

INEQUALITIES

EDITED BY: Hannah Bradby, Valeria Pulignano, Kath Woodward,
Guillermina Jasso, William Outhwaite and Kassia Ruth Wosick
PUBLISHED IN: Frontiers in Sociology and Frontiers in Psychology





frontiers

Frontiers eBook Copyright Statement

The copyright in the text of individual articles in this eBook is the property of their respective authors or their respective institutions or funders. The copyright in graphics and images within each article may be subject to copyright of other parties. In both cases this is subject to a license granted to Frontiers.

The compilation of articles constituting this eBook is the property of Frontiers.

Each article within this eBook, and the eBook itself, are published under the most recent version of the Creative Commons CC-BY licence.

The version current at the date of publication of this eBook is CC-BY 4.0. If the CC-BY licence is updated, the licence granted by Frontiers is automatically updated to the new version.

When exercising any right under the CC-BY licence, Frontiers must be attributed as the original publisher of the article or eBook, as applicable.

Authors have the responsibility of ensuring that any graphics or other materials which are the property of others may be included in the CC-BY licence, but this should be checked before relying on the CC-BY licence to reproduce those materials. Any copyright notices relating to those materials must be complied with.

Copyright and source acknowledgement notices may not be removed and must be displayed in any copy, derivative work or partial copy which includes the elements in question.

All copyright, and all rights therein, are protected by national and international copyright laws. The above represents a summary only. For further information please read Frontiers' Conditions for Website Use and Copyright Statement, and the applicable CC-BY licence.

ISSN 1664-8714

ISBN 978-2-88976-621-5

DOI 10.3389/978-2-88976-621-5

About Frontiers

Frontiers is more than just an open-access publisher of scholarly articles: it is a pioneering approach to the world of academia, radically improving the way scholarly research is managed. The grand vision of Frontiers is a world where all people have an equal opportunity to seek, share and generate knowledge. Frontiers provides immediate and permanent online open access to all its publications, but this alone is not enough to realize our grand goals.

Frontiers Journal Series

The Frontiers Journal Series is a multi-tier and interdisciplinary set of open-access, online journals, promising a paradigm shift from the current review, selection and dissemination processes in academic publishing. All Frontiers journals are driven by researchers for researchers; therefore, they constitute a service to the scholarly community. At the same time, the Frontiers Journal Series operates on a revolutionary invention, the tiered publishing system, initially addressing specific communities of scholars, and gradually climbing up to broader public understanding, thus serving the interests of the lay society, too.

Dedication to Quality

Each Frontiers article is a landmark of the highest quality, thanks to genuinely collaborative interactions between authors and review editors, who include some of the world's best academicians. Research must be certified by peers before entering a stream of knowledge that may eventually reach the public - and shape society; therefore, Frontiers only applies the most rigorous and unbiased reviews.

Frontiers revolutionizes research publishing by freely delivering the most outstanding research, evaluated with no bias from both the academic and social point of view. By applying the most advanced information technologies, Frontiers is catapulting scholarly publishing into a new generation.

What are Frontiers Research Topics?

Frontiers Research Topics are very popular trademarks of the Frontiers Journals Series: they are collections of at least ten articles, all centered on a particular subject. With their unique mix of varied contributions from Original Research to Review Articles, Frontiers Research Topics unify the most influential researchers, the latest key findings and historical advances in a hot research area! Find out more on how to host your own Frontiers Research Topic or contribute to one as an author by contacting the Frontiers Editorial Office: frontiersin.org/about/contact

INEQUALITIES

Topic Editors:

Hannah Bradby, Uppsala University, Sweden

Valeria Pulignano, KU Leuven, Belgium

Kath Woodward, The Open University (United Kingdom), United Kingdom

Guillermina Jasso, New York University, United States

William Outhwaite, Newcastle University, United Kingdom

Kassia Ruth Wosick, El Camino College, United States

Citation: Bradby, H., Pulignano, V., Woodward, K., Jasso, G., Outhwaite, W., Wosick, K. R., eds. (2022). Inequalities. Lausanne: Frontiers Media SA.
doi: 10.3389/978-2-88976-621-5

Table of Contents

- 05 Editorial: Inequalities**
Hannah Bradby, Guillermina Jasso, William Outhwaite, Valeria Pulignano and Kath Woodward
- 08 The Effect of the Irreversible Inequality on Pro-social Behaviors of People With Disabilities**
Shen Liu, Zhongchen Mou, Wenlan Xie, Chong Zhang, Yijun Chen, Wen Guo, Xiaochu Zhang and Lin Zhang
- 15 Sociology, Social Class, Health Inequalities, and the Avoidance of "Classism"**
Graham Scambler
- 19 Invisibility of Racism in the Global Neoliberal Era: Implications for Researching Racism in Healthcare**
Beth Maina Ahlberg, Sarah Hamed, Suruchi Thapar-Björkert and Hannah Bradby
- 28 Are Sexist Attitudes and Gender Stereotypes Linked? A Critical Feminist Approach With a Spanish Sample**
Rubén García-Sánchez, Carmen Almendros, Begoña Aramayona, María Jesús Martín, María Soria-Oliver, Jorge S. López and José Manuel Martínez
- 42 The Passive Origin of the Institutionalization of Power Inequality in the Meaning/Experience of Womanhood in Igboland**
Dominic Ekweariri
- 55 Occupational Attributes and Occupational Gender Segregation in Sweden: Does It Change Over Time?**
Ingvill Bagøien Hustad, Johan Bandholtz, Agneta Herlitz and Serhiy Dekhtyar
- 63 Alzheimer's Patient Organizations' Role in Enabling Citizenship Projects: A Comparison of the USA, Germany, and the UK**
Sayani Mitra and Silke Schicktanz
- 74 Gender Bias in Justice Evaluations of Earnings: Evidence From Three Survey Experiments**
Carsten Sauer
- 89 In Search of the Missing Links Between Economic Insecurity and Political Protest: Why Does Neoliberalism Evoke Identity Politics Instead of Class Interests?**
Juha Siltala
- 103 Gender Bias in the Evaluation of Teaching Materials**
Asri Özgümüş, Holger A. Rau, Stefan T. Trautmann and Christian König-Kersting
- 112 Spanish Women Making Risky Decisions in the Social Domain: The Mediating Role of Femininity and Fear of Negative Evaluation**
Laura Villanueva-Moya and Francisca Expósito

- 122** *LGBTQs and LAW'S Violence Within a Heteronormative Landscape*
Anthony Donnelly-Drummond
- 130** *Does Where You Live Matter? An Analysis of Intergenerational
Transmission of Education Among Hispanic Americans*
Sharron Xuanren Wang and Arthur Sakamoto



Editorial: Inequalities

Hannah Bradby^{1*}, Guillermina Jasso², William Outhwaite³, Valeria Pulignano⁴ and Kath Woodward⁵

¹ Department of Sociology, Uppsala University, Uppsala, Sweden, ² Department of Sociology, New York University, New York, NY, United States, ³ Sociology, Newcastle University, Newcastle upon Tyne, United Kingdom, ⁴ Centre for Sociological Research, KU Leuven, Leuven, Belgium, ⁵ Department of Sociology, The Open University, Milton Keynes, United Kingdom

Keywords: overall inequality and subgroup inequality, inequality in quantitative characteristics (like schooling/income/wealth), inequality across qualitative characteristics (like gender/race/ethnicity/nativity/citizenship), effects of qualitative characteristics on own behaviors and others' assessments, inequality and poverty/justice/status/power, intergenerational and intersectionality mechanisms, national and subnational contexts and cultures, inequality mechanisms in politics and social movements

Editorial on the Research Topic

Inequalities

Inequality is a foundational topic for sociology, and a core topic, in one way or another, for all the social sciences. Inequality research, whose origins can be traced to Confucius (551-479 BCE) and Plato (428/427-348/347 BCE), spans theoretical and empirical analyses (1) of inequality itself, such as its properties and measures across the vast domains of the natural and social goods and bads, from schooling, work, and health to burdens and punishments to income and wealth; (2) of the mechanisms that establish, entrench, and transmit it across generations and locations; (3) of the types of inequality, such as inequality between persons and inequality between subgroups, and their link; and (4) of the broader connections among inequality, poverty, and justice, as well as happiness and social cohesion. This Research Topic includes contributions toward understanding the sociological landscape of inequality, along with investigations of the mechanisms that bring about inequalities at the interpersonal level, and more speculative consideration of the macro-processes at policy and population level which allow injurious inequalities to flourish and offer explanations of their endurance.

While inequality can occur in all contexts of category and differentiation, such as race, ethnicity, nativity, religion, sex, gender and sexuality, generation, embodiment, disability, and class, most of the original research in this Research Topic focuses on sex and gender. Below is an indexing of all the contributions, by article type. While disability, immigration, LGBTQI, and racialized identities are mentioned, it is the investigation of gendered roles, expectations, and stereotypes that dominate this snapshot of inequality research. While gender is the most investigated aspect of inequality in this Research Topic of papers, it is also difficult to draw conclusions from across the papers because the range of theoretical and methodological approaches to gender is wide. Gendered aspects of social life, such as occupational attributes and bias in student evaluations are assessed in this Research Topic, alongside an assessment of the performance of sexism scales that were validated decades ago. One of the most original approaches to gender is the investigation of womanhood in Igbo land that teases out how gendered oppression of women persists across time and through generations.

While this Research Topic of papers is not tightly focused, it does illustrate the great potential for empirical, methodological and theoretical research around the vast inequality landscape, tracing ever more closely how inequality operates and how it increases and decreases. Particularly welcome will be approaches to understanding inequality that pay heed to more than one dimension of inequality, as the non-additive nature of how gender, class, dis/ability, sexuality and racialization play out intersectionally.

OPEN ACCESS

Edited and reviewed by:

Esther Lopez-Zafra,
University of Jaén, Spain

*Correspondence:

Hannah Bradby
hannah.bradby@soc.uu.se

Specialty section:

This article was submitted to
Gender, Sex and Sexualities,
a section of the journal
Frontiers in Sociology

Received: 05 May 2022

Accepted: 30 May 2022

Published: 28 June 2022

Citation:

Bradby H, Jasso G, Outhwaite W,
Pulignano V and Woodward K (2022)
Editorial: Inequalities.
Front. Sociol. 7:937162.
doi: 10.3389/fsoc.2022.937162

ORIGINAL RESEARCH

Hustad et al. analyze administrative and self-reported data to consider whether occupational attributes are associated with a sex-distribution in Sweden. The proportion of women was shown to be on average higher in occupations classified as “verbally demanding” and “people oriented” and lower in those classified as “numerically demanding” and “things oriented”. During the ten-year period of study (2002–2011) and including all Swedish occupations, the occupational gender segregation declined.

Garcia-Sanchez et al. investigate the psychometric properties of three sexism scales in a sample of 700 undergraduates, to show that men showed greater support for sexist attitudes than women. The authors seek to understand how gender stereotypes and gender role attitudes relate to each other by comparing scores between scales and classifying their sample in terms of stereotype and of attitude. Since gender concepts constantly evolve, sexism scales that are 30 years out of date do not reflect the changing position of women in society and the development of sexism, so need updating.

Villanueva-Moya and Exposito explore how gender roles can contribute to understanding behaviors that are often considered to be gendered, in this case risk-taking. The authors focus on self-reporting from a sample of 417 Spanish adults around their femininity, fear of negative evaluation and social risk taking, to differentiate how gender roles may influence sex-differences in behavior.

Sauer considers what is referred to as the *justice evaluation* of earnings, that is whether or not people evaluated a gender pay gap as legitimate in Germany. A student sample had no gender bias in their evaluation of appropriate pay for men and women, whereas a population survey showed that men and women rated men as more deserving of higher salary. Respondents in settings characterized by high gender pay gaps produced a larger bias favoring men.

Wang and Sakamoto consider intergenerational transmission of education as an indicator of inclusiveness and inequality among Hispanic Americans. Greater educational attainment, when linked to better labor market outcomes is seen as a crucial motor of immigrant integration. Results from this study indicate how the intergenerational transmission of education varies between Hispanic and non-Hispanic White men and women and takes into account contextual demographic characteristics, such as the percentage of college educated people in the county.

Liu et al. investigate pro-social behavior among people with irreversible physical disabilities and people without disabilities, positing people with disabilities as being at a stable and unchanging social disadvantage. A group of 102 men and women from Zhejiang province, China, of which half had disabilities, participated in a “dictator game”, used to test generosity and cooperative strategies. Within the game, compared to people without disabilities, people with disabilities showed more generous and cooperative social strategies, confirming previous studies.

Özgümüs et al. examine gender bias in the evaluation of teaching materials. Through constructing various experiments wherein subjects evaluate a named fictitious instructor’s lecture

slides, the study shows that evaluation bias is not due to differences in class room experience and thereby question how student evaluations are currently used in higher education.

Mitra and Schickltanz offer an analysis of how Alzheimer disease patient support organizations construct patients’ rights. By comparing how patient organizations from the United States, Germany and the United Kingdom set out patients’ rights in website text, the authors argue that the context of the healthcare regime sets up path dependencies for how citizenship can be constructed. These path dependencies help explain the differential modes of performing or contesting citizenships that the authors describe in the website texts in the three national settings.

POLICY AND PRACTICE REVIEW

Donnelly-Drummond considers how exemptions for equality legislation in the UK constitute a form of violence against LGBTQ people. The discussion centers on two cases of religious exemption from sexual orientation discrimination, so as to reinforce heteronormativity in a way that is argued to perpetuate harm against LGBTQ people, such that the exemptions should not be permitted.

HYPOTHESIS AND THEORY

Ekweariri gives an in-depth exploration of the meaning and experience of womanhood in Igbo land (south eastern Nigeria) with particular focus on what is implied by women being the property of men. Ekweariri argues that the oppressive depictions of women are not consciously intended by the agents involved, a proposition that has implications for how gendered subservience persists despite the original context of relationships between wife and husband is long gone.

COMMENTARY

Condon et al. underline that the COVID-19 pandemic risks exacerbating health inequalities, leading to worsening outcomes for families that face discrimination due to their status as Black, indigenous, people of color.

REVIEW

Ahlberg et al. examine how racism plays out and is exacerbated by neoliberal forms of welfare state reform in an era of globalized migration. As welfare provision is subject to market logics, hiring migrant labor to reduce costs becomes a norm, while racist populism blames immigrants for restrictions in access to welfare services. The shift of power toward global elites implied by the erosion of collective responsibility for welfare provision is part of the difficulty of making racialized power structures visible to critical analysis and allows entrenched inequality to go unremarked upon.

Siltala's review paper considers the origins of the post-financial-crash-of-2008 shift toward right wing populism. Using political psychology, he considers how economic uncertainty can lead people to abandon class-based identification for other forms of identity politics. Conceptualizing populations as risk-averse right-wing authoritarians and social-dominance oriented risk takers, Siltala discusses why identity politics is more useful to right wing movements than left wing movements.

OPINION

Scambler asserts the primacy of class over other forms of social stratification and division that drive health inequalities. The reduced relevance of class for subjective identities, does not affect the ongoing material, objective, more quantifiable impact. A personal and powerful call to sociologists to stand their ground in interrogating and calling out the harms that capitalist systems perpetuate against the health of the working class.

AUTHOR CONTRIBUTIONS

All authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication.

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's Note: All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

Copyright © 2022 Bradby, Jasso, Outhwaite, Pulignano and Woodward. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.



The Effect of the Irreversible Inequality on Pro-social Behaviors of People With Disabilities

Shen Liu^{1,2†}, Zhongchen Mou^{1,3†}, Wenlan Xie^{1,4†}, Chong Zhang⁵, Yijun Chen⁶, Wen Guo², Xiaochu Zhang^{2,6,7,8*} and Lin Zhang^{1*}

¹ Department and Institute of Psychology, Ningbo University, Ningbo, China, ² School of Humanities and Social Science, University of Science and Technology of China, Hefei, China, ³ School of Psychology, Nanjing Normal University, Nanjing, China, ⁴ Ningbo Institute of Education, Ningbo, China, ⁵ Department of Mechanical and Automation Engineering, The Chinese University of Hong Kong, Hong Kong, China, ⁶ CAS Key Laboratory of Brain Function and Disease, School of Life Sciences, University of Science and Technology of China, Hefei, China, ⁷ Hefei Medical Research Center on Alcohol Addiction, Anhui Mental Health Center, Hefei, China, ⁸ Academy of Psychology and Behavior, Tianjin Normal University, Tianjin, China

OPEN ACCESS

Edited by:

Kath Woodward,
The Open University, United Kingdom

Reviewed by:

Lumei Tian,
Shandong Normal University, China
Yang Zhang,
Soochow University, China
Zhao Xin,
Northwest Normal University, China

*Correspondence:

Lin Zhang
zhanglin1@nbu.edu.cn
Xiaochu Zhang
zxcustc@ustc.edu.cn

[†]These authors have contributed
equally to this work

Specialty section:

This article was submitted to
Gender, Sex and Sexuality Studies,
a section of the journal
Frontiers in Psychology

Received: 22 November 2018

Accepted: 04 January 2019

Published: 31 January 2019

Citation:

Liu S, Mou Z, Xie W, Zhang C,
Chen Y, Guo W, Zhang X and Zhang L
(2019) The Effect of the Irreversible
Inequality on Pro-social Behaviors
of People With Disabilities.
Front. Psychol. 10:12.
doi: 10.3389/fpsyg.2019.00012

Inequalities have always been central to psychology, sociology and related fields such as social policy, gender studies, critical race studies, and human geography. Although inequality affects pro-social behaviors, there are still some controversies over this issue among people with disabilities. The current study aimed to investigate pro-social behaviors of people with disabilities and the effect of the irreversible inequality on pro-social behaviors. A dictator game was used to explore the difference of pro-social behaviors between people with disabilities and people without disabilities, when facing intra- or inter-group members. The results showed that compared to people with disabilities, people without disabilities were likely to show more pro-social behaviors. People with disabilities preferred intra-group cooperation, while people without disabilities preferred inter-group cooperation. Indeed, the intra-group cooperation was significantly greater than the expected cooperation of the intra-group members for people with disabilities. When facing the inter-group members, people without disabilities showed more than expected, that others would cooperate with them. These findings indicated that social avoidance was a common phenomenon for people with disabilities in China, but the situation would be different when they faced different groups. In addition, irreversible inequality could influence individuals' cooperative strategies when facing individuals in a different status.

Keywords: irreversible inequality, pro-social behaviors, reciprocity, people with disabilities, discrimination

INTRODUCTION

Inequality has always been central to psychology, sociology and related fields such as social policy, gender studies, critical race studies and human geography. There is evidence that people with disabilities have lower social capital than people without disabilities (Mithen et al., 2015). Many studies have shown that reversible inequality (e.g., wealth, power, and status) influences pro-social behaviors (Han et al., 2009; Rao et al., 2011; Caprara et al., 2012; Inesi et al., 2012; Lammers et al., 2012; Cai et al., 2016). However, there are still some controversies over the issue of irreversible

inequality among people with disabilities. Some studies show that compared to disadvantaged people (low-power individuals), people in a dominant position (high-power individuals) always show more selfishness, hindering their understanding of others' emotions, keeps them away from others, and inhibits their pro-social behaviors (Lammers and Stapel, 2011; Gwinn et al., 2013; Magee and Smith, 2013). Other studies demonstrate that individuals in a dominant position always show more pro-social behaviors due to the evoked altruistic traits and enhanced control of valuable resources, than those in a dominated position (Han et al., 2009; Kraus et al., 2011; Rao et al., 2011; DeCelles et al., 2012; Williams, 2014; Liu et al., 2018), and disadvantaged people always show more pro-social behaviors toward others, than advantaged people do (Han et al., 2009; Rao et al., 2011). Han et al. (2009) showed that pre-school children playing in their own classroom made fewer offers (cookies) in the game than those cooperating with others. Liu et al. (2018) found that disabled people preferred to interact with other disabled people and had higher cooperation, satisfaction and sense of justice when interacting with disabled people than when interacting with abled people. It is considered that pro-social behaviors of humans also differ when they face individuals in different status groups (intra- or inter-group).

However, in previous studies, the status of people with disabilities was mostly temporary or reversible in experiments. Rao et al. (2011) revealed that the degree of pro-social behaviors increased with an increasing level of residential devastation, but decreased with the passage of time. Moreover, with the improvement of the disadvantageous status, their pro-social behaviors gradually reduced. Then, if the advantageous and disadvantageous status is irreversible or stable in the long term, will irreversible inequality affect pro-social behaviors? Some studies show that when advantaged people believed others couldn't be any potential threat to their status, they tended to allocate more resources and showed more pro-social behaviors to the inferior, for a perceived sense of social responsibility (Handgraaf et al., 2008). Thus, the current study hypothesized that people with an irreversible advantage showed more pro-social behaviors than people with a disadvantage. Therefore, it's necessary to explore the pro-social behaviors of people with disabilities and people without disabilities, when they face intra- and inter-group members and its underlying mechanism.

The mechanism of pro-social behavior is a hot topic in the field of social psychology. Researchers have put forward various theories and models to explain pro-social behaviors, such as the kin selection, the group selection and the reciprocation (Jones, 2018). The group select, also called the group selection theory, suggests that individuals are more willing to help members in the same group (de Dreu et al., 2010). Pro-social behaviors occurring between strangers can be explained by the reciprocity theory. The early reciprocal theory suggested that people showed pro-social behaviors for the purpose of benefitting the individual, and fundamentally emphasized the self-interest tendency of pro-social behaviors, which is a kind of direct or indirect reciprocity (Trivers, 1971; Axelrod and Hamilton, 1997). However, the late strong reciprocity theory focuses on the individuals' own

existence. This theory proposes that pro-social behaviors are not an act out of the tendency of self-interest, but one's better survival (Gintis et al., 2003; West et al., 2007; Xie et al., 2013). Therefore, the mechanisms for showing pro-social behaviors may be different when individuals face intra- and inter-group members.

Different from previous studies, the current study selected people with disabilities as individuals at the irreversible disadvantage. Compared with people without disabilities, the physical disabilities of people with disabilities are difficult to change. Their employment rate and salaries are also lower than abled people, even though the government has passed laws to protect their interests (Deleire, 2000). In addition, most people with disabilities reported discrimination and unfair treatment from people without disabilities (Moore et al., 2011). Because of the existence of discrimination, people with disabilities often question their own abilities, feel inferior to people without disabilities and have low self-esteem, which can lead to serious psychological and social adaptation problems (Santuzzi, 2011). In this study, unfairness is an irreversible and long-term stable factor. Thus, it can be considered that people with disabilities are at a irreversible and stable disadvantage. This study explores the differences and mechanisms of pro-social behaviors between disadvantaged people and advantaged people, when facing intra- and inter-group members, mainly according to the Group Selection Theory.

From the discussion above, the current study explored the following three issues: (a) The pro-social behaviors of people with disabilities and people without disabilities; (b) and how irreversible inequality affected their pro-social behaviors. In other words, what was the difference between pro-social behaviors of people with disabilities and people without disabilities when they faced intra- and inter-group members? And (c) The mechanism of pro-social behaviors of people with disabilities and people without disabilities when they faced intra- and inter-group members.

MATERIALS AND METHODS

Participants

A total of 102 residents in the Zhejiang province in China were recruited, including 47 participants with disabilities (30 males, 17 females) with an average age of 46.8 years ($SD = 6.1$), and 55 participants without disabilities (20 males, 35 females) with an average age of 48.2 years ($SD = 8.3$). Participants with disabilities were of normal intelligence and had a PRC Certificate of Disabled Person. All individuals were measured one-to-one. The entire experiment process completely followed the voluntary principle. A small gift was offered in return for participation. The Ethics Committee of Ningbo University approved this study, in accordance with the ethical principles of the Declaration of Helsinki.

Dictator Game and Expectation Game

Behavioral economists have used dictator games for over two decades to study pro-social behavior (Hoffman et al., 1994).

This game is a particularly interesting way to test generosity and pro-social behavior, because it is an asymmetric game that the recipient is obliged to accept the sum offered by the dictator. Because the dictator does not have to fear the rejection of its proposal, as in the ultimatum game, the motivations behind a dictator's behavior are assumed to be free of strategic considerations (Thunström et al., 2016; Ibanez et al., 2017; Miklánek, 2018; Thielmann and Hilbig, 2018). In the most common version of the game, the dictator receives an initial endowment of \$10 and is asked what amount he is willing to share with an anonymous co-player (Schier et al., 2016). The current study modified the traditional dictator game, distinguished the participants by types (intra-group and inter-group) with whom the participants were going to cooperate, and increased the expectations of others pro-social behaviors, to investigate the attitudes and behaviors of people with disabilities and people without disabilities, when they faced intra- or inter-group members. The experiments were single blind. The detailed materials are described in the following section.

DICTATOR GAME:

Suppose now you are provided with ¥100 in cash and are asked to propose a division of ¥100 between yourself and an anonymous person:

If the anonymous person has a disability, you will offer ¥_____ to him.

If the anonymous person does not have a disability, you will offer ¥_____ to him.

EXPECTATION GAME:

Suppose now that an anonymous person is provided with ¥100 in cash and is asked to propose a division of ¥100 between themselves and you:

If the anonymous person has a disability, you expect that you will be offered ¥_____.

If the anonymous person does not have a disability, you expect that you will be offered ¥_____.

In the Dictator Game, the amount offered by the recipient was used as the measure of actual pro-social behaviors. In the Expectation Game, the amount offered by the recipient was considered as the expectation of pro-social behaviors of others.

Design and Data Analysis

A 2 (types of participants: people with disabilities/people without disabilities) \times 2 (types of tasks: cooperation/expectation) \times 2 (types of groups: intra-group/inter-group) ANOVA was used to the types of participants as the between-subject factor, and types of tasks and types of groups as the within-subject factors. The dependent variable was the amount of money offered by the participants. The mean money offered by participants were collated and calculated with SPSS 19.0, and the significance level was set at $p < 0.05$.

RESULTS

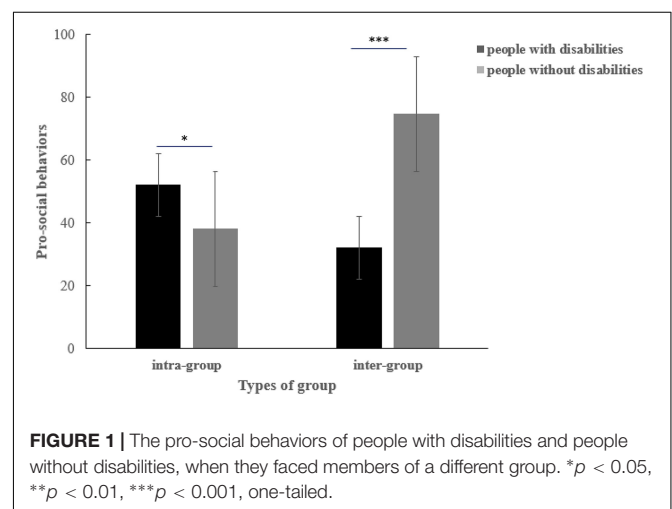
Pro-social Behaviors of People With Disabilities and People Without Disabilities

An independent sample t -test was conducted to measure the difference between the pro-social behaviors of people with disabilities and people without disabilities. Results indicated a significant difference ($t_{100} = -2.675, p < 0.01, d = -0.62$). People with disabilities ($M = 84.35, SD = 51.60$) showed fewer pro-social behaviors than people without disabilities ($M = 112.91, SD = 38.95$). In other words, compared to people with disabilities, people without disabilities were likely to show more pro-social behaviors.

Pro-social Behaviors of People With Disabilities and People Without Disabilities When They Faced Intra- and Inter-Group Members

In order to investigate pro-social behaviors of people with disabilities and people without disabilities when they faced intra- and inter-group members, a 2 (types of participants: people with disabilities/people without disabilities) \times 2 (types of tasks: cooperation/expectation) \times 2 (types of groups: intra-group/inter-group) ANOVA was used, with the types of participants as the between-subject factor and the types of tasks and types of groups as the within-subject factor. Results indicated a significant main effect of types of tasks [$F(1,100) = 19.18, p < 0.001, \eta_p^2 = 0.213$], and no significant main effect of the types of participants was found [$F(1,100) = 3.11, p = 0.082$]. In addition, the main effect of the types of groups also reported no significant difference [$F(1,100) = 0.408, p = 0.525$].

There was an interaction between types of participants and types of tasks [$F(1,100) = 33.71, p < 0.001, \eta_p^2 = 0.322$]. An interactive analysis was conducted (see **Figure 1**) in order to investigate the difference between pro-social behaviors of people with disabilities and people without disabilities, when



they faced the intra- and inter-group members. Compared to people without disabilities ($M = 38.18$, $SD = 2.72$), people with disabilities ($M = 52.17$, $SD = 4.21$) showed more pro-social behaviors when they faced intra-group members [$F(1,100) = 7.78$, $p < 0.01$, $\eta_p^2 = 0.093$]. However, people with disabilities ($M = 32.17$, $SD = 6.01$) showed fewer pro-social behaviors than people without disabilities [$M = 74.73$, $SD = 3.93$; $F(1,100) = 34.57$, $p < 0.001$, $\eta_p^2 = 0.313$] when they faced inter-group members. Namely, people with disabilities preferred intra-group cooperation while people without disabilities preferred inter-group cooperation.

There were interactions between types of participants and types of groups [$F(1,100) = 6.30$, $p < 0.01$, $\eta_p^2 = 0.082$], types of tasks and types of groups [$F(1,100) = 5.13$, $p < 0.05$, $\eta_p^2 = 0.067$], and there was a three-way interaction between types of participants and types of tasks [$F(1,100) = 16.96$, $p < 0.001$, $\eta_p^2 = 0.193$]. To break up the three-way interaction, the current study analyzed pro-social behaviors and the expectation of people with disabilities and people without disabilities, respectively.

For people with disabilities, a 2 (types of tasks: intra-group/inter-group) \times 2 (types of groups: intra-group/inter-group) within-subject ANOVA was conducted. Results indicated a significant main effect of types of tasks [$F(1,46) = 9.38$, $p < 0.01$, $\eta_p^2 = 0.056$], no significant main effect of types of groups [$F(1,46) = 1.01$, $p = 0.33$], and no significant interaction [$F(1,46) = 1.14$, $p = 0.30$]. A paired sample t -test (see Figure 2) showed that intra-group cooperation ($M = 51.11$, $SD = 4.64$) was significantly greater than the expected cooperation ($M = 40.56$, $SD = 7.29$) of the intra-group members ($t_{100} = 2.20$, $p < 0.01$, $d = 1.71$).

For people without disabilities, a 2 (types of tasks: intra-group/inter-group) \times 2 (types of groups: intra-group/inter-group) within-subject ANOVA was conducted. Results indicated a significant main effect of types of tasks [$F(1,54) = 41.38$, $p < 0.001$, $\eta_p^2 = 0.43$], a significant main effect of types of groups [$F(1,54) = 50.56$, $p < 0.001$, $\eta_p^2 = 0.48$], and a significant interaction [$F(1,54) = 41.31$, $p < 0.001$, $\eta_p^2 = 0.433$].

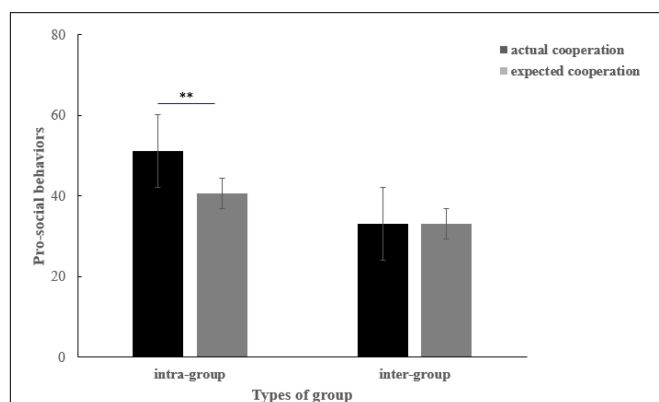


FIGURE 2 | The actual and expected cooperation of people with disabilities when they faced intra-group and inter-group members, respectively. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, one-tailed.

An interactive analysis was conducted and results are illustrated in Figure 3. When facing inter-group members, people without disabilities offered more ($M = 74.73$, $SD = 3.68$) than they expected others would cooperate with them [$M = 37.10$, $SD = 3.18$; $F(1,54) = 49.27$, $p < 0.001$, $\eta_p^2 = 0.477$]. In addition, there was no significant difference between expectation ($M = 36.91$, $SD = 3.16$) and real cooperation ($M = 38.18$, $SD = 2.70$) when they faced members in intra-groups [$F(1,54) = 0.73$, $p = 0.397$].

A further analysis was also conducted between the expected cooperation of people with disabilities and the actual cooperation of people without disabilities, as well as the expectation cooperation of people without disabilities and the real cooperation of people with disabilities. Surprisingly, results demonstrated that the former showed a significant difference ($t_{100} = -6.04$, $p < 0.001$, $d = 1.21$), and the latter showed no significant effect ($t_{100} = 0.176$, $p = 0.861$). It indicated that people with disabilities might have a misunderstanding of people without disabilities, showing more cooperation ($M = 74.73$, $SD = 27.24$) than people with disabilities expected ($M = 31.11$, $SD = 28.41$). However, the expectations of people without disabilities ($M = 37.11$, $SD = 23.85$) were consistent with the real cooperation of people with disabilities ($M = 35.11$, $SD = 30.85$; see Figure 4).

DISCUSSION

The current study aims to investigate the effect of irreversible inequality on cooperation or pro-social behaviors. Compared to people without disabilities, people with disabilities were selected as individuals with an irreversible inequality status, to explore the difference of pro-social behaviors when they faced intra- or inter-group members and its underlying mechanism. Results indicated that people without disabilities were likely to show more pro-social behaviors compared to people with disabilities. It was consistent with previous studies (Kraus et al., 2011;

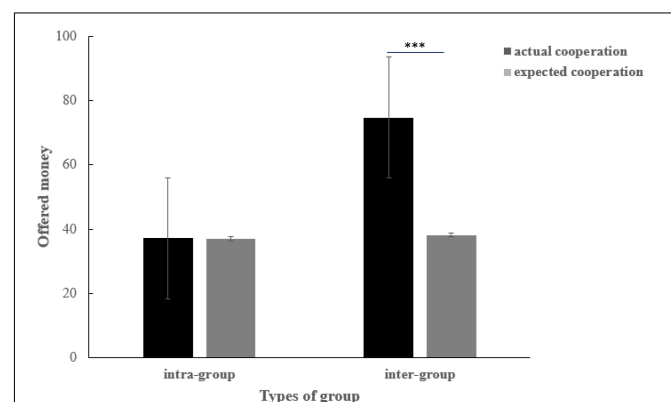
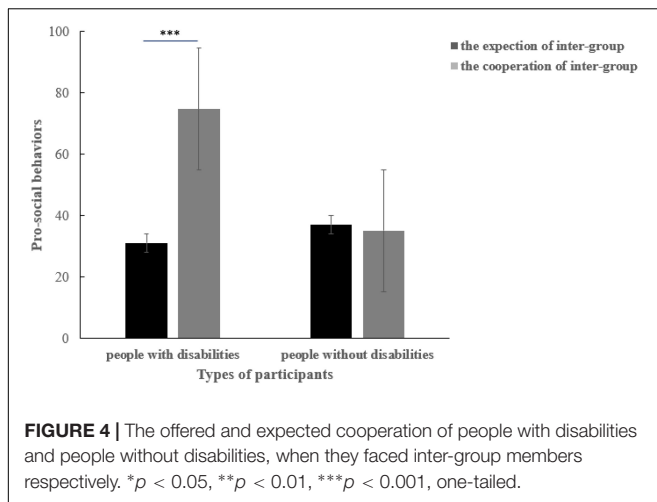


FIGURE 3 | The actual and expected cooperation of people with disabilities and people without disabilities, when they faced members of the intra-group and inter-group, respectively. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, one-tailed.



DeCelles et al., 2012; Williams, 2014). In general, people without disabilities had higher cooperation compared to people with disabilities.

However, when individuals faced members in a different status, results were different. Results showed that people with disabilities preferred intra-group cooperation, while people without disabilities preferred inter group cooperation. According to previous studies, when people without disabilities believed others couldn't pose any potential threat on their status, they tended to allocate more resources and showed more pro-social behaviors to the inferior, for a perceived sense of social responsibility (Handgraaf et al., 2008). When they faced individuals of the same status, the sense of responsibility might decline. For people with disabilities, the mutual aid could serve as an adaptive mechanism to increase the individual's survival opportunities (Rao et al., 2011), so they would show more pro-social behaviors when they faced individuals of the same status. However, studies have shown that most people with disabilities reported discrimination and unfair treatment from people without disabilities (Moore et al., 2011), therefore the long-term disadvantaged position of people with disabilities would eventually lead to their misunderstanding of people without disabilities. In the current study, people with disabilities offered less to the advantaged, which might be due to the perceived discrimination.

It is also important to discuss the mechanisms of showing pro-social behaviors, when people with disabilities and people without disabilities faced individuals of a different status. When people without disabilities faced inter-group members, they offered more than they expected others would cooperate with them. On the contrary, when people with disabilities faced intra-group members, they offered more than they expected others would cooperate with them. Strong reciprocity might play a role in both cases (Gintis et al., 2003; West et al., 2007; Xie et al., 2013). There was no significant difference between expectation and real cooperation when people without disabilities were in intra-groups and people with disabilities were in inter-groups. Direct or indirect reciprocity might occur (Trivers, 1971; Axelrod

and Hamilton, 1997). Therefore, the irreversible inequality could influence the cooperative strategies of people without disabilities when they faced individuals of a different status.

Overall, the results provided another perspective of cooperation between individuals in the irreversible inequality status. When individuals have a different status but are not in a competitive circumstance, "in-group favoritism"—e.g., individuals offer more cooperation to the intra-group than to the inter-group (Masuda, 2012), but to some extent, this may not always be the case. Individuals in irreversible dominance were against the "intra-group favoritism," and offered more cooperation, which supports that individuals with an advantage would provide more help (Han et al., 2009; Kraus et al., 2011; Rao et al., 2011; DeCelles et al., 2012; Williams, 2014). In the current study, when they faced inter-group members, people without disabilities offered more than they expected others would cooperate with them. In this circumstance, strong reciprocity might occur, and the effect was much stronger than "favor." Or it could be a performance of inequality-averse social preferences. For example, Tricomi et al. (2010) found that those with an advantage (high-pay) status preferred monetary transfer that reduced inequality. In the current study, people without disabilities possessed a same body, just like the high-pay participants with an advantage status.

On the contrary, there is a difference for those with an irreversible disadvantaged status. There might be two reasons: (i) they do not distinguish themselves from others, or (ii) they may misunderstand the justice of the distribution when they face different group members. The first assumption has been denied due to the groups' apparent difference, and showed more cooperation than those with an advantageous status, when status was analyzed as a cooperation target, respectively. It indicated that the inferior showed more cooperative willingness in same status than the superior. This finding, as an index, was congruent with the theory that a disadvantage made people more cooperative to some extent. The second assumption might be reflected by the average amount of money offered by people with disabilities: ¥52.17 and ¥32.17 (the former for people with disabilities and the latter for people without disabilities) and the average of the actual amount of money offered by people without disabilities ($M = 74.73$) was more than the expected average amount for people without disabilities ($M = 31.11$).

In addition, individuals' expectation does not always conform to cooperation offered by others. A noteworthy finding was that there was a big misunderstanding of the recognition of people with disabilities between their expectancy and others' offerings. Our findings were consistent with previous studies. In addition, it should be pointed out that the inferior considered individuals in the same status and gave them more help than those in a different status. However, those at the advantage showed no difference between the same status and the different status. It could also be supposed that the inferior had a bias toward others. Taking people with disabilities into account, the perceived stigma might be considered. From another point of view, the fact that individuals at the advantage offered more help to the inferior could be regarded as a source of stigma. In Chen and Shu's (2012) study, they found that abled students provided with additional

support through handicapped identity cards, also demonstrated a source of stigma.

The current study has some implications. Firstly, the government should promote the social security and service system of people with disabilities, especially by improving their social status and value, not just raising their income. Promoting the social status of people with disabilities may reduce their social avoidance; subsequently, alleviating negative emotions such as anxiety and depression. It is imperative to eliminate others' discrimination toward people with disabilities as well as their self-discrimination, through the use of mass media or through support from other people. The discrimination that those with disabilities perceive stems from self-reports, which is non-existent. The public and government can use public services to advertise and provide assistance to eliminate discrimination, which is perceived as wrong, and people without disabilities should be educated on how to communicate and assist people with disabilities in correct and considered ways. Last but not the least, cognitive training services to improve the negative cognitive bias (such as attentional and interpretational bias toward social cues) toward people with disabilities are also needed, as some studies have shown that people with disabilities have attentional sensitivities to negative social emotions, and greater negative interpretational bias to the ambiguous social cues (Zhang et al., 2014, 2015; Mou et al., 2017). Therefore, people with disabilities also misunderstand others' intentions. Based on the aforementioned findings, the current study encourages methods that can be adopted to intervene with attentional and interpretational processing characteristics, such as specialized attentional training which by repeatedly presenting positive and pleasant external stimuli, gradually improves the habitual attention and interpretation of people with disabilities to process tendency, thereby, eliminating others' discrimination and promoting pro-social behaviors, improving their physical and mental health.

However, there are still some limitations of the current study that need to be improved in future studies. First, it should be noted that the current study used the non-repeated game and corresponding results may be unstable. Second, although people with disabilities are the vulnerable groups, they cannot represent all groups at a disadvantage. Therefore, the social exchange process and other types of participant selection need to be considered in future studies. What's more, the study did not take the effect of environmental factors on pro-social behaviors into

consideration, for example, a competitive condition can be set to explore the mechanism of reciprocity and "in-group favoritism."

CONCLUSION

The current study found that compared to people with disabilities, people without disabilities were likely to show more pro-social behaviors. People with disabilities preferred intra-group cooperation, while people without disabilities preferred inter-group cooperation. For the people with disabilities, intra-group cooperation was significantly greater than the expected cooperation of intra-group members. When facing inter-group members, people without disabilities offered more than they expected others would cooperate with them. It indicated that social avoidance was a common phenomenon for people with disabilities in China.

AUTHOR CONTRIBUTIONS

SL, XZ, and LZ conceived and writing frame design. SL, ZM, WX, CZ, YC, and WG wrote the paper. SL, ZM, WX, CZ, YC, WG, XZ, and LZ revised the manuscript.

FUNDING

This work was supported by the National Social Science Fund of China (12BSH055) and the K. C. Wong Magna Fund at Ningbo University. This work was also supported by grants from the National Key Basic Research Program (2016YFA0400900 and 2018YFC0831101), the National Natural Science Foundation of China (31471071, 31771221, 61773360, and 71874170), and the Fundamental Research Funds for the Central Universities of China.

ACKNOWLEDGMENTS

A portion of the numerical calculations in this study were performed with the supercomputing system at the Supercomputing Centre of University of Science and Technology of China.

REFERENCES

- Axelrod, R., and Hamilton, W. D. (1997). The evolution of cooperation. *Sci. Am.* 273, 347–360. doi: 10.1126/science.7466396
- Cai, W., Wu, S., and Kou, Y. (2016). Power and pro-social behavior: how and why power affects pro-social behavior. *Adv. Psychol. Sci.* 24, 120–131. doi: 10.3724/SP.J.1042.2016.00120
- Caprara, G. V., Alessandri, G., and Eisenberg, N. (2012). Pro-sociality: the contribution of traits, values, and self-efficacy beliefs. *J. Pers. Soc. Psychol.* 102, 1289–1303. doi: 10.1037/a0025626
- Chen, C. H., and Shu, B. C. (2012). The process of perceiving stigmatization: perspectives from Taiwanese young people with intellectual disability. *J. Appl. Res. Intellect. Disabil.* 25, 240–251. doi: 10.1111/j.1468-3148.2011.00661.x
- de Dreu, C. K., Greer, L. L., Handgraaf, M. J., Shalvi, S., Van Kleef, G. A., Baas, M., et al. (2010). The neuropeptide oxytocin regulates parochial altruism in intergroup conflict among humans. *Science* 328, 1408–1411. doi: 10.1126/science.1189047
- DeCelles, K. A., Derue, D. S., Margolis, J. D., and Ceranic, T. L. (2012). Does power corrupt or enable? When and why power facilitates self-interested behavior. *J. Appl. Psychol.* 97, 681–689. doi: 10.1037/a0026811
- Deleire, T. (2000). The wage and employment effects of the Americans with disabilities act. *J. Hum. Resour.* 35, 693–715. doi: 10.2307/146368

- Gintis, H., Bowles, S., Boyd, R., and Fehr, E. (2003). Explaining altruistic behavior in humans. *Evol. Hum. Behav.* 24, 153–172. doi: 10.2307/146368
- Gwinn, J. D., Judd, C. M., and Park, B. (2013). Less power = less human? Effects of power differentials on dehumanization. *J. Exp. Soc. Psychol.* 49, 464–470. doi: 10.1016/j.jesp.2013.01.005
- Han, R., Li, S., and Shi, J. N. (2009). The territorial prior-residence effect and children's behavior in social dilemmas. *Environ. Behav.* 41, 644–657. doi: 10.1177/0013916508318840
- Handgraaf, M. J., Van, D. E., Vermunt, R. C., Wilke, H. A., and de Dreu, C. K. (2008). Less power or powerless? Egocentric empathy gaps and the irony of having little versus no power in social decision making. *J. Pers. Soc. Psychol.* 95, 1136–1149. doi: 10.1037/0022-3514.95.5.1136
- Hoffman, E., McCabe, K., Shachat, K., and Smith, V. (1994). Preferences, property rights, and anonymity in bargaining games. *Games Econ. Behav.* 7, 346–380. doi: 10.1006/game.1994.1056
- Ibanez, L., Moureau, N., and Roussel, S. (2017). How do incidental emotions impact pro-environmental behavior? Evidence from the dictator game. *J. Behav. Exp. Econ.* 66, 150–155. doi: 10.1016/j.socec.2016.04.003
- Inesi, M. E., Gruenfeld, D. H., and Galinsky, A. D. (2012). How power corrupts relationships: cynical attributions for others' generous acts. *J. Exp. Soc. Psychol.* 48, 795–803. doi: 10.1016/j.jesp.2012.01.008
- Jones, D. (2018). Kin selection and ethnic group selection. *Evol. Hum. Behav.* 39, 9–18. doi: 10.1016/j.evolhumbehav.2017.08.004
- Kraus, M. W., Chen, S., and Keltner, D. (2011). The power to be me: power elevates self-concept consistency and authenticity. *J. Exp. Soc. Psychol.* 47, 974–980. doi: 10.1016/j.jesp.2011.03.017
- Lammers, J., Galinsky, A. D., Gordijn, E. H., and Otten, S. (2012). Power increases social distance. *Soc. Psychol. Pers. Sci.* 3, 282–290. doi: 10.1177/1948550611418679
- Lammers, J., and Stapel, D. A. (2011). Power increases dehumanization. *Group Process. Intergroup Relat.* 14, 113–126. doi: 10.1177/1368430210370042
- Liu, S., Xie, W. L., Han, S. F., Mou, Z. C., Zhang, X. C., and Zhang, L. (2018). Social interaction patterns of the disabled people in asymmetric social dilemmas. *Front. Psychol.* 9:1683. doi: 10.3389/fpsyg.2018.01683
- Magee, J. C., and Smith, P. K. (2013). The social distance theory of power. *Pers. Soc. Psychol. Rev.* 17, 158–186. doi: 10.1177/1088868312472732
- Masuda, N. (2012). In-group favoritism and intergroup cooperation under indirect reciprocity based on group reputation. *J. Theor. Biol.* 311, 8–18. doi: 10.1016/j.jtbi.2012.07.002
- Miklánec, T. (2018). Information asymmetry and exposure effects in dictator games. *J. Behav. Exp. Econ.* 77, 29–39. doi: 10.1016/j.socec.2018.09.010
- Mithen, J., Aitken, Z., Ziersch, A., and Kavanagh, A. M. (2015). Inequalities in social capital and health between people with and without disabilities. *Soc. Sci. Med.* 126, 26–35. doi: 10.1016/j.socscimed.2014.12.009
- Moore, M. E., Konrad, A. M., Yang, Y., Ng, E. S. W., and Doherty, A. J. (2011). The vocational well-being of workers with childhood onset of disability: life satisfaction and perceived workplace discrimination. *J. Vocat. Behav.* 79, 681–698. doi: 10.1016/j.jvb.2011.03.019
- Mou, Z. C., Liu, S., Zhang, Y., Xu, Q., and Zhang, L. (2017). The attentional and interpretational bias of the disabled with rejection sensitivity towards different social cues. *Chin. J. Appl. Psychol.* 23, 13–22.
- Rao, L. L., Han, R., Ren, X. P., Bai, X. W., Zheng, R., Liu, H., et al. (2011). Disadvantage and prosocial behavior: the effects of the Wenchuan earthquake. *Evol. Hum. Behav.* 32, 63–69. doi: 10.1016/j.evolhumbehav.2010.07.002
- Santuzzi, A. M. (2011). Anticipating evaluative social interactions involving persons with disabilities. *Rehabil. Psychol.* 56, 231–242. doi: 10.1037/a0024444
- Schier, U. K., Ockenfels, A., and Hofmann, W. (2016). Moral values and increasing stakes in a dictator game. *J. Econ. Psychol.* 56, 107–115. doi: 10.1016/j.joep.2016.06.004
- Thielmann, I., and Hilbig, B. E. (2018). Is it all about the money? A re-analysis of the link between Honesty-Humility and Dictator Game giving. *J. Res. Pers.* 76, 1–5. doi: 10.1016/j.jrp.2018.07.002
- Thunström, L., Cherry, T. L., McEvoy, D. M., and Shogren, J. F. (2016). Endogenous context in a dictator game. *J. Behav. Exp. Econ.* 65, 117–120. doi: 10.1016/j.socec.2016.08.001
- Tricomi, E., Rangel, A., Camerer, C. F., and O'Doherty, J. P. (2010). Neural evidence for inequality-averse social preferences. *Nature* 463, 1089–1091. doi: 10.1038/nature08785
- Trivers, R. L. (1971). The evolution of reciprocal altruism. *Q. Rev. Biol.* 46, 35–57. doi: 10.1086/406755
- West, S. A., Griffin, A. S., and Gardner, A. (2007). Social semantics: altruism, cooperation, mutualism, strong reciprocity and group selection. *J. Evol. Biol.* 20, 415–432. doi: 10.1111/j.1420-9101.2006.01258.x
- Williams, M. J. (2014). Serving the self from the seat of power: goals and threats predict leaders' self-interested behavior. *J. Manag.* 40, 1365–1395. doi: 10.1177/0149206314525203
- Xie, W. L., Wang, Z. J., Wang, F., and Zhang, L. (2013). A review on cooperation from the point of view of evolutionary psychology. *Adv. Psychol. Sci.* 21, 2057–2063. doi: 10.3724/SP.J.1042.2013.02057
- Zhang, L., Li, W. T., Liu, B. B., and Xie, W. L. (2014). Self-esteem as mediator and moderator of the relationship between stigma perception and social alienation of Chinese adults with disability. *Disabil. Health J.* 7, 119–123. doi: 10.1016/j.dhjo.2013.07.004
- Zhang, L., Liu, S., Xie, W. L., and Li, W. T. (2015). Attentional bias of individuals in adulthood with disabilities for different types of social cues. *Psychol. Dev. Educ.* 31, 676–684.

Conflict of Interest Statement: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright © 2019 Liu, Mou, Xie, Zhang, Chen, Guo, Zhang and Zhang. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.



Sociology, Social Class, Health Inequalities, and the Avoidance of “Classism”

Graham Scambler^{1,2*}

¹ Department of Sociology, University of Surrey, Guildford, United Kingdom, ² Institute of Population Health, University College London, London, United Kingdom

Keywords: social class, health inequalities, classism, class/command dynamic, institutional taming, foresight and action sociology

GENDER, ETHNICITY AND CLASS (AND ITS PROXIES)

There is no doubting the causal impact of gender and race or ethnicity on health and health care. They are clearly implicated in the production and reproduction of health inequalities, and they no less clearly antedate the class-based stratification system of capitalism through all its phases. But, I contend, it is class that is of stand-out importance for a sociology of health inequalities. Sayer (2015, p. 170) explains why this is:

“While gender and race inequalities are produced primarily by sexism and racism, class differences would persist even if the upper and middle classes were nice and respectful to the working class. The unequal distribution of property and the unequal division of labor would be largely unaffected. Class prejudice is common, but it’s more a ‘response to’ economic inequalities than a cause of them. By contrast, the enduring of sexism and racism would have a major impact on gender and race relations.”

He continues:

“Neoliberals – New Labor for example – can appear quite progressive about gender, race, sexuality, disability and condemn those who discriminate against people on these grounds. Unsurprisingly, the elephant in the room is economic inequalities or class difference. Though it never admits it, neoliberalism is a political-economic movement that seeks to legitimize widening economic inequalities and defend rentier interests above all others. Rentiers can live off others regardless of their gender, race, sexuality and so on.”

Class has lost a degree of its salience for identity-formation in the individualized, “liquid” or relativized culture of contemporary financial capitalism, *but it has lost none of its structural force*. If it has a reduced impact “subjectively”, it has, I contend, enhanced its impact “objectively”.

With regard to health inequalities, the measures of class that have been deployed have been parsimonious proxies for the concepts familiar from classical sociology: Marx has all but disappeared and Weber has been tailored primarily to the study of trends in social mobility via Goldthorpe and his colleagues. I draw four conclusions from this. First, it seems apparent enough that the proxies or class routinely used to uncover, track and account for health inequalities, namely, the Registrar General’s (RG) Classification of Occupations and the National Statistics Socio-Economic Classification (NS-SEC), substitute, respectively, occupational prestige and job characteristics for class as a social structure or relation (Bartley, 2017). The findings from this considerable array of investigations consistently reveal that the higher the likes of the prestige/rewards/security/authority/autonomy of people’s jobs the better their chances of sustained good health and longevity. Marmot Review (2010) has even claimed, more controversially, that

OPEN ACCESS

Edited by:

Hannah Bradby,
Uppsala University, Sweden

Reviewed by:

Tomi Ensio Mäki-Opas,
University of Eastern Finland, Finland
Saffron Karlsen,
University of Bristol, United Kingdom

*Correspondence:

Graham Scambler
grahamscambler@hotmail.com

Specialty section:

This article was submitted to
Medical Sociology,
a section of the journal
Frontiers in Sociology

Received: 24 January 2019

Accepted: 21 June 2019

Published: 05 July 2019

Citation:

Scambler G (2019) Sociology, Social Class, Health Inequalities, and the Avoidance of “Classism”.
Front. Sociol. 4:56.
doi: 10.3389/fsoc.2019.00056

there is a discernible “social gradient” such that as employment grades increase, so too do the people’s health prospects.

Second, it can nevertheless be inferred (in critical realist terminology, “retroduced”) from the findings of studies using these proxies that class as a pivotal and enduring structure or relation *must exist* for studies using the RG or NS-SEC classifications to deliver the findings they have long done and continue to do.

Third, to resort to class proxies like the RG and NS-SEC is to exclude the empirical consideration of class as a social structure or relation. More specifically—a hugely significant point in my view—it “absents” any possibility of investigating the putative causal salience of what has conventionally been seen as the “ruling class”, namely, that fraction of the top 1% that wields enormous and overriding social and political power (Scambler and Scambler, 2015). The 1% is swallowed alive and disappears from view and analysis in the RG and NS-SEC. As Coburn (2009, p. 44) has emphasized, the authors of extant investigations “seldom go far enough up the causal chain to confront the class forces and class struggles that are ultimately determinant.” I think this is an understatement and I shall focus later on the causally pivotal role of those *capital monopolists* comprising a tiny fraction of what Clement and Myles (1997) called the “capitalist executive” in the production and reproduction of health inequalities (see Scambler, 2018).

Fourth, I fully acknowledge that there are horses for courses. In other words, the NS-SEC, scrupulously derived from Weberian theory by Goldthorpe, is helpful, apt and functional for the study of changes in social mobility over time (see the excellent Budoki and Goldthorpe, 2019). But what it gives to sociology with one hand it takes away with the other.

THE CLASS/COMMAND DYNAMIC

I have maintained elsewhere, first, that objective class relations are more not less potent in post-1970s financial capitalism than in the postwar welfare-state capitalism that preceded it; and second, that the capitalist executive in general, and the fragment of hard-core capitalist monopolists—those few major shareholders, rentiers, and CEOs—“players”—in our newly exacerbated global or transnational capitalist arena—in particular, have bought more policies from the state’s power elite than was possible hitherto. The historian Landes (1998) has written that those with wealth have always bought those with power; and I maintain that they get more for their money in financial capitalism than they did in the postwar era. The rationale for capitalizing—an apt word—on this newfound purchasing power? The hard-core capital monopolists are, in Habermasian terms, totally, ineluctably “strategic”: they privilege accumulating capital to their personal advantage *above all else*. They are, as I have spelled out elsewhere, “focused autonomous reflexives” (Scambler, 2012). The bottom line, empirically, is that they have been able to purchase a greater range of policies favoring their own *personal and familial* accumulation of capital than hitherto, hence my reference to a novel class/command dynamic. This is critical not only for the deepening of wealth, income and—in their wake—health

inequalities, but also for the ongoing dismantling of our NHS. Predictably, women, the dis-abled, the long-term sick and vulnerable, and those comprising class-disadvantaged segments of ethnic/racial minorities have suffered most.

This requires some elaboration. The main political plank of neoliberal ideology in the UK has been “austerity”. This discourse has provided cover for a sustained attack on working-class interests and well-being that has significantly enriched the capitalist executive in general and the—now super-rich—capital monopolists in particular. Other principal beneficiaries include those working for and with the capitalist executive and the power elite of the state. I have elsewhere defined the UK’s “governing oligarchy” (though some, like Sayer, prefer the term “plutocracy”) as consisting of the hard-core of the transnational capitalist executive plus the nation-state’s power elite (Scambler, 2018).

Working-class health and longevity has been measurably damaged by the strangulation of those capital or “asset flows” known to be conducive to good health. These can be summarized as follows:

- **Biological (or body) assets** can be affected by class relations even prior to birth. Low-income families, for example, are more likely to produce babies of low birthweight; and low birthweight babies carry an increased risk of chronic disease in childhood, possibly in part through biological programming;
- **Psychological assets** yield a generalized capacity to cope, extending to what is increasingly conceptualized as “resilience.” In many ways the “vulnerability factors” that Brown and Harris (1978) found reduced working-class women’s capacity to cope with life-events salient for clinical depression are class-induced interruptions to the flow of psychological assets;
- **Social assets** have come to assume pride of place in many accounts of health inequalities and feature strongly in the work of Marmot and Wilkinson. The terms social assets or “social capital” refer to aspects of social integration, networks, and support. The political use to which social capital is sometimes put should not lead to its neglect;
- **Cultural assets** or “cultural capital” are initially generated through processes of primary socialization and go on to encompass formal educational opportunities and attainment. Class-related early arrests to the flow of cultural assets can have long-term ramifications for employment, income levels, and therefore health;
- **Spatial assets** have been shown to be significant for health by area-based studies. These have documented that areas of high mortality tend to be areas with high rates of net out-migration; and it tends to be the better qualified and more affluent who exercise the option to move;
- **Symbolic assets**, representing the variable distribution of social status or “honor”, are known to impact on health via people’s (sense of) social position, especially relative to those others who comprise their reference groups;
- **Material assets** refer to “relative deprivation” due to impoverishment and meager standard of living. The relevance of material assets for health and longevity has long been stressed, although the mechanisms linking low income with health remain much debated.

The process is as follows: concomitant with the enhanced class-driven character of government policy are a series of shifts of direction, such as part-time, transitory and insecure employment, extending to zero hours contracts; deteriorating workers' rights and conditions; the sidelining of trade unions; the ending of final salary pension schemes and the increase in the age of retirement; benefit cuts, culminating in the rolling out of Universal Credit; the defunding of local government services and, to an extreme degree, social care; NHS cuts and privatization; and so on.

The net effect of this targeted action against the welfare state and the working class, carried out under the aegis of austerity and a political rather than economic choice, is to severely reduce the flows of health-related assets for many people. Although there can be compensation between asset flows—a strong flow of social assets can for example mitigate the negative effects of a reduction in the flow of material assets following a job loss—the research suggests that reductions tend to cluster across flows, and also that reduced flows at critical junctures of the lifecourse, like childhood, can have severe deleterious and long-term effects. So there is an empirically traceable causal chain stretching from the boardroom decisions of big bosses and shareholders through elite career-oriented politicians to the bodies and minds of the most disadvantaged and vulnerable citizenry.

IS SOCIOLOGY BEING “TAMED?”

I have built on Burawoy's (2005) explication of “four sociologies” by appending a further two. The resulting six sociologies are outlined here, together with ideal types of theory and of practitioner:

1. Professional sociology—scholar—cumulative theory
2. Policy sociology—reformer—utilitarian theory
3. Critical sociology—radical—meta-theory
4. Public sociology—democrat—communicative theory
5. Foresight sociology b- visionary—speculative theory
6. Action sociology—activist—strategic theory

It is in my view the responsibility of the community of sociologists as a whole to ensure that all six bases are covered, not that every sociologist should attempt all six. I will focus here on the import of foresight and action sociology for any consideration of health inequalities. Foresight sociology develops speculative theory (i.e., anticipates “alternative futures,” whether societal or institution-based) and is practiced by visionaries. Action sociology deploys strategic theory (i.e., is oriented to accomplishing change) and is conducted by activists. In the most general terms, sociologists as visionaries might focus on concrete ways in which what are commonly called “social determinants” of health and disease and of their unequal distributions might be so amended, rejigged, or subverted as to ensure greater equality of opportunity and outcome. Sociologists as activists would represent theories and research emanating from the

scholars of professional sociology and the reformists of policy sociology in civil society and the public sphere of the lifeworld, *and go on to engage with and contest the dirty politics of their neglect and ideological dismissal* often conducted through the medium of right-wing think tanks unwilling to identify their sponsors.

To fail to convert professional, policy and critical sociology—via public sociology—into foresight *and* action sociology is to my mind to acquiesce, qua community, in the taming of the discipline. In my *Sociology, Health, and the Fractured Society* I illustrate further ways in which sociology can, and in my view is, being tamed (Scambler, 2018). I also offer sets of interrogations of population health and health inequalities pertinent to each of my six sociologies. Toward the end of this short piece I proffer another quartet of themes I think it interesting and important to pursue.

- With regard to sociology's putative taming, how does the availability of funding for health inequalities research break down by issue and focus?
- Precisely how, and how convincingly, does research into “class and health” via proxy measurements of class like the RG and NS-SEC warrant retroductive (or more rarely in qualitative research abductive) inference to the “reality” of class as a structure or relation impacting as a pivotal causal mechanism for sociological explanations of health inequalities?
- Does the extant body of (largely positivistic) research purporting to address the linkage between class and health—but in fact “absenting” class as a structure/relation—in effect function as a “protective belt” around financial capitalism's justificatory neoliberal ideology by absorbing or deflecting attention from what *should be* sociology's true and enduring point of departure toward subsidiary concerns?
- How, figuration by figuration, or context by context, does class as defined in this short paper fare as a causal mechanism salient for health inequalities *in comparison with those of gender and ethnicity/race*? While I make a case here for class as prepotent in the figuration/context of a British nation state precariously lodged in a capitalist world system, its causal power, as intersectionalists rightly insist, is obviously far from ubiquitous.

I was a fortunate babyboomer with a degree of latitude to negotiate “free time” to ask personal and inconvenient—that is, genuinely sociological—questions. Equivalent negotiations have indubitably grown tougher. *But:* (a) it actually wasn't quite as easy for us babyboomers as is often somewhat ritualistically assumed, and (b) it remains crucial that *we*, the sociological community, as a whole, *and as individual members of that community*, hold our nerve and ground (Scambler, 1996).

AUTHOR CONTRIBUTIONS

The author confirms being the sole contributor of this work and has approved it for publication.

REFERENCES

- Bartley, M. (2017). *Health Inequality: An Introduction to Theories, Concepts and Methods, 2nd Edn.* Cambridge: Polity Press.
- Brown, G., and Harris, T. (1978). *Social Origins of Depression.* London: Tavistock.
- Budoki, E., and Goldthorpe, J. (2019). *Social Mobility and Education in Britain.* Cambridge: Cambridge University Press.
- Burawoy, M. (2005). For public sociology. *Am. Sociol. Rev.* 70, 4–28. doi: 10.1177/000312240507000102
- Clement, W., and Myles, J. (1997). *Relations of Ruling: Class and Gender in Post-Industrial Societies.* Toronto: McGill Queen's University Press.
- Coburn, D. (2009). "Inequality and health," in *Morbid Symptoms: Health Under Capitalism*, eds L. Panitch and C. Leys (Pontypool: Merlin Press), 39–58.
- Landes, D. (1998). *Wealth and Poverty of Nations.* London: Little, Brown & Co.
- Marmot Review (2010). *Fair Society, Healthy Lives: Strategic Review of Health Inequalities in England Post-2010.* London: Department of Health.
- Sayer, A. (2015). *Why We Can't Afford the Rich.* Bristol: Policy Press.
- Scambler, G. (1996). The 'project of modernity' and the parameters for a critical sociology: an argument with illustrations from medical sociology. *Sociology* 30, 567–581.
- Scambler, G. (2012). "Archer, morphogenesis and the role of agency in the sociology of health inequalities," in *Contemporary Theorists for Medical Sociology*, ed G. Scambler (London: Routledge), 131–149.
- Scambler, G. (2018). *Sociology, Health and the Fractured Society: a Critical Realist Account.* London: Routledge.
- Scambler, G., and Scambler, S. (2015). Theorizing health inequalities: the untapped potential of dialectical critical realism. *Soc. Theory Health* 13, 340–354. doi: 10.1057/sth.2015.14

Conflict of Interest Statement: The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright © 2019 Scambler. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.



Invisibility of Racism in the Global Neoliberal Era: Implications for Researching Racism in Healthcare

Beth Maina Ahlberg^{1,2*}, Sarah Hamed¹, Suruchi Thapar-Björkert³ and Hannah Bradby¹

¹ Department of Sociology, Uppsala University, Uppsala, Sweden, ² Skaraborg Institute for Research and Development, Skövde, Sweden, ³ Department of Government, Uppsala University, Uppsala, Sweden

OPEN ACCESS

Edited by:

Jenny Douglas,
The Open University, United Kingdom

Reviewed by:

Saffron Karlsen,
University of Bristol, United Kingdom
Rachel Matthews,
National Institute for Health Research
(NIHR), United Kingdom

*Correspondence:

Beth Maina Ahlberg
beth.ahlberg@vgregion.se

Specialty section:

This article was submitted to
Medical Sociology,
a section of the journal
Frontiers in Sociology

Received: 18 March 2019

Accepted: 24 July 2019

Published: 14 August 2019

Citation:

Ahlberg BM, Hamed S,
Thapar-Björkert S and Bradby H
(2019) Invisibility of Racism in the
Global Neoliberal Era: Implications for
Researching Racism in Healthcare.
Front. Sociol. 4:61.
doi: 10.3389/fsoc.2019.00061

This paper describes the difficulties of researching racism in healthcare contexts as part of the wider issue of neoliberal reforms in welfare states in the age of global migration. In trying to understand the contradiction of a phenomenon that is historical and strongly felt by individuals and yet widely denied by both institutions and individuals, we consider the current political and socioeconomic context of healthcare provision. Despite decades of legislation against racism, its presence persists in healthcare settings, but data on these experiences is rarely gathered in Europe. National systems of healthcare provision have been subject to neoliberal reforms, where among others, cheaper forms of labor are sought to reduce the cost of producing healthcare, while the availability of services is rationed to contain demand. The restriction both on provision of and access to welfare, including healthcare, is unpopular among national populations. However, the explanations for restricted access to healthcare are assumed to be located outside the national context with immigrants being blamed. Even as migrants are used as a source of cheap labor in healthcare and other welfare sectors, the arrival of immigrants has been held responsible for restricted access to healthcare and welfare in general. One implication of (im)migration being blamed for healthcare restrictions, while racism is held to be a problem of the past, is the silencing of experiences of racism, which has dire consequences for ethnic minority populations. The implications of racism as a form of inequality within healthcare and the circumstances of researching racism in healthcare and its implication for the sociology of health in Sweden are described.

Keywords: racism, neoliberalism, globalization, migration, healthcare, sociology, inequalities, collaborative research

INTRODUCTION

Racism and Health

Racism is a complex social phenomenon to study, given the variations in historical and geographical contexts as well as non-availability of data especially in the European context which is the main focus in this review. We discuss in this paper the modalities of racism entangled with the enslavement of the African people and colonialism in the context of capitalist development and European modernization. Furthermore, since the focus of the paper is healthcare as part of welfare provision, we follow Paradies et al. (2015) who view racism as an organized system within societies that causes avoidable and unfair inequalities in power, resources, capacities, and opportunities across racial or ethnic groups, which manifests through beliefs, stereotypes,

prejudices, or discrimination. Racism can moreover, be internalized, through incorporating racist attitudes, beliefs, and ideologies in one's worldview; this can be interpersonal through interaction between individuals or systemic for example, through lack of control of and access to labor, material, and symbolic resources within a society. This implies that racial inequalities in healthcare can be understood as lack of access to socioeconomic opportunities and resources, within contexts of negative images, stereotypes, prejudice, and discrimination against certain minority groups. It is in this, complex context that racial health disparities described here need to be understood.

Priest and Williams (2018) for example, describe how pervasive global health inequalities exist among what they describe as "stigmatized and disenfranchised ethnic groups (p. 1)" in a wide variety of health conditions including: "earlier onset of illness, increased severity, and progression of disease, higher levels of comorbidity, mortality rates, and poor access to healthcare (p. 1)." Similarly, Arora et al. (2001), show that compared to white populations in the UK, black and minority ethnic populations carry a heavier burden of poor health, premature death and long-term chronic ill health, while refugees, and asylum seekers constitute a high-risk group for mental ill health. Research in Canada suggests that some diseases, including cardiovascular disease, certain cancers, diabetes, and HIV/AIDS, have specific racial/ethnic profiles that disadvantage minority racialized groups (Nestel, 2012). In Sweden, according to Alexander (2009), people who are not ethnically Swedish are more likely to suffer from poor mental and physical health. Hjern (2012) reports that immigrants of non-European background are three to four times more likely than Swedish people to suffer from poor or very poor health. Essén et al. (2000) observe that women with a foreign background, especially those from sub-Saharan Africa, have a higher risk of perinatal mortality than native Swedish women. These perinatal mortality differences could not be explained by existing risk factors and the authors suggest that more intense surveillance should be given to women and newborns from sub-Saharan Africa as a way of reducing perinatal mortality. Racism, as stressed by Priest and Williams and conceptualized by Paradies et al. (2015) is a critical determinant and fundamental cause of inequalities in health, as underlined by Mulinari and Neergaard (2017) in the case of Sweden. Yet, in spite of such disparities, racism, as is becoming clear from a newly initiated research in Sweden by the authors of this review, is difficult to discuss in healthcare encounters (Bradby et al., 2019), largely because it manifests in very subtle ways.

The aim of this review article is therefore to investigate how racism has been rendered invisible in the context of global neoliberalism the political doctrine concerned with how to manage capitalism as an economic system that according to Nkansah-Amankra et al. (2013) shapes social policy, including public health. The role of global neoliberalism is however understood as encompassing other historical events for example, the end of the second world war, the human rights movement in USA and the liberation or anti-colonial movements. Contextualizing racism in healthcare within this broad global neoliberalism will, we argue, enable us to understand, not just how racism is rendered invisible but more significantly, also

the marginalization, vulnerabilities and suffering created in the process. This is particularly important because the inability to identify the historical, social, economic, and ideological structuring of racism within social institutions such as healthcare today, seem to result in attributing responsibility for the effects of racism to those individuals and groups who may also be its casualties (Mueller, 2017; Waldman, 2018).

In the section below, we discuss how racism has become unspeakable although nonetheless experienced. We first explore the historical genealogies of racism, after which we examine how neoliberalism has shaped and contributed to the silencing of racism. We conclude the paper by briefly reflecting on the role of academia and advocating for the application of participatory or collaborative research methodologies in order to help create spaces for promoting open discussion of racism in healthcare settings.

HISTORICAL GENEALOGIES AND THE SHAPING OF RACISM

As a phenomenon entangled with the history of European modernization, racism arguably goes back to the renaissance. According to Earle and Lowe (2005), Europe was already receiving black Africans regularly and in significant numbers ever since the mid fifteenth century, when they were employed as entertainers, dancers, and other categories of workers, but also as slaves, in the cosmopolitan courts. Having black slaves was at the time a sign of social prestige and distinction in these courts. The presence of black people moreover played a necessary counter-image in the construction of European whiteness and civilization (Earle and Lowe, 2005). While being an essential part of European modernization, racism, has in different historical periods assumed different forms including: biblical argument grounded in perceived Christian superiority, biological argument based on science and finally cultural argument (Blaut, 1992; Rogers and Moira, 2005; Cole, 2018).

In its most conspicuous and violent form, racism was manifested in the European capitalist development when large numbers of Africans were shipped to the Americas as slave labor in mines and in sugar, tobacco, and cotton plantations. During this time, public lynching of slaves by slave owners was commonplace (Young, 2005). Direct colonization that entailed, for example, the scramble for Africa during the Berlin Conference in 1884 (Nilsson, 2013), appropriating land and forcibly moving indigenous people to reserves, promoting exploitation, segregation and exclusion of peoples and groups considered inferior or uncivilized then followed. Colonial interventions were justified through a discourse of civilizing mission (Rodney, 1966; Eltis and Richardson, 1997; Baptist, 2014; Salem and Thompson, 2016).

After these conspicuously violent historical moments, but more specifically after the holocaust and genocide during the Second World War, the civil rights movement in the USA, and the liberation or anti-colonial movements in the colonies, racism has seemingly, been forced into obscurity and invisibility (Lentin, 2008).

Following the Second World War and as a response to the Holocaust, UNESCO issued statements in 1951 and 1952, concluding that there are no innate biological differences between different human groups. Race as a biological category was abandoned in science, at least politically (Shapiro, 1952). The focus on race and consequently racism as based on a biological notion meant that racism was viewed as originating in science rather than as a political idea. Therefore, when race was deemed unscientific, racism was consequently seen as done away with: Europe was regarded by some to have gone back to its original nature—as a non-racist society.

As argued by Goldberg (2009), the Holocaust became the “reference point of race” and Europe’s colonial history was brushed away and seen as distinct from European identity and modernity. Mulinari and Neergaard (2017) too argue that the focus on the holocaust explicitly obliterates European colonial history, with annihilation as an extreme form of exclusionary racism, whereas exploitative racism still needs black workers. In addition, the shift of the discourse to cultural forms of racism in many European countries has, as argued by Salem and Thompson (2016), managed to obliterate the biological notion of race from the public sphere therefore making it difficult to bring discussion of racism into public arena.

In Sweden, beside the exceptionalism that constructs Sweden as gender equal, anti-racist, and detached from a colonial past, thus rendering race, racism and racializing processes hard to conceptualize, the removal of the term “race” from Swedish law was perhaps the height of racial color-blindness. In 1973, the Swedish government argued to the UN that it was unnecessary to have laws against racism in Sweden as the majority of Swedish people were regarded as anti-racist (Hübinette and Lundström, 2014). Later in 2014, the Integration Minister argued that this removal of race would help Sweden steer away from xenophobia (Carlson, 2011; Rundquist, 2014; Eliassi, 2017; Mulinari and Neergaard, 2017).

Thus, the neoliberal restructuring and silencing of racism has resulted in an ideology of color-blindness which makes racism even more invisible because it removes any suggestion of white supremacy or white guilt from personal thought and public discussion while legitimizing the existing social, political, and economic arrangements which privilege whites. Bonilla-Silva (2014) describes color-blind racism as the ideological cover for a covert and institutionalized system for maintenance of white privilege without identifying those subjected to or those rewarded by that system. At the same time this ideology insinuates that class and culture rather than institutional racism, are responsible for social inequality (Gallagher, 2003). Such a perspective permits white people to define themselves as racially tolerant and claims to adhere to a belief system that does not judge individuals by the “color of their skin.” To others, color-blindness is culturally grounded in an epistemology of ignorance or a process of knowing designed to produce ignorance around white privilege, culpability, and structural white supremacy (Robbins, 2014; Mueller, 2017). From this color-blindness perspective we can understand the difficulties expressed by white Swedish social workers within a study of conceptions of immigrant integration (Eliassi, 2017) in conceptualizing racism in forms other than

the way it was enacted in Apartheid South Africa. The social workers identified the cultural identity of immigrants rather than racism as what mainly complicates those immigrants’ ability to integrate into the Swedish Society. In the context of color-blind ideology, the focus on cultural and ethnic backgrounds tend to obstruct identification of structural inequalities embedded in society (Mueller, 2017). Since a good deal of research has focused on the rise of neoliberal capitalism (Davis, 2007) which is often seen as signaling the end of racism or instituting a post-racial society (Giroux, 2003) or what Goldberg (2009) defines as evaporating racism, we aim in the next section to highlight the connection between neoliberalism and the silencing of racism.

NEOLIBERALISM AND RACISM

Neoliberalism or the doctrine of the free market and related political and individual freedom, was perhaps best articulated by, the Nobel Prize winner economist Milton Friedman (1962) who strongly opposed the type of liberal democracy that developed toward the middle of the nineteenth century, with its emphasis on equality and social welfare which he saw as state intervention and paternalism. What is important in the context of this review paper is however the way Robbins (2014) depicts how contemporary racist practices and structures of inequality are coupled with the authority of neoliberalism, especially in the way that neoliberalism has emptied the social and privatized its expressions. Perhaps most important here is especially the added impact of economic and labor restructuring on different classes within the complex context of color-blindness. The section below examines neoliberalism and related globalization processes, to allow for a better understanding of the structural transformations that may have further muted or silenced racism and the vulnerabilities arising.

Global Neoliberalism, Decay of the State, and Emerging Vulnerabilities

The focus is to understand how the restructuring through global neoliberalism has, as argued by Dominelli (1999), redefined the welfare state and what implications this has had on labor, welfare, caring, and well-being. Dasgupta (2018) argues that the nation state is declining, and has lost influence over the human condition while national political authority has similarly declined.

The OECD reports (2011, 2015) highlight how even in countries such as Germany, Denmark, and Sweden where the value of egalitarianism has been highly acclaimed, income inequality by class has increased, from the 1980s to today. Meanwhile according to Bergmark (2008), Lundberg and Waldenström (2016), and Therborn (2018), Sweden has the most uneven pattern of wealth distribution in Western Europe. In 2002, for example, the top one percent owned 18% of all household wealth, but by 2017, this had risen to 42% (Therborn, 2018).

One major aspect of the decay of the state is the paradox of loss of control over capital flow while reproduction of racial categories and racialization are ongoing. Even though race and racism

may, in the context of color-blindness, be denied, or ignored migrants (a readily racialized category) are nonetheless blamed for the negative impact of these structural transformations on the general population. The loss of control over capital implies there is less possibility for reinvestment or redistribution of wealth in the spaces where that wealth has been produced and this contributes to growing unemployment, poverty, and inequalities. All this is a sign of the break from the previous state of government mastery over national destiny in providing healthcare, education, and welfare. In addition to the decay of the nation state as a result of global neoliberalism, the global south, and particularly the African continent, even in the aftermath of colonialism, remains the supplier of raw material such that profits accumulate for big corporations in the global north (Akopari, 2001). This resource extraction is well-articulated by Hansen and Jonsson (2014a) in their historical account of European integration where from the 1920s to the 1960s, the central idea and discussion was to create, what was then called, Eurafrika. There was an understanding then that European integration could only succeed through a coordinated exploitation of Africa, which would have entailed European states combining their economic and political capacities. However, the relations between Europe and colonialism have been systematically neglected by European historians and researchers. According to Bhambra (2016), the failure to address the past colonial histories of Europe, leads to the dismissal of the present post-colonialism and multiculturalism or the ways these relationships create vulnerabilities.

The silence around past and present exploitative relations may then explain the way nationalist groups in the global north, reason around migrants being the cause of their problems for taking jobs and welfare meant for the natives (Hansen and Jonsson, 2014b; Schierup and Ålund, 2014; Bhambra, 2016; Therborn, 2018; Dahlstedt and Neergaard, 2019). This is well-articulated by Davidson and Saull (2016) who argue that:

...the revival of the far-right is suggestive of the political pathologies in particular and organic necessities of neoliberal political economy. In this context, the far-right plays two roles. On the one hand, it articulates angry resentful grievances across a range of social layers in response to the transformations, instabilities and dislocations of neoliberalism....On the other hand it is an important agent of populist insurgency that has come to provide an important democratic and popular veneer to the transformation wrought by neoliberalism.... (p. 2).

As already indicated neoliberalism is a force in the decay of the nation state and democratic welfare (Davidson and Saull, 2016). Moreover, it entails extending the doctrine of the free market to embrace every part of public and personal worlds and entails the transformation of states and governments from being providers of social welfare to promoters of markets and competition. This means, as argued by Monbiot (2017), cutting expenditure on social services including education, healthcare, and other infrastructure; reducing government regulation that can diminish private profits; selling state-owned enterprises, goods, and services to private investors; eliminating the concept

of common goods and replacing it with individual responsibility to work hard to succeed in becoming wealthy. This according to Davis (2013), results in a paradox where the poorest people have to find solutions for their health care, education, and social security and, should they fail, they are blamed as lazy.

Trepagnier (2010) articulates this point in relation to policy programs such as affirmative action in USA, aimed at assisting African-Americans and other marginalized minority groups to achieve racial parity. Affirmative action is objected to as unfair gains by blacks, at the expense of whites, which goes against the neoliberal principle that individuals, rather than wider society, should be responsible for their own welfare. Kaika (2017) describes how the doctrine of individual responsibility has affected households around Europe. Many households live in debt, a position that has forced them to re-mortgage their homes in order to pay for increased school or university fees, healthcare or to make up for a reduction in their pensions. In the same breath, the wealthy can exonerate themselves for their hard work, even when they may have inherited their wealth or have had other advantages such as higher education.

At the same time, members of the ruling classes and political parties of both center-left and center-right are, as argued by Davidson and Saull (2016), united in accepting neoliberalism, as the only way of organizing capitalism. This has left the working classes dismantled or fragmented thus also creating a crisis for working class white identity (Robbins, 2014; Mueller, 2017). This crisis is compounded by recruitment of low paid labor including imported migrant labor now increasingly used to offset costs in the provision of welfare as described by Therborn (2018) in the case of Sweden, although the connection between neoliberalism and accentuated vulnerabilities may be unclear to those who are experiencing them. According to Davidson and Saull (2016):

Individuals may not blame capitalism as a system or on themselves as participants in the system for their personal dissatisfactions, but this does not mean that they have dispensed with the need to find someone or something to blame; but whom?...migration is therefore a central issue here.... neoliberalism contributes to the revival of far-right politics through the global, structural changes that has carried through over the last 40 years (p. 5).

While racial humiliation, exclusion, and exploitation of the global south by the global north has continued; the contrast is that the enemy was visibly present during the slave trade and colonial exploitation in the form of a white settler or an exploitative employer in the mines or plantations. Today the enemy is invisible, distributed and remote. Williamson (2017) has similarly noted the shift from an explicitly racial system of stratification for example, based on colonialism, segregation and apartheid, to a system of racial hegemony.

In line with the reasoning above, Therborn (2018) notes how in Sweden “post-industrial globalized and financialised capitalism has increased economic inequalities by weakening the position of labour, fragmenting the working class and deskilling parts of it through shifts in labour demands (p. 10).” Furthermore, the opening of new avenues for capital, through relocation to

low wage sites abroad, increases the prospects for extraction of financial rent thus swelling the inequalities. The neoliberal power structures and processes that create these vulnerabilities however remain invisible and as Davidson and Saull (2016) argue, it is part of the reason migrants are seen as the problem in the global north for taking jobs and welfare. Increasing poverty, inequalities, and unemployment arising from the structural adjustment programmes and reforms undoubtedly plays a contributory role to the pressures to migrate for better work opportunities and an associated stream of human trafficking (Butler, 2015; Williamson, 2017).

Migrants and refugees who are able to find employment in the global north are concentrated in the least favorable segments of the labor market including less qualified positions, which the natives may not want to take (Wolgast et al., 2018). With cutbacks in public and private sectors that have arisen from neoliberalist austerity labor intensification and exhaustion for the remaining work force has resulted in all sectors (Green, 2004). This process may be more intensively experienced in the healthcare sector where labor is by definition proximate and cannot be outsourced, as discussed in the following section focusing on the case of migration of nurses from the global south, and their experiences of racism.

Migrant Labor and Racism: The Case of Black African Nurse Migrants

Taking nursing as an example, the paradox arising from neoliberal reforms is work intensification and related, exhaustion, stress, and work related ill-health as articulated by Selberg (2013), concerning nurses in Sweden. The resulting shortage of nursing staff for example, in the UK but also in other EU countries, has resulted in hospitals, but also private agencies, recruiting nurses from Eastern European countries, and from the global south (Hagey et al., 2001; McElmurry et al., 2006; Batnitzky and McDowell, 2011; Kaelin, 2011; Germack et al., 2015). Apart from the ethical concerns (McElmurry et al., 2006; Bradby, 2014) about removing health personnel from poor countries, nurse migrants especially black nurses, are also placed in vulnerable, inequitable work roles, sites, shifts, and days unattractive to other nurses. What Kaelin (2011) calls “care drain,” is a double bind for those migrating to escape the structural violence of poverty, joblessness, and inequalities in source countries, only to experience continued structural violence through institutional racial discrimination and mistreatment in destination countries. According to Likupe and Archibong (2013), the black African nurses experience racially motivated discrimination from employers and colleagues but also note that:

On the one hand, Black African nurses are migrants who are recruited to a subordinate position at the bottom of the nursing hierarchy.... they are often better educated and experienced than their British colleaguesManagers seem to have legitimated nursing assistants' feeling of superiority by assigning them to supervise Black African nurses (p. 241).

Besides being denied career development opportunities, Black African nurses are, not believed, or trusted which leads to stress and poor health. Estacio and Saidy-Khan (2014) for example, report racial micro-aggressions experienced by migrant nurses in two hospitals in the midlands of England, through bullying at the hands of their nurse colleagues and racial preferences by patients as well as institutional racism that hinder further training and promotion of the migrant nurses. This led to feelings of anger, frustration and even paranoia. In spite of these experiences, migrant nurses were found to also downplay the incidents as trivial because of their vague and subtle nature. The study authors add:

Contemporary forms of racism are difficult to challenge because quite often its perpetrators are not aware that their actions can be considered as racist. New forms of racism can be problematic because these reflect deep-seated prejudices that can be difficult to overcome (Estacio and Saidy-Khan, 2014, p. 1).

The fact that both the perpetrators as well as those to whom racism is directed have difficulties recognizing racism, calls for critical reflection on how to research racism in healthcare. Being seen as a product of the past and in the context where a major impact of global neoliberalism has been silencing racism, we argue that racism in healthcare becomes difficult to discuss and is silenced (Bradby et al., 2019).

In addition, the idea that racism or the refuted racial differences could be part of the medical profession is disturbing as argued by Hoberman (2012), since racism is considered as a violation of the core ethics of a profession that is supposedly based on caring, equality, and solidarity. Healthcare providers have strong autonomy and professional identity when compared to other professionals in the welfare system, and usually see themselves as defenders of rationality. The unequal treatment of patients or of staff on racial grounds would appear to be a grave violation of medical ethics and would, for the most part, not be expressed publically and explicitly (Bradby, 2010) which makes it even more difficult to discuss. The question then is how to change this complex phenomenon that is entangled with history, neoliberalism and color-blind ideology which enables whites to ignore the degree to which race is, entangled with unequal power relations and is a force for exclusion and discrimination (Omi, 2001; Giroux, 2003). How can this situation be changed and what role might research within academic institutions play in making such changes? We go into more detail on this in the next section.

It is thus equally important to examine how academia has been involved in the study of race and racism. According to Mulinari and Neergaard (2017), except for the newly emerging critical racial theory, the study of racism and racial inequalities has been extremely marginal in Sociology in Sweden, and the Scandinavian countries in general. Given that one aim in our newly initiated research (Bradby et al., 2019) is to eventually find ways of promoting open discussion on the experience and effects of racism, it is therefore important to understand how academia and more specifically sociology has engaged with race and racism.

INNOVATING WITH PARTICIPATORY OR COLLABORATIVE APPROACHES IN RESEARCHING RACISM IN HEALTHCARE

Before discussing participatory approaches to research, we briefly reflect on the role of academia and of sociology in particular. The focus of this review has been on the difficulties of researching racism within the history of political and economic restructuring of societies, states, and governments because in the context of globalized neoliberalism racism has been silenced. Such a focus can be seen to situate the paper in post-colonial studies and literature and as argued by Go (2013a), thus also on colonial domination. However, because post-colonial studies mainly focus on the global south, it is important to have a reflective stance on the role of social sciences particularly, sociology and its sister discipline anthropology, in an attempt to understand how they have or have not engaged with the subject of race and racism. Here the ideas articulated by Bhambra (2014), are in line with Mulinari and Neergaard's (2017) suggestion that the study of racism and racial inequalities has been extremely marginal in sociology in Sweden. According to Bhambra (2014), sociology has mainly focused on modernity as a European production distinct from its colonial entanglement and states:

The sociological understanding of modernity typically rests on ideas of the modern world emerging out of the processes of economic revolution located in Europe and underpinned by the cultural changes by the Renaissance, Reformation, and Scientific revolution ... Coterminous with this argument is the idea that the rest of the world was external to these historical processes and that colonial connections and processes were insignificant to their development (p. 653).

This means that sociology has not addressed colonial relationships as integral to modernity (Lowe, 2015), with a suppression of colonial and imperial dynamics in classical sociological texts. According to Go (2013a), post-colonial theory has had more influence in the humanities, and little in sociology, although Bourdieu in his earlier work is shown to have recognized racism as a racialized system of domination and force in restructuring social relation. Elsewhere, Go (2013b) has emphasized the need for sociology to focus on the interactional constitution of social units (colonizers and colonized), processes and practices across space. Such a relational focus would mean, as argued by Hansen and Jonsson (2014a), that the discipline would need to pay more attention to the history and politics of the knowledge produced and the ways in which the practice and teaching of sociology could engender the epistemologies of empire. In contrast, anthropology, as Levi-Strauss (1966) articulates: "is the science of culture as seen from the outside (p. 126)." Lewis (1973) describes the role of the anthropologist during the colonial time in the following way:

Since the anthropologist worked amid the profound economic and political changes which accompanied the confrontation between the West and the rest of the world, he was often called upon to provide information and advice to the West in its efforts to manipulate and

control the non-western world. He provided the information either directly or indirectly and became, thereby, implicated in the process of colonization (p. 582).

Another area of concern is the declining focus on race studies in academia and when issues of race and racism are studied, the methods and reporting tend to down-play racialized inequality. Outdated questions about racial tolerance have been used to demonstrate "progress" in attitudes, while other research locates problems in minority culture rather than structural inequalities (Bonilla-Silva, 1997; Bonilla-Silva and Baiocchi, 2001). The way sociologists report their results thus tend to distort or minimize the structural features particularly in the context of the neoliberal doctrine in restructuring of the economy and the ideology of color-blindness discussed earlier. In development studies there has been very little conceptualization of race (White, 2002; Wilson, 2012), with much more focus on challenging eurocentrism (Bonilla-Silva, 1997). Kothari (2006) has wondered whether, the invisibility around "race" is because it is considered relatively unimportant in shaping inequalities, injustice and poverty. This question is critical because, at the same time as race as a category of power and social differentiation is invisible, ignored, and denied, other categories such as class, gender, and ethnicity are much discussed, not to mention the increased focus on insecurity and terrorism. Moreover, development aid is framed within a relationship between aid donors and aid recipients as part of the binary of developed/underdeveloped. Understanding the historical relationship between developed donors and undeveloped recipients implies a range of global distinctions, hierarchies, and relationships that intersect with other categories such as class, gender, and ethnicity as they become pertinent to race and racism. Just as post-colonial theory omits race, sociology too, as already pointed out, has not engaged much with the empire and colonial domination around which race and racism developed. It is in this context that Williamson's (2017) conclusion, that future research should have a critical globalization perspective, makes sense.

Given the complexities described in the sections above, it is clear there is dire need to use research methodologies that promote critical reflection and open discussion on what is going on, not just for the researchers but also for the researched. This is largely why we have proposed the use of participatory or collaborative processes in our research, to allow for engagement of a broad spectrum of stakeholders. The attempt is to create communicative spaces that would lead to dialogue and critical reflection around the issue of race and racism, which would also indicate the policy action, change and anti-racist practice. Moreover, given that the perpetrators and recipients may not recognize racism during their interaction in a healthcare setting, perhaps one other method could entail asking black minority immigrant nurses and other health professionals to keep diaries of their interaction with colleagues and patients as basis for further, collective reflection.

Creating an open discussion around racism or identifying a language that enables addressing and understanding racism within healthcare settings may, as already indicated above, require among other approaches, the use of participatory or

collaborative research processes. Such a process allows the application of the theoretical perspective of communicative action and related opening of communicative spaces, first developed by the critical theorist Habermas (1984) but later articulated by participatory action researchers (Kemmis and McTaggart, 2005; Kemmis, 2006; Godin et al., 2007; Gaya and Reason, 2009), relevant for understanding communication about complex but contested issues between unequal partners. Despite inherent ambiguities in Habermas's conceptualizations (see Honneth and Joas, 1991), communicative action allows participants, to consciously and deliberately reach intersubjective agreement, as the basis for mutual understanding about what to do in their particular practical situation, in this case how to enhance discussion on racism that informs action to reduce the damage of racism in healthcare interactions. What we are suggesting in others words is a research process that engages different stakeholders as active co-researchers in order to allow co-production of knowledge that leads to action and change.

To enhance communicative action and create space for dialogue on racism or even to frame the research problem, there is need to understand the historical events, social and economic structural processes that may have muted the collective ability to speak about racism. This review paper hopefully accomplishes that goal.

CONCLUSIONS

We have attempted to review how and why racism remains largely invisible and hugely underestimated, although it is a historical phenomenon well-ingrained in modernity and still

remains a clear category of power structuring and discrimination. In spite of being a critical determinant and fundamental cause of health inequalities, racism is difficult to discuss in healthcare encounters, which implies an urgent need for more research to explore ways of creating and promoting an open discussion contributing to constructive change in healthcare settings.

The development of global neoliberalism has played a major role in silencing and making racism invisible. Apart from the decay of the nation state, as provider of welfare, the neoliberal reforms and restructuring have led to a shift of the national wealth to the elite class. This in turn has led to the paradox of the loss of statutory or public control over capital flow, while reproduction of race categories and racialization are ongoing. The lack of explicit discussion of race and racism means that individual and organizational discrimination is hard to name or challenge, even as they are opened up for exploitation as cheap labor. Privatization of the public space has disconnected power from social obligation, making it more difficult for individuals and institutions to have a language that can accommodate the principles of racial justice as a common good. In addition, the race color-blind ideology enables powerful white groups to ignore the degree to which racism is entangled with unequal power relations and as a force for exclusion and discrimination. It is in this context of silence and obscurity that academia is called upon to revisit modernity and its relation to empire with a critical perspective on globalization.

AUTHOR CONTRIBUTIONS

All authors listed have made a substantial, direct and intellectual contribution to the work, and approved it for publication.

REFERENCES

- Akokpari, J. K. (2001). Globalization and the challenges for the African state. *Nordic J. Afr. Stud.* 10, 188–209.
- Alexander, S. (2009). *What Would Gunnar Myrdal Say? Sweden, the Right to Health and Ethnic and Racial Minority Migrants* (Master thesis). Lund, Sweden: Lund University.
- Arora, S., Coker, N., and Gillam, S. (2001). "Racial discrimination and health services," in *Racism in Medicine. An Agenda for Change*, ed N. Coker (London: King's Fund), 141–167.
- Baptist, E. (2014). *The Half Has Never Been Told: Slavery and the Making of American Capitalism*. Philadelphia, PA: Basic Books.
- Batnitzky, A., and McDowell, L. (2011). Migration, nursing, institutional discrimination and emotional/affective labour: ethnicity and labour stratification in the UK National Health Service. *Soc. Cult. Geogr.* 12, 181–201. doi: 10.1080/14649365.2011.545142
- Bergmark, Å. (2008). Market reforms in Swedish health care: normative reorientation and welfare state sustainability. *J. Med. Philos.* 33, 241–261. doi: 10.1093/jmp/jhn010
- Bhambra, G. K. (2014). *Connected Sociologies*. London: Bloomsbury.
- Bhambra, G. K. (2016). Whither Europe? *Interventions* 18, 187–202. doi: 10.1080/1369801X.2015.1106964
- Blaut, J. M. (1992). The theory of cultural racism. *Antipode* 23, 289–299. doi: 10.1111/j.1467-8330.1992.tb00448.x
- Bonilla-Silva, E. (1997). Rethinking racism: toward a structural interpretation. *Am. Sociol. Rev.* 62, 465–480. doi: 10.2307/2657316
- Bonilla-Silva, E. (2014). *Racism Without Racists, 4th Edn.* Lanham, MD: Rowman and Littlefield.
- Bonilla-Silva, E., and Baiocchi, G. (2001). Anything but racism: how sociologists limit the significance of racism. *Race Soc.* 4, 117–131. doi: 10.1016/S1090-9524(03)00004-4
- Bradby, H. (2010). What do we mean by "racism"? Conceptualising the range of what we call racism in health care settings: a commentary on Peek et al. *Social Sci. Med.* 71, 10–12. doi: 10.1016/j.socscimed.2010.03.020
- Bradby, H. (2014). International medical migration: a critical conceptual review of the global movements of doctors and nurses. *Health* 18, 580–596. doi: 10.1177/1363459314524803
- Bradby, H., Thapar-Björkert, S., Hamed, S., and Ahlberg, B. M. (2019). Undoing the unspeakable: researching racism in Swedish healthcare using a participatory process to build dialogue. *Health Res. Policy Syst.* 17:43. doi: 10.1186/s12961-019-0443-0
- Butler, C. N. (2015). The racial roots of human trafficking. *UCLA Law Rev.* 62, 1464–1514.
- Carlson, L. (2011). Critical race theory in a Swedish context. *SSRN Electr. J.* 2011–12 Nr1, 1–31. doi: 10.2139/ssrn.2402587
- Cole, M. (2018). "Racism in the UK: continuity and change," in *Education, Equality and Human Rights: Issues of Gender, 'Race', Sexuality, Disability and Social Class, 4th Edn.*, ed M. Cole (London: Routledge).
- Dahlstedt, M., and Neergaard, A. (2019). Crisis of solidarity? changing welfare and migration regimes in Sweden. *Crit. Sociol.* 45, 121–135. doi: 10.1177/0896920516675204

- Dasgupta, R. (2018). *The Demise of the Nation State*. Available online at: <https://www.theguardian.com/news/2018/apr/05/demise-of-the-nation-state-rana-dasgupta> (accessed November 20, 2018).
- Davidson, N., and Saull, R. (2016). Neoliberalism and the far-right: a contradictory embrace. *Crit. Sociol.* 43, 707–724. doi: 10.1177/0896920516671180
- Davis, A. (2013). *Recognizing Racism in the Era of Neoliberalism*. Available online at <https://truthout.org/article/recognizing-racism-in-the-era-of-neoliberalism/> (accessed March 04, 2018).
- Davis, D.-A. (2007). Narrating the mute: racializing and racism in a neoliberal moment. *Soul* 9, 346–360. doi: 10.1080/10999940701703810
- Dominelli, L. (1999). Neo-liberalism, social exclusion and welfare clients in a global economy. *Int. J. Soc. Welfare* 8, 14–22. doi: 10.1111/1468-2397.00058
- Earle, T. F., and Lowe, K. J. P. (2005). *Black Africans in Renaissance Europe*. Cambridge: Cambridge University Press.
- Eliassi, B. (2017). Conceptions of immigrant integration and racism among social workers in Sweden. *J. Progr. Hum. Serv.* 28, 6–35. doi: 10.1080/10428232.2017.1249242
- Eltis, D., and Richardson, D. (1997). *Routes to Slavery: Direction, Ethnicity and Mortality in the Transatlantic Slave Trade*. Ed. Routledge: Psychology Press.
- Essén, B., Hanson, B. S., Ostergren, P. O., Lindquist, P. G., and Gudmundsson, S. (2000). Increased perinatal mortality among sub-Saharan immigrants in a city-population in Sweden. *Acta Obstet. Gynecol. Scand.* 79, 737–743. doi: 10.3109/00016340009169187
- Estacio, E. V., and Saïdy-Khan, S. (2014). Experiences of racial microaggression among migrant nurses. *Glob. Qual. Nurs. Res.* 1, 1–7. doi: 10.1177/2333393614532618
- Friedman, F. (1962). *Capitalism and Freedom*. Chicago: University of Chicago Press.
- Gallagher, C. A. (2003). Color-blind privilege: the social and political functions of erasing the color line in post-race America. *Race Gender Class* 10, 22–37.
- Gaya, P. W., and Reason, P. (2009). Initiating action research: challenges and paradoxes of opening communicative space. *Action Res.* 7, 243–262. doi: 10.1177/1476750309336715
- Germack, H. D., Griffiths, P., Sloane, D. M., Rafferty, A. M., Ball, J. E., and Aiken, L. H. (2015). Patient satisfaction and non-UK educated nurses: a cross-sectional observational study of English National Health Service Hospitals. *Br. Med. J. Open* 5:e009483. doi: 10.1136/bmjopen-2015-009483
- Giroux, H. A. (2003). Spectacles of race and pedagogies of denial: anti-black racist pedagogy under the reign of neoliberalism. *Commun. Educ.* 22, 191–201. doi: 10.1080/0363452032000156190
- Go, J. (2013a). Decolonizing Bourdieu: colonial and postcolonial theory in Pierre Bourdieu's early work. *Sociol. Theory* 1, 49–74. doi: 10.1177/0735275113477082
- Go, J. (2013b). For a postcolonial sociology. *Sociol. Theory* 42, 25–55. doi: 10.1007/s11186-012-9184-6
- Godin, P., Davies, J., Heyman, B., Reynolds, L., Simpson, A., and Floyd, M. (2007). Opening communicative space: a Habermasian understanding of a user-led participatory research project. *J. Foren. Psychiatry Psychol.* 18, 452–469. doi: 10.1080/14789940701470283
- Goldberg, D. T. (2009). *The Threat of Racism: Reflections on Racial Neoliberalism*. Malden, MA: University of California; Wiley-Blackwell.
- Green, F. (2004). Work intensification, discretion, and the decline in well-being at work. *East. Econ. J.* 30, 615–625.
- Habermas, J. (1984). *Theory of Communicative Action, Vol. 1: Reason and the Rationalization of Society*. Boston, MA: Beacon.
- Hagey, R., Choudry, U., Goruge, S., Turritin, E. C., and Lee, R. (2001). Immigrant nurses's experience of racism. *J. Nurs. Schol.* 3, 89–394. doi: 10.1111/j.1547-5069.2001.00389.x
- Hansen, P., and Jonsson, S. (2014a). Another colonialism: Africa in the history of European integration. *J. Hist. Sociol.* 27, 443–361. doi: 10.1111/johs.12055
- Hansen, P., and Jonsson, S. (2014b). *Eurafrica: the Untold History of European Integration and Colonialism*. London: Bloomsbury.
- Hjern, A. (2012). Migration and public health. Health in Sweden: the National Public Health Report. *Scand. J. Public Health* 40(Suppl. 9), 255–267. doi: 10.1177/1403494812459610
- Hoberman, J. (2012). Black and blue: the origins and consequences of medical racism. Berkeley, CA: University of California Press. Retrieved from: <http://ebookcentral.proquest.com/lib/uu/detail.action?docID=867683>
- Honneth, A., and Joas, H. (eds.). (1991). *Communicative Action: Essays on Jürgen Habermas's Theory of Communicative Action*. Cambridge: Polity Press.
- Hübinette, T., and Lundström, C. (2014). Three phases of hegemonic whiteness: understanding racial temporalities in Sweden. *Soc. Ident.* 20, 423–437. doi: 10.1080/13504630.2015.1004827
- Kaelin, L. (2011). Care drain: the political making of health worker migration. *J. Public Health Policy* 32, 489–498. doi: 10.1057/jph.2011.43
- Kaika, M. (2017). Between compassion and racism: how the biopolitics of neoliberal welfare turns citizens into affective 'idiots.' *Eur. Plann. Stud.* 25, 1275–1291. doi: 10.1080/09654313.2017.1320521
- Kemmis, S. (2006). Participatory action research and the public sphere. *Educ. Action Res.* 14, 459–476. doi: 10.1080/09650790600975593
- Kemmis, S., and McTaggart, R. (2005). "Participatory action research: communicative action in the public sphere," in *Handbook of Qualitative Research*, eds N. Denzin and Y. Lincoln (Thousand Oaks, CA: Sage Publications), 559–603.
- Kothari, U. (2006). An agenda for thinking about 'race' in development. *Prog. Dev. Stud.* 6, 9–23. doi: 10.1191/1464993406ps124oa
- Lentin, A. (2008). Europe and the silence about race. *Eur. J. Soc. Theory* 11, 487–503. doi: 10.1177/1368431008097008
- Levi-Strauss, C. (1966). Anthropology: its achievements and future. *Curr. Anthropol.* 7, 124–127. doi: 10.1086/200688
- Lewis, D. (1973). Anthropology and colonialism. *Curr. Anthropol.* 14, 581–602. doi: 10.1086/201393
- Likupe, G., and Archibong, U. (2013). Black African nurses' experiences of equality, racism, and discrimination in the National Health Service. *J. Psychol. Iss. Organ. Cult.* 3, 227–246. doi: 10.1002/jpoc.21071
- Lowe, L. (2015). *The Intimacies of Four Continents*. Durham; London: Duke University Press.
- Lundberg, J., and Waldenström, D. (2016). *Wealth Inequality in Sweden: What Can We Learn From Capitalized Income Tax Data?* Available online at: http://www.uueconomics.se/danielw/Research_files/Capitalized%20Wealth%20Inequality%20in%20Sweden%20160422.pdf
- McElmurry, B. J., Solheim, K., Kish, R., Coffia, M. A., Woith, W., and Janepanish, P. (2006). Ethical concerns in nurse migration. *J. Prof. Nurs.* 22, 226–235. doi: 10.1016/j.profnurs.2006.03.006
- Monbiot, G. (2017). *Out of the Wreckage: A New Politics for an Age of Crisis*. London: Verso.
- Mueller, J. C. (2017). Producing colorblindness: everyday mechanisms of white ignorance. *Soc. Prob.* 64, 219–238. doi: 10.1093/socpro/spx012
- Mulinari, D., and Neergaard, A. (2017). Theorising racism: exploring the Swedish racial regime. *Nordic J. Migr. Res.* 7, 88–96. doi: 10.1515/njmr-2017-0016
- Nestel, S. (2012). *Colour Coded Health Care: The Impact of Race and Racism on Canadians' Health*. Toronto: Wellesley Institute.
- Nilsson, D. (2013). *Sweden-Norway at the Berlin Conference 1884–85 History, National Identity-Making and Sweden's Relations With Africa*. Current African Issues 53. Available online at: <http://www.diva-portal.org/smash/get/diva2:650999/FULLTEXT01.pdf> (accessed February 05, 2019).
- Nkansah-Amankra, S., Agbanu, S. K., and Miller, R. J. (2013). The political context of inequalities: disparities in health, poverty, incarceration, and social justice among racial groups in the United States: a critical review of evidence of close links with neoliberalism. *Int. J. Health Serv.* 43, 217–240. doi: 10.2190/HS.43.2.c
- OECD (2011). *Divided We Stand: Why Inequality Keeps Rising*. Paris: OECD Publishing. Available online at: <http://dx.doi.org/10.1787/9789264119536-en> (accessed February 28, 2019).
- OECD (2015). *In It Together: Why Less Inequality Benefits All*. Paris: OECD Publishing. Available online at: <http://dx.doi.org/10.1787/9789264235120-en> (accessed February 28, 2019).
- Omi, M. A. (2001). "The changing meaning of race," in *America Becoming: Racial Trends and Their Consequences, Vol. 1*, eds N. J. Smelser, W. J. Wilson, and F. Mitchell (Washington, DC: National Academy Press), 243–263.
- Paradies, Y., Ben, J., Denson, N., Elias, A., Priest, N., Pieterse, A., et al. (2015). Racism as a determinant of health: a systematic review and metaanalysis. *PLoS ONE* 10:e0138511. doi: 10.1371/journal.pone.0138511
- Priest, N., and Williams, D. R. (2018). "Racial discrimination and racial disparities in health," in *The Oxford Handbook of Stigma, Discrimination and Health*, eds B. Major, J. F. Davidio, and B. G. Link (Oxford University Press).

- Robbins, C. G. (2014). Racism and the authority of neoliberalism: a review of three new books on the persistence of racial inequality in a color-blind era. *J. Crit. Educ. Policy Stud.* 2, 244–274.
- Rodney, W. (1966). African slavery and other forms of social oppression on the upper Guinea Coast in the context of the Atlantic slave-trade. *J. Afr. Hist.* 7, 431–443. doi: 10.1017/S0021853700006514
- Rogers, D., and Moira, D. (2005). *Dismantling Racism Project Western States Center*. Available online at: <http://www.racialequitytools.org/resourcefiles/Western%20States%20%20Construction%20of%20Race.pdf> (accessed August 04, 2018).
- Rundquist, S. (2014). Race to be Scrapped From Swedish Legislation. *The Local*. Available online at: <https://www.thelocal.se/20140731/race-to-be-scrapped-from-swedish-legislation> (accessed November 15 2018).
- Salem, S., and Thompson, V. (2016). Old racisms, new masks: on the continuing discontinuities of racism and the erasure of race in european contexts. *Nineteen Sixty Nine*. 3, 1–24. Available online at: <https://escholarship.org/uc/item/98p8q169>
- Schierup, C., and Ålund, A. (2014). The end of Swedish exceptionalism? Citizenship, neoliberalism and the politics of exclusion. *Race Class* 53, 45–64. doi: 10.1177/0306396811406780
- Selberg, R. (2013). Nursing in times of neoliberal change: an ethnographic study of nurses' experiences of work intensification. *J. Work. Life Stud.* 3, 9–36. doi: 10.19154/njwls.v3i2.2548
- Shapiro, H. L. (1952). Revised version of UNESCO statement on race. *Am J Phys Anthropol.* 10, 363–8. doi: 10.1002/ajpa.1330100320
- Therborn, G. (2018). Twilight of Swedish Social Democracy. *New Left Rev.* 113, 5–26.
- Trepagnier, B. (2010). *Silent Racism: How Well Meaningwhite People Perpetuate the Racial Divide*. New York, NY: Routledge.
- Waldman, K. (2018). A sociologist examines the “White Fragility” that prevents white americans from confronting racism. *The New Yorker*.
- White, S. (2002). Thinking race, thinking development. *Third World Q.* 23:407419. doi: 10.1080/01436590220138358
- Williamson, S. H. (2017). Globalization as a racial project: implications for human trafficking. *J. Int. Women Stud.* 18, 74–88.
- Wilson, K. (2012). *Race, Racism and Development – Interrogating History, Discourse and Practice*. London: Zed Books.
- Wolgast, S., Molina, I., and Gardell, M. (2018). *Antisvart Rasism Och Diskriminering på Arbetsmarknaden: Skillnader Mellan Afrosvenskar Och Den Övriga Befolkningen i Bruttolön, Disponibel Inkomst Och Möjlighet Att Göra Karriär på Den Svenska Arbetsmarknaden*. Centre for Interdisciplinary Research on Racism; Uppsala University for Länsstyrelsen I Stockholms län.
- Young, H. (2005). The black body as souvenir in American lynching. *Theat. J.* 57, 639–657. doi: 10.1353/tj.2006.0054

Conflict of Interest Statement: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright © 2019 Ahlberg, Hamed, Thapar-Björkert and Bradby. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.



Are Sexist Attitudes and Gender Stereotypes Linked? A Critical Feminist Approach With a Spanish Sample

Rubén García-Sánchez^{1*}, Carmen Almendros², Begoña Aramayona¹,
María Jesús Martín¹, María Soria-Oliver³, Jorge S. López⁴ and José Manuel Martínez¹

¹ Department of Social Psychology and Methodology, Autonomous University of Madrid, Madrid, Spain, ² Department of Biological and Health Psychology, Autonomous University of Madrid, Madrid, Spain, ³ Faculty of Health Sciences, International University of La Rioja, Logroño, Spain, ⁴ Department of Psychology and Pedagogy, Public University of Navarre, Pamplona, Spain

OPEN ACCESS

Edited by:

Kath Woodward,
The Open University, United Kingdom

Reviewed by:

Nicole Anderson,
Brigham Young University,
United States
Carlos Chiclana,
CEU San Pablo University, Spain

*Correspondence:

Rubén García-Sánchez
ruben.garciasanchez@uam.es

Specialty section:

This article was submitted to
Gender, Sex and Sexuality Studies,
a section of the journal
Frontiers in Psychology

Received: 02 June 2019

Accepted: 09 October 2019

Published: 24 October 2019

Citation:

García-Sánchez R, Almendros C,
Aramayona B, Martín MJ,
Soria-Oliver M, López JS and
Martínez JM (2019) Are Sexist
Attitudes and Gender Stereotypes
Linked? A Critical Feminist Approach
With a Spanish Sample.
Front. Psychol. 10:2410.
doi: 10.3389/fpsyg.2019.02410

This study aims to verify the psychometric properties of the Spanish versions of the Social Roles Questionnaire (SRQ; Baber and Tucker, 2006), Modern Sexism Scale (MS), and Old-Fashioned Sexism Scale (OFS; Swim et al., 1995; Swim and Cohen, 1997). Enough support was found to maintain the original factor structure of all instruments in their Spanish version. Differences between men and women in the scores are commented on, mainly because certain sexist attitudes have been overcome with greater success in the current Spanish society, while other issues, such as distribution of power in organizational hierarchies or distribution of tasks in the household, where traditional unequal positions are still maintained. In all cases, it was found that men showed greater support for sexist attitudes. The correlations between the three instruments were as expected in assessing sexist attitudes that tend to relate to each other. Eventually, we found no empirical evidence for the postulated link between sexist attitudes and traditional gender stereotypes. Our results call for the validity and effectiveness of the classic theories of gender psychology, such as gender schema theories (Bem, 1981; Markus et al., 1982) and the notion of a gender belief system (Deaux and Kite, 1987; Kite, 2001).

Keywords: sexism, gender stereotype, psychometric properties, invariance, Spanish men and women

INTRODUCTION

The American Psychological Association (2011, 2015) recommends examining gender differences; however, it does not include any guide about how to interpret these differences in empirical studies. This situation results in the confusion of the terms “sex” and “gender” in academic and scientific texts (Pryzgod and Chrisler, 2000; Cowan, 2005; Wickes and Emmison, 2007; Hammarstrom and Annandale, 2012). Westbrook and Saperstein (2015) have shown the lack of sensitivity in the recognition of sexual and gender diversity in Social Sciences investigations, which not only results in a lack of recognition of persons not adjusting to the binarism of the sex/gender/sexuality system (Butler, 1990, 2004), but also in a serious bias in the production of scientific knowledge (Balarajan et al., 2011). To counteract these deficiencies Hesse-Biber and Leavy (2008) described some methodological approaches that can be very helpful when performing the

design of a research from a feminist epistemological perspective. There are also several statistical considerations to be made to improve the analysis of the data obtained in an empirical study: from the inclusion of sex as a moderator variable in the regression analyses (e.g., Baron and Kenny, 1986; Orue et al., 2016), to the application of structural equation models (e.g., factorial invariance) which allow a more complex, sophisticated analysis of gender differences (Byrne, 2008).

In line with a critical feminist approach, our aim was the assessment and the analysis of the relation between the attitudes on gender roles and gender stereotypes in a Spanish sample of women and men. We have taken as a frame of analysis the Social Role Theory (Eagly, 1987), the Gender Schema Theories (Bem, 1981; Markus et al., 1982; Spence, 1985), and the Gender Belief System (Deaux and Kite, 1987; Kite, 2001). We have chosen this theoretical framework as they are the main proposals in Gender Psychology that have established some type of relationship between the social changes in women's position in society, the adoption of traditional gender roles and stereotypes and maintaining sexist attitudes about men and women. By such, we intended to contribute to the study of gender in Spain, responsibly using the most appropriate procedures for the analysis of differences between men and women on the basis of the results of instruments of assessment of sexist attitudes and gender stereotypes.

Exploring the Relation Between Gender Role Attitudes and Gender Stereotypes

Social Role Theory

The Social Role Theory is based on the assumption that in every community tasks are divided assigning different roles and responsibilities according to the sex/gender of the persons (Eagly and Wood, 1991, 1999; Eagly et al., 2000; Wood and Eagly, 2002). This labor division would become the backbone for the social structure of the community (Wood and Eagly, 2010, 2012), thus generating social inequalities according to the privileges, rights, and obligations associated with each sex/gender. Therefore, gender stereotypes would be given content and would define the expectations about the appropriate behaviors, traits or attitudes for men and women (Eagly et al., 2000). Based on these gender roles, gender identity would emerge (Wood and Eagly, 2009).

In Western societies, a patriarchal system predominates where roles associated with men are linked to a higher recognition and status, and roles associated with women are worse rated (Ridgeway and Bourg, 2004; Guimond, 2008). Political and legislative changes should produce significant changes in gender roles (Eagly and Wood, 1991, 1999; Eagly et al., 2000; Wood and Eagly, 2002) and these changes should also induce modification in the attitudes toward these gender roles (Eagly and Chaiken, 2007).

Gender Schema Theories

The Gender Schema Theory by Sandra Bem (1981) proposes that gender identity stems from the scheme the individual has about the roles assigned to men and women. These schemes are the stereotypes which organize the knowledge about men and

women, including physical characteristics and personality traits associated with men and women prototype, respectively.

According to Bem's proposal, persons identifying with their traditional gender role (women with feminine characteristics and male with masculine characteristics) tend to organize the information in dichotomous masculine-feminine terms. Later, Markus et al. (1982) made a change in this theory, highlighting that, irrespective of their biological sex, persons with masculine characteristics would process the information associated with the masculine stereotype from their own scheme, feminine persons would use their scheme with the information associated with the feminine condition, androgynous persons would do it with both types of information and "undifferentiated" persons would not process any information schematically.

However, the review of the investigations that have analyzed the scores in femininity and masculinity scales as predictors for behavior has not sufficiently supported these theories (i.e., Deaux et al., 1985; Frable and Bem, 1985; Beauvais and Spence, 1987; Payne et al., 1987). This led Janet Spence (1985) to propose an alternative model postulating a multidimensional approach to the study of masculinity and femininity. This model involved the creation of new instruments considering the different dimensions of the constructs (that is, Attitudes Toward Women Scale, Spence and Helmreich, 1972; Male-Female Relations Questionnaire, Spence et al., 1980). From this perspective, the Bem Sex Role Inventory (BSRI) and Personnel Attributes Questionnaire (PAQ) instruments would be defined as self-description measures in terms of "communal" and "agentic" traits. The main postulate of Spence was the consideration of gender as a multifactorial construct comprising attitudes, traits, interests, preferences and behaviors associated with men and women in society. However, the relationship between these elements does not need to be univocal and solid, but depends on other factors that may affect their transformation.

Gender Belief System

Based on the gender belief system model (Deaux and Kite, 1987; Kite, 2001) it is proposed that our views about men and women are conditioned by social expectations. The belief system includes the gender stereotypes, the attitudes toward the roles appropriate for each gender and the views about persons breaching these expectations. The concept of masculinity and femininity is bipolar, so that someone described with stereotyped masculine traits is also expected to have masculine physical characteristics and to adopt a masculine gender role (Deaux and Lewis, 1984; Berndt and Heller, 1986). Therefore, roles, traits and appearance form a consistent, interrelated system: it is associated with men having traits related to competence (i.e., confidence, independence or control) and women holding traits related to emotional expressiveness (i.e., warmth, kindness or concern for others) (Spence and Helmreich, 1978; Williams and Best, 1990); with regard to physical characteristics, men are expected to be stronger and have broader shoulders, and women more gentle and elegant; in turn, over the gender roles assigned, men are responsible for economic aspects and for making decisions, while women are assigned household tasks and care for others (Deaux and Lewis, 1984).

Assessing Sexist Attitudes and Gender Stereotypes

The study of gender stereotypes and the attitudes about gender roles is an area significantly developed in recent decades. For the most part, to be noted is the use of self-reports as the preferred assessment method in the studies intending to approach gender stereotypes and attitudes about gender roles (Smiler and Epstein, 2010). There are a number of measures that have been used. The most widely used are described herein.

Internalization of Stereotypes

Bem Sex Role Inventory (Bem, 1974). Together with the PAQ (Spence et al., 1975), it is the most commonly used instrument for the assessment of gender stereotypes (Smiler and Epstein, 2010). The stated initial purpose of Sandra Bem was, in line with the US feminist movement of the 70s, to promote a more liberal view of sexuality noting that both men and women could have characteristics of masculinity and femininity, thus resulting in the concept of androgynous personality (Bem, 1972). In its origin, the BSRI included 60 personality traits: 20 characteristics associated with the feminine gender stereotype (e.g., “compassionate,” “tender”), other 20 which make reference to the masculine gender stereotype (e.g., “assertive,” “strong”) and the last 20 considered as neutral to both gender stereotypes (e.g., “conventional,” “adaptable”). When the feminine scale score is significantly higher than the masculine score, the person is defined as “feminine,” and vice versa. When there are no significant differences but in both scales the score is above the median, the person is classified as “androgynous,” while if both scores are below the median, it is called “undifferentiated.” For the most part, studies have found that the “masculinity” and “femininity” scales are not significantly correlated (Aguíniga et al., 1987; Lenney, 1991), and that men and women score significantly higher in the scales consistent with their sex (Lenney, 1991). Hoffman and Borders (2001) performed a critical review of the last 25 years of use of the BSRI and concluded that the sociohistorical context in Western countries has considerably changed in recent years in respect to what was considered feminine and masculine at the time when the questionnaire was designed. However, the list of items has not been updated or reformulated. Furthermore, many authors have used the BSRI for the purpose of measuring masculinity and femininity, when it has been already extensively demonstrated that masculinity and femininity are broader concepts than the degree of adjustment to masculine roles (instrumental roles) and feminine roles (expressive traits) (e.g., Spence, 1985). Considering that factorial analyses have shown inconsistent results (Choi and Fuqua, 2003), together with the possible obsolescence of the items, caution is recommended when interpreting the results derived from its use (Smiler and Epstein, 2010).

Gender Role Attitudes

Old-Fashioned Sexism (OFS) and Modern Sexism Scales (MS) (Swim et al., 1995; Swim and Cohen, 1997). Both instruments arose from a previous study on racist attitudes. The OFS was designed to evaluate the most evident forms of sexism and the MS for detecting the most subtle aspects, such as resentment toward

policies and practices seeking to tackle inequalities between men and women in the society. The participants are asked about their degree of agreement with a number of sentences that represent sexist attitudes about men and women. Good psychometric indicators have been reported in their extensive use (Smiler and Epstein, 2010).

Ambivalent Sexism Inventory (ASI; Glick and Fiske, 1996). It was used to evaluate hostile and benevolent sexism. The authors defined hostile sexism as a prejudice that places women as adversaries to men. Benevolent sexism would be defined as a manifestation through which men would protect women due to their presumed incompetence outside the area of intimacy and care for others. There are items about protective paternalism, complementary gender differences and heterosexual intimacy.

Social Roles Questionnaire (SRQ; Baber and Tucker, 2006). Due to its more recent publication, this questionnaire still shows a reduced use in empirical studies. However, its proposal intends to be an advance that can enrich the study of gender roles and sexist attitudes. With this regard, the authors point to flaws in previous instruments, i.e., being obsolete and reproducing a dichotomous gender view. Based on a social constructivist perspective, they proposed this new instrument for the assessment of attitudes on the social roles in the United States society, intending to overcome these limitations. This instrument included references to behaviors associated with men or women, as well as other items intending to gather more subtle or hidden attitudes to support gender inequality. In its original version, the instrument included three subscales: “General,” “Childhood,” and “Gender Transcendent” (GT). The first two were subsequently joined obtaining a final two-factor proposal.

Current Social Position of Women in Spain

The feminist movement in Spain has forced to the political parties to achieve a commitment with the gender equality. However, the real equality still requires a major effort, as the current situation in Spain is not fair and equal for women. According to the most current data provided by the Spanish Instituto de la Mujer (2016), we provide a list of the indicators we consider most relevant to reflect the position of women in Spanish society today.

Educational System

The percentage of women enrolled in Primary and Secondary Education has remained stable, around 48%, in the past 20 years. However, the number of women enrolled in high school has decreased progressively to two percentage points from the academic year 1998–1999 (54.5%) to the academic year 2013–2014 (52.4%).

According to the different educational routes in the Spanish educational system, Intermediate Level and Advanced Level Vocational Training courses are offered, with different specialties. In both educational routes, it is seen that the branches where women are more represented were “Personal Image” with about 94% of women enrolled, “Social Services to the Community” with about 86% and “Textiles, Clothing Production and Leather” with about 88% women enrolled. This distribution in the different specialties has remained stable in the past 15 years.

According to the percentage of women enrolled in university degrees, we find 4.38% over the total enrollments in the academic year 2013–2014, which has remained stable in the past 10 years. According to the field of education, from higher to lower, in “Health Sciences” 69.6% are women, in “Arts and Humanities” 61.5%, in “Social and Legal Sciences” we find 60.4%, in “Sciences” 51.6% and in “Engineering and Architecture” 26.1%. Again, this distribution has remained unchanged in the past 10 years.

Labor Market

According to the last data for 2016, the fields of activity with a higher percentage of women are “Activities of households such as employers of domestic workers” (88.9%), “Human Health and Social Work Activities” (77.1%), and “Education” (66.6%). The fields with the lowest presence of women are “Building” (7%), “Extraction Industries” (10.5%), and “Water supplies and sanitation activities” (16.3%). In all cases, very similar percentages have persisted in the past 10 years.

By type of working day, part-time jobs have been still dominated by women in the past year. In 2015, 72.5% of the population working part time were women, vs. 40.3% of women working full time. Since 2005, a minor variation has taken place in this distribution, as then there were 78.1% women working part time and 34.6% working full time.

The type of contract has also changed slightly since 2005. Then 40.3% of the permanent contracts and 44.7% of the temporary contracts were signed by women. In 2015, however, both figures increased, 47.8% of women with permanent contracts and 48% of women with temporary contracts.

With regard to salaries, since the year 2004 a negative difference persists, around 18.8%, when comparing the hourly earnings per hour of women vs. men. The average pay gap in the European Union is 16.1%.

Reconciliation of Work With Family Life

The percentage of women requesting leaves of absence for caring for their relatives has remained unchanged since 2005, around 84% vs. men. With regard to leaves of absence for the care of children, the situation is similar, with 96.7% of women in 2005 and 93.3% in 2015.

According to the Survey on use of time (2009–2010), women dedicate 4 h 7' to “home and family” vs. 1 h 54' dedicated by men. The tasks to which women devote more time are: 1 h 24' to “cooking activities,” 49' to “home maintenance” and 32' to “children care”; while men devote a longer time to “cooking activities” (26') and “purchases and services” (17').

Leading Positions

We can analyse the presence of women in state agencies and large companies to reflect the access level of women to leading positions.

- Women in senior positions of the Central State Administration have turned from 14.4% in 1995 to 32% in 2014.
- Women in IBEX-35 companies boards of directors have turned from 2.6% in 2004 to 18.2% in 2014.

- In the justice system, counting the positions of public prosecutors, secretaries of the courts and members of the judiciary, women represented 41.3% in 1995 and 58.8% in 2014.
- The percentage of women in boards of directors in Royal Academies is still much lower than in men; in 2015, we find 10.6% of women, that was 9.3% in 2011.
- The percentage of women in the Spanish Parliament has changed markedly, from 5.1% in the 1979–1982 term of office to 35.7% in 2011–2015.

This Study

We have used three instruments of assessment of sexist attitudes that were translated into Spanish: SRQ (Baber and Tucker, 2006), OFS, and MS (Swim et al., 1995; Swim and Cohen, 1997). We have chosen these instruments for various reasons: the SRQ is one of the most current approaches to the study of sexist attitudes and adequate psychometric properties have been reported in a similar population in the United States; on the other hand, the OFS and the MS, even being older, are two very accurate instruments in the study of sexist attitudes in their two modalities and have been used in multiple studies (Smiler and Epstein, 2010) thus becoming two of the most important instruments in the field.

First, through confirmatory factor analysis (CFA), we intended to determine whether the Spanish versions of the scales had an internal structure similar to the original versions. We expected to confirm the two-factor structure for the SRQ and the one-factor models for both the OFS and MS scales, as originally proposed and further supported in the literature.

Second, we intended to examine the differences between men and women in their mean scores in the items of the SRQ, OFS, and MS. Consistent with prior findings (Swim et al., 1995; Swim and Cohen, 1997; Baber and Tucker, 2006), we expected men to have higher scores than women, thus showing greater support to sexist attitudes. We explored the equivalence between men and women in the factorial structures of the SRQ, OFS, and MS.

Finally, we intended to determine the relationships among the three instruments scores and whether upholding traditional gender stereotypes was empirically related to the SRQ, OFS, and MS scales scores. The internalization of the gender stereotypes was evaluated by the BSRI (Bem, 1974). In this respect: (1) We expected high positive correlations between SRQ, OFS, and MS in both men and women, considering that, independently, both SRQ (Baber and Tucker, 2006) and MS and OFS (Swim et al., 1995) have shown significant relationships with other instruments that evaluate sexist attitudes, such as AWS and ASI (Ogletree, 2015); (2) We classified the sample according to gender stereotypes evaluated by the BSRI and we wish to confirm the following hypothesis: (a) According to the Gender Social Role Theory (Eagly, 1987) we could expect that both men and women show the same support level to the different sexist attitudes evaluated with the instruments used. Despite the social achievements reached in matters of gender equality, there are several elements (e.g., segregation of women in some job positions, with a lower responsibility, higher temporary employment rate and greater instability of employment) that could affect the items regarding the distribution of household

tasks and those referring to equality in the work environment are those obtaining the highest score; (b) According to the proposals of Bem (1981) and Markus et al. (1982), sex and gender stereotype will have a direct relationship with maintaining sexist attitudes, so that masculine men and feminine women will have higher scores or, independently from sex, the masculinity and femininity scale will correlate positively with sexism measures. On the other hand, according to Spence's (1985) proposal no direct relationship would be expected between these variables; (c) Finally, according to the Gender Belief System a significant correlation would be expected between the measures of stereotypes and sexist attitudes.

MATERIALS AND METHODS

Participants and Procedure

Participants included 700 undergraduate students (176 men, 524 women), who ranged in age from 20 to 54 years ($M = 21.4$; $SD = 4.9$). They were enrolled in the third year of psychology graduate studies. Only students who were originally from Spain and reported being heterosexual were selected for this study.

The Ethics Committee of the Autonomous University of Madrid approved this study. Following their statement, all the data for this study was solicited to undergraduate students enrolled in Psychology degree within three different academic terms (2012–2014): all students could choose participation in this study among other equivalently activities; participants completed the instruments in collective sessions in the classrooms; informed consent for participation was previous obtained; anonymity of all participants was assured.

Measures

Bem Sex Role Inventory-12 (Bem, 1974, 1981; Spanish 12-Item Version by Mateo and Fernández, 1991)

It measures self-perceived possession of expressive and instrumental attributes, considered socially desirable for women and men, respectively. The response format is based on a Likert scale from 1 (*never or almost never*) to 7 (*always or almost always*). The short version comprises 12 attributes, six of which represent the dimension of "masculinity" (M) (e.g., "a natural leader") and other six of "femininity" (F) (e.g., "affective"). For the adaptation into Spanish, Mateo and Fernández (1991) performed a process of translation and back-translation of the original scale. In a more recent study, Fernández and Coello (2010) reported the internal consistency of the BSRI-12 finding a Cronbach's alpha for the "masculinity" scale of 0.73 and for "femininity" of 0.77. Cronbach's alpha for the Masculinity scale scores in the sample of men of this study was 0.80 and for women 0.80. The Femininity scale scores showed values of 0.79 for men and 0.82 for women.

Modern Sexism Scale (Swim et al., 1995)

It was designed to evaluate subtle or hidden beliefs stating support to gender inequality. It comprises eight items (e.g., "Women often miss out on good jobs due to sexual discrimination") evaluated in this study in a 5-point Likert-type

scale (1 = *strongly disagree* to 5 = *strongly agree*). In the English version the order of the response choices is inverse. However, we decided to keep the same direction of the assessment scale as in the rest of instruments used in the study, so that the lowest scores indicated a greater support to traditional attitudes. In the original version the Cronbach alpha ranged from 0.84–0.75 in different studies (Swim et al., 1995; Swim and Cohen, 1997).

Old-Fashioned Sexism Scale (Swim et al., 1995)

This instrument evaluates openly sexist attitudes toward women. It comprises five items (e.g., "I would be equally comfortable having a woman as a boss as a man") evaluated in a 5-point Likert-type scale (1 = *strongly disagree* to 5 = *strongly agree*). As with the above instrument, in our study the low scores indicate a greater support to sexist attitudes. In the original version the Cronbach's alpha ranged from 0.66–0.65 in various studies (Swim et al., 1995; Swim and Cohen, 1997). Both scales have been translated into Spanish in a study for a Ph.D. dissertation (Rodríguez, unpublished, cited in Rodríguez et al., 2010); however, no psychometric properties have been reported.

Social Roles Questionnaire (Baber and Tucker, 2006)

It comprises 13 items related to the expectations on the behavior that men and women must have in society. Each item is evaluated using a 5-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*). It is structured in two subscales: "GT" with five items (e.g., "People should be treated the same regardless of their sex") that evaluates the support on the attitudes which keep a non-dichotomous gender view; and "Gender Linked" (GL) with eight items (e.g., "Mothers should work only if necessary") that evaluates the beliefs about the association of some activities with one or the other gender. The original study reported Cronbach's alpha values of 0.65 for GT and 0.77 for GL. In our study, we have recoded inversely the items from the "GT" factor, following the indications of the original authors, so that the interpretation of the scores obtained in both factors is performed with the same meaning: high scores indicate a greater support to sexist attitudes. A Spanish version (López-Cepero et al., 2013) was examined through a CFA finding sufficient support to the two-factor solution. However, the internal consistency of the items for the "GT" factor was lower than 0.47 in men and women, and the "Gender Liked" factor was 0.77. These data led the authors to recommend the review of the translation into Spanish for subsequent use.

Back-Translation of the SRQ, MS, and OFS Spanish Versions

The International Test Commission has established a methodological standard to adequately adapt instruments from one culture to a new one (Hambleton, 1994, 1996; Muñiz et al., 2013). Following these recommendations, the first step was to evaluate the possible influence of the cultural and linguistic differences in the Spanish context. In this regard, a team of five expert investigators provided advice. Later, two qualified translators, one of them of Spanish origin and the other one of English origin, were trained on the constructs evaluated and they translated and back-translated all the items. The expert team

help to evaluate the equivalence between the two original version and the Spanish version, making the appropriate changes in the new versions.

Data Analyses

The software SPSS version 19.0 (IBM Corp, 2010) and EQS 6.1 (Multivariate Software, Inc., Bentler, 1995) were used for data analyses. The scores for each item were compared between the samples of men and women using the student's *t*-test. An analysis of the effect power was also performed using the Cohen's (1988) *d* statistics to estimate the magnitude of the result obtained (Wilkinson et al., 1999). A value of 0.2 would correspond to a small effect size, 0.5 moderate and 0.8 high (Cohen, 1988).

Confirmatory factor analysis were conducted on the SRQ items for the men and women groups. Three different models were tested: (1) the original two-factor model (Baber and Tucker, 2006), and (2) a one-factor model that included all of the items of the SRQ. For the MS and OFS scales the following models were examined for men and women: (1) original one-factor models for both scales (Swim et al., 1995; Swim and Cohen, 1997), and (2) a joint model with two related factors corresponding to each scale. In all cases, the model fit was evaluated considering the following fit indices: the comparative fit index (CFI; Bentler, 1990), the non-normed fit index (NNFI; Bentler and Bonett, 1980), the root mean square error of approximation (RMSEA; Steiger, 1990), and the standardized root mean square residual (SRMR; Jöreskog and Sörbom, 1996). CFI and NNFI values greater than 0.90, RMSEA less than 0.06 and SMRS less than 0.08 (Byrne, 1994; Cheung and Rensvold, 2002) evidence a good model fit.

Multigroup CFA models were conducted to examine the invariance across the men and women samples of the components of the model and the underlying theoretical structure (Byrne et al., 1989). In order to assess for measurement invariance across the samples, it was used the robust maximum likelihood estimation. Testing for equivalence based on the analysis of means and covariance structures follows a set of steps (Byrne, 2008): (1) first, to determinate a good multigroup baseline model fit, (2) Model 1: a configural model is the least restrictive model; it consist of testing the same configuration of fixed and freely estimated parameters with no equality constraints, (3) Model 2: it implies the constraints of observed variables and their links to the latent variables (i.e., factor loadings), (4) Model 3: it involves the unobserved variables too (i.e., factor covariances), (5) Model 4: it adds to the previous ones the intercepts invariant, and finally (6) testing for latent means differences between groups. We used two indicators to test invariance: (1) the corrected scale S-B χ^2 difference test developed by Satorra and Bentler (2001). If this difference is statistically significant, it indicates that the constraints specified in the model do not hold; (2) the changes in CFI, as a less vulnerable indicator to variations in sample size and non-normality (Cheung and Rensvold, 2002; Cheung, 2008). This difference should not exceed 0.01.

To analyse the empirical relationship between SRQ, MS, and OFS measures and the BSRI instrument, the following analyses were performed: (1) bivariate correlations between all scales, dividing the sample into men and women; and (2) classify the sample according to the score obtained in the

"Masculinity" (M) and "Femininity" (F) scales of the BSRI in four groups ("Undifferentiated," "Masculine," "Feminine" and "Androgynous"), taking the median as a cut-off point (for men in the M scale it was 4.7 and in the F scale it was 5.5; for women 4.4 and 5.7 for M and F, respectively); finally, given the non-normal group distribution by sex and the classification of the BSRI, as well as the different groups sizes, Kruskal-Wallis tests were performed to analyse the differences in the score ranges obtained in SRQ, MS, and OFS between the different groups.

RESULTS

Reliability: Internal Consistency

The Cronbach's alpha coefficients attained low but sufficient values for the subscales scores of SQR: males "GT" ($\alpha = 0.6$) and "GL" (0.8); Females "GT" (0.6) and "GL" (0.7). Appropriate Cronbach's alpha values were found for the MS in the group of men (0.8) and women (0.8); however, low values were found for the OFS scores in both the group of men (0.5) and of women (0.5).

Item Analysis

The means, standard deviations and item-total correlations of the SRQ items are shown in **Table 1**. Several items showed an item-total correlation value under 0.3: in the case of men item 1 and in the case of women also item 1, in addition to item 6 and 10. In respect to the mean scores obtained by men and women in the global scores of the subscales, significant differences were found with a moderate effect size in GL and small in GT, in both cases men having higher scores. This was also the case for items showing significant differences, with small effect sizes for all those of the GT subscale, and most of the GL items, but for item 8 (moderate).

The same descriptive data for the MS and OFS instruments are shown in **Table 2**. The MS items evidenced item-total correlations above 0.4, except for item 8. The OFS instrument items obtained item-total correlations values between 0.2 and 0.3 in men and between 0.2 and 0.3 in women. The differences in the mean global scores of both instruments between men and women were significant and with a moderate effect size in both cases. Women's scores were higher in all items of both scales, indicating a lower support to traditional sexist attitudes. Effect sizes were generally small for MS (but for item 7, moderate) and OFS items.

Factor Analyses

The fit indices for the factorial analyses of the SRQ models are shown in **Table 3**. The two-factor model reached appropriate levels of fit in male and female samples and yielded higher values of CFI and NNFI and a lower S-B χ^2 value than the one-factor model.

For the CFA of the MS and OFS scales, a double approach was used (**Table 4**): first, the one-factor models were examined for each scale in both sexes, finding poorly appropriate values for the fit (low CFI and NNFI and high RMSEA values) in the group of men. In the case of women the one-factor model for MS did not obtain appropriate values either, but did for the OFS scale (CFI

TABLE 1 | Descriptive statistics and factor loadings (CFA two-factor model) and mean scores comparison of SRQ for males ($n = 176$) and females ($n = 524$).

Items	Males			Females			Student t	df	Cohen's d
	M (DT)	r^2_{ix}	Factor loadings	M (DT)	r^2_{ix}	Factor loadings			
GT	1.4 (0.5)			1.3 (0.4)			2.586**	248,384	0.27
Item 1	1.4 (0.8)	0.25	0.382	1.4 (0.8)	0.24	0.305	0.121	698	0.01
Item 2	1.4 (0.8)	0.34	0.427	1.2 (0.5)	0.44	0.487	2.755**	212,756	0.31
Item 3	1.3 (0.7)	0.49	0.646	1.3 (0.6)	0.47	0.708	1,237	273,940	0.12
Item 4	1.2 (0.5)	0.52	0.701	1.1 (0.4)	0.31	0.416	2.818**	234,930	0.29
Item 5	1.5 (0.8)	0.47	0.544	1.4 (0.7)	0.41	0.596	2.046*	260,525	0.20
GL	1.8 (0.6)			1.6 (0.5)			5.144**	248,174	0.51
Item 6	2.2 (1.1)	0.33	0.355	1.9 (0.9)	0.29	0.300	3.200**	267,372	0.30
Item 7	2.3 (1.2)	0.40	0.433	2.1 (1.1)	0.39	0.452	1,730	279,735	0.16
Item 8	2.4 (1.3)	0.51	0.621	1.8 (1.0)	0.56	0.722	5.125**	248,845	0.50
Item 9	1.5 (0.7)	0.34	0.399	1.4 (0.7)	0.46	0.479	0.193	698	0.01
Item 10	1.3 (0.7)	0.42	0.536	1.1 (0.4)	0.29	0.317	3.298**	225,041	0.35
Item 11	1.9 (1.1)	0.50	0.578	1.6 (0.9)	0.36	0.469	2.992**	260,921	0.28
Item 12	1.8 (1.1)	0.58	0.719	1.4 (0.8)	0.51	0.687	3.796**	245,542	0.38
Item 13	1.4 (0.8)	0.53	0.592	1.2 (0.5)	0.30	0.370	3.994**	223,873	0.43

** $p < 0.01$; * $p < 0.05$. r^2_{ix} : item-total correlation. GT = Gender Transcendent; GL = Gender Linked.

TABLE 2 | Descriptive statistics and factor loadings (CFA two-factor merge model) and mean scores comparison of MS and OFS for males ($n = 176$) and females ($n = 524$).

Items	Males			Females			Student t	df	Cohen's d
	M (DT)	r^2_{ix}	Factor loadings	M (DT)	r^2_{ix}	Factor loadings			
MS	3.7 (0.6)			3.9 (0.6)			-4.173**	696	0.37
Item 1	4.0 (0.9)	0.64	0.816	4.2 (0.8)	0.57	0.659	-2.762**	695	0.26
Item 2	3.9 (0.9)	0.44	0.510	4.1 (0.9)	0.39	0.455	-0.809	696	0.08
Item 3	4.1 (1)	0.45	0.551	4.1 (1)	0.46	0.523	-0.809	696	0.07
Item 4	4.1 (0.9)	0.49	0.610	4.1 (0.9)	0.57	0.639	0.033	696	0.00
Item 5	3.5 (1)	0.49	0.608	3.7 (0.9)	0.53	0.604	-2.182*	696	0.19
Item 6	3.3 (1.1)	0.45	0.458	3.7 (0.9)	0.52	0.612	-4.923**	271,750	0.45
Item 7	3.6 (1.1)	0.49	0.493	4.1 (0.8)	0.58	0.669	-5.311**	246,721	0.53
Item 8	3.2 (1.1)	0.31	0.324	3.5 (1.1)	0.35	0.398	-3.062**	696	0.27
OFS	4.6 (0.5)			4.7 (0.4)			-3.685**	257,682	0.35
Item 1	4.7 (0.8)	0.24	0.308	4.8 (0.7)	0.20	0.279	-1.948*	261,137	0.18
Item 2	4.6 (0.8)	0.31	0.414	4.7 (0.7)	0.16	0.261	-2.247*	260,563	0.21
Item 3	4.7 (0.9)	0.29	0.493	4.8 (0.7)	0.32	0.500	-1,275	261,452	0.12
Item 4	4.5 (1)	0.26	0.373	4.7 (0.9)	0.20	0.282	-2.256*	276,778	0.21
Item 5	4.5 (0.8)	0.24	0.407	4.7 (0.6)	0.33	0.610	-2.839**	243,967	0.29

** $p < 0.01$; * $p < 0.05$. r^2_{ix} : item-total correlation. MS = Modern Sexism; GL = Old-Fashioned Sexism.

and NNFI close to 1 and low RMSEA). Second, given the disparity found in both sexes and considering the high correlation between the scales, the fit of a two-factor model with the items of each scale grouped as correlated factors was examined (two-factor merge model). This model found sufficiently appropriate values in both sexes, so the factorial invariance analysis was continued. Factor loadings of the MS and OFS items on the two-factor merge model are shown in **Table 2**.

Measurement Invariance

For the SRQ, the configural model (Model 1) indicated that the multigroup model fit well across the male and female samples

(**Table 5**). The comparison of Model 2 and configural model was shown to be non-invariant, so the modification indices offered by the LM test were followed, suggesting release of non-invariant items 4 ($p = 0.00$) and 13 ($p = 0.01$). Once released, the modified Model 2 was compared with the configural model, indicators evidencing equivalence. For the following models both items were kept released, so that the assessment of the partial invariance of the instrument was continued. Equivalence Model 3 was adequate, the $\Delta S-B \chi^2$ was not significant and the ΔCFI was <0.01 , reflecting partial invariance compared to the configural model. In the comparison of Model 4 and the configural model, $\Delta S-B \chi^2$ was significant, despite ΔCFI being <0.01 . The results

TABLE 3 | Summary of fit indices for the CFAs of SRQ for males ($n = 176$) and females ($n = 524$).

Model	S-B χ^2	CFI	NNFI	SRMR	RMSEA
Males					
One-factor model	115,128	0.827	0.793	0.074	0.066 (CI:0.046, 0.086)
Two-factor model	90,258	0.909	0.890	0.064	0.048 (CI:0.021, 0.070)
Females					
One-factor model	184,024	0.806	0.768	0.060	0.059 (CI:0.049, 0.069)
Two-factor model	112,055	0.922	0.905	0.046	0.034 (CI:0.026, 0.049)

S-B χ^2 = Satorra-Bentler scaled chi-square; CFI = comparative fit index; NNFI = non-normed fit index; RMSEA = root mean square error of approximation; SRMR = standardized root mean square residual; CI = 90% confidence interval.

TABLE 4 | Summary of fit indices for the CFAs of MS and OFS for males ($n = 176$) and females ($n = 524$).

Model	S-B χ^2	CFI	NNFI	SRMR	RMSEA
Males					
One-factor MS model	51,903	0.860	0.804	0.072	0.096 (CI:0.064, 0.128)
One-factor OFS model	9,786	0.813	0.627	0.048	0.074 (CI:0.000, 0.142)
Two-factor merge model	95,440	0.891	0.867	0.067	0.053 (CI:0.029, 0.074)
Females					
One-factor MS model	134,646	0.864	0.810	0.058	0.105 (CI:0.088, 0.122)
One-factor OFS model	5,930	0.978	0.956	0.029	0.019 (CI:0.000, 0.066)
Two-factor merge model	194,149	0.854	0.823	0.054	0.062 (CI:0.052, 0.072)

S-B χ^2 = Satorra-Bentler scaled chi-square; CFI = comparative fit index; NNFI = non-normed fit index; RMSEA = root mean square error of approximation; SRMR = standardized root mean square residual; CI = 90% confidence interval.

of the LM test suggested modifications for several intercept constraints. So, we may conclude that the intercept equivalence was not achieved, and we didn't further continue to compare the latent means.

The factorial invariance analysis of the two-factor model of MS and OFS (Table 6) found adequate values of the equivalence of the factor loadings and covariances (Model 3), but Model 4, as in the case of SRQ, indicated the lack of equivalence of

the intercepts: $\Delta S-B \chi^2$ was significant, despite ΔCFI being <0.01 . So, we may conclude that the intercept equivalence was not achieved.

Bivariate Correlations

The subscales of the SRQ instrument correlated to each other significantly in both sexes, as with the MF and OFS instruments with each other also in men and women (Table 7). The SRQ subscales had significant negative relationships with MS and OFS in both sexes, except for the "GL" subscale and the MS instrument in the group of men, which was non-significant. In the case of the BSRI, only a significant relationship was found: both in men and women, the "GT" subscale was positively related to the male stereotype in the case of men and negative in women. Correlations were small for women and small to moderate for men.

Mean Comparison Across Gender Stereotypes Classification

First, the median-split method was used for the classification of the sample in the four stereotypes measured by the BSRI. Table 8 shows the distribution by stereotype for men and women. A chi-square test was performed, finding no significant differences in the sample distribution by sex and gender stereotypes ($\chi^2 = 1.62$; $p = 0.66$).

Second, several Kruskal-Wallis tests were performed to compare the ranks for the instruments between the groups distributed by sex and gender stereotypes, finding significant differences in the scores of the "GL" subscale of SRQ ($p = 0.00$) and of the OFS (0.00) and MS instruments (0.02). Table 9 shows the means and the standard deviations. The significant relationships are shown below for pair comparisons:

- SRQ "GL" subscale: significant differences were found in the comparison of the group of "masculine" males and all groups of women: "undifferentiated" ($p = 0.01$), "masculine" (0.01), "feminine" (0.00), and "androgynous" (0.00). Significant differences were found between the group of "undifferentiated" men and that of "feminine" women (0.00).
- OFS: significant differences were found between the group of "undifferentiated" men and several groups of women: "undifferentiated" ($p = 0.00$), "masculine" (0.00), and "feminine" (0.00).

TABLE 5 | Measurement invariance of SRQ (two-factor model) for males ($n = 176$) and females ($n = 524$).

	S-B χ^2	CFI	NNFI	SRMR	RMSEA	$\Delta S-B \chi^2$	ΔCFI
Model 1 Configural	202,922	0.919	0.901	0.056	0.029 (CI:0.021, 0.036)		
Model 2 Factor loadings	322,536	0.896	0.917	0.083	0.031 (CI:0.024, 0.038)	29.026 (df = 11, $p = 0.00$)	0.023
Model 2 modified Items 4 and 13 free	294,275	0.913	0.901	0.041	0.029 (CI:0.021, 0.036)	14.442 (df = 9, $p = 0.12$)	0.006
Model 3 Covariances	298,179	0.912	0.900	0.078	0.029 (CI:0.021, 0.036)	19.081 (df = 10, $p = 0.10$)	0.007
Model 4 Intercepts	341,824	0.912	0.895	0.076	0.033 (CI:0.026, 0.039)	57.778 (df = 19; $p = 0.00$)	0.007

S-B χ^2 = Satorra-Bentler scaled chi-square; CFI = comparative fit index; NNFI = non-normed fit index; RMSEA = root mean square error of approximation; SRMR = standardized root mean square residual; CI = 90% confidence interval.

TABLE 6 | Measurement invariance of MS and OFS (two-factor merge model) for males ($n = 176$) and females ($n = 524$).

	S-B χ^2	CFI	NNFI	SRMR	RMSEA	Δ S-B χ^2	Δ CFI
Model 1 Configural	297,509	0.861	0.830	0.061	0.044 (CI:0.037, 0.050)		
Model 2 Factor loadings	307,743	0.861	0.844	0.065	0.042 (CI:0.024, 0.038)	11.013 (df = 11, $p = 0.44$)	0.000
Model 3 Covariances	308,822	0.861	0.845	0.065	0.042 (CI:0.035, 0.048)	11.601 (df = 12, $p = 0.48$)	0.000
Model 4 Intercepts	372,798	0.865	0.839	0.068	0.046 (CI:0.040, 0.052)	79.523 (df = 23; $p = 0.00$)	0.004

S-B χ^2 = Satorra-Bentler scaled chi-square; CFI = comparative fit index; NNFI = non-normed fit index; RMSEA = root mean square error of approximation; SRMR = standardized root mean square residual; CI = 90% confidence interval.

DISCUSSION

On the Psychometric Properties of Instruments

The results of this study provided additional evidence of the reliability, validity, and cross-cultural adequacy of the SRQ, OFS, and MS scales. With regard to the factorial structure of the instruments, as expected, fit indicators were obtained that supported the original two-factor structure of the Spanish version of the SRQ in both sexes (Baber and Tucker, 2006). However, in the case of the MS and OFS scales, the MS alone model exhibited a less than ideal fit to the data, but the OFS alone model showed a good fit to the observed data in the group of women. Given the high correlation between the scales in both sexes, the fit of a two-factor model was examined with the set of items of both scales (two-factor merge model), exhibiting adequate fit indicators, in line with the proposal of the original authors (Swim et al., 1995; Swim and Cohen, 1997).

TABLE 7 | Correlations for SRQ, MS, OFS, and BSRI for males ($n = 176$) and females ($n = 524$).

	SRQ – GT	SRQ – GL	OFS	MS	BSRI – MASC	BSRI – FEM
SRQ – GT	1	0.47**	–0.32**	–0.26**	0.17*	–0.15
SRQ – GL	0.40**	1	–0.32**	0.12	0.12	–0.11
OFS	–0.13**	–0.13**	1	0.16*	–0.02	0.09
MS	–0.09*	–0.23**	0.17**	1	–0.14	0.03
BSRI – MASC	–0.10*	–0.02	0.02	–0.03	1	0.04
BSRI – FEM	–0.05	–0.08	–0.02	–0.05	0.04	1

** $p < 0.01$; * $p < 0.05$. SRQ – GT = Social Role Questionnaire Gender Transcendent; SRQ – GL = Social Role Questionnaire Gender Linked; OFS = Old-Fashioned Sexism; MS = Modern Sexism; BSRI – MASC = Bem Sexual Role Inventory Masculine; BSRI – FEM = Bem Sexual Role Inventory Feminine. The correlations of sample of males are shown in the upper right corner and the sample of females in the lower left corner.

TABLE 8 | Distribution of males ($n = 176$) and females ($n = 524$) across gender stereotypes classification.

	Undifferentiated N (%)	Masculine N (%)	Feminine N (%)	Androgynous N (%)
Males	63 (35.8)	39 (22.2)	34 (19.3)	40 (22.7)
Females	197 (37.6)	112 (21.4)	116 (22.1)	99 (18.9)
Total	260 (37.1)	151 (21.6)	150 (21.4)	139 (19.9)

Percentages are over the total number of men and women.

With regard to the internal consistency of the Spanish versions of the instruments, values were comparable to those obtained in previous studies. The GT subscale of the SRQ exhibited moderate internal consistency values in both sexes, superior, however, to those found by López-Cepero et al. (2013). Less than ideal values consistently found for GT in Spanish samples might be related to the reduced number of items and all items being inversely worded. To be noted is the scarce relation of item 1 (“Persons can be both aggressive and affectionate, regardless of their sex”) to the rest of the items of GT for men and women. It is the only item making reference to a violent behavior, maybe relating to a very specific issue, which is the justification of violence in some contexts and its relationship with the gender differences in partner relations (Corral and Calvete, 2006; Garaigordobil et al., 2013). This might be markedly far from the content of the rest of the scale items. Of the other two scales, the Spanish version of the OFS exhibited questionable poor values in both sexes, lower to those moderate values reported elsewhere (Swim et al., 1995; Swim and Cohen, 1997). Again, there is a potential detrimental effect of the shortness of the scale, as well as the fact that three of its five items are inverse. Item 2 (“I would be equally comfortable having a woman as a boss as a man”) showed the lowest relation with the rest of items in the group of women. The content of item 2, alludes to a prejudice that might have not been overcome in the same consistent way as the rest of old-fashioned attitudes included in the instrument (e.g., recognizing that men and women have the same intellectual capacity). With regard to this, several studies have found that female leaders usually receive worse satisfaction ratings from their subordinates in some organizational contexts (Eagly et al., 1995; Cuadrado, 2003).

Differences Between Men and Women in the Assessment of Sexist Attitudes

The comparison among the scores exhibited by men and women in the items of the Spanish versions of the SRQ, OFS, and MS scales, and the assessment of invariance, provided interesting results. In all cases men expressed a greater support to sexist attitudes, which is consistent with previous studies using the same instruments or similar (Swim et al., 1995; Glick and Fiske, 1996; Campbell et al., 1997; Swim and Cohen, 1997; Baber and Tucker, 2006). For the SRQ, Item 8 (“Some jobs are not appropriate for women”) showed the greater difference among men and women. Its content may gather one of the sexist attitudes currently most established in the Spanish society where in fact we find very remarkable differences in the presence of men and women in some work areas (Heilman and Eagly, 2008; Bonilla, 2010;

TABLE 9 | Descriptive statistics of males ($n = 176$) and females ($n = 524$) across gender stereotypes classification.

	Males				Females			
	Indiferenciate <i>M (SD)</i>	Masculine <i>M (SD)</i>	Feminine <i>M (SD)</i>	Androgynous <i>M (SD)</i>	Indiferenciate <i>M (SD)</i>	Masculine <i>M (SD)</i>	Feminine <i>M (SD)</i>	Androgynous <i>M (SD)</i>
SRQ – GT	1.4 (0.5)	1.5 (0.5)	1.3 (0.3)	1.4 (0.5)	1.3 (0.4)	1.2 (0.4)	1.2 (0.3)	1.3 (0.3)
SRQ – GL	1.9 (0.6)	2 (0.6)	1.7 (0.6)	1.8 (0.6)	1.6 (0.5)	1.6 (0.5)	1.5 (0.5)	1.6 (0.5)
OFS	4.5 (0.5)	4.6 (0.6)	4.7 (0.5)	4.6 (0.5)	4.7 (0.4)	4.8 (0.3)	4.8 (0.3)	4.7 (0.5)
MS	3.8 (0.6)	3.6 (0.7)	3.8 (0.5)	3.6 (0.7)	3.9 (0.6)	3.9 (0.6)	3.9 (0.6)	3.9 (0.6)

SRQ – GT = Social Role Questionnaire Gender Transcendent; SRQ – GL = Social Role Questionnaire Gender Linked; OFS = Old-Fashioned Sexism; MS = Modern Sexism.

Gino et al., 2015), that grow in all cases in the power positions of the organizational hierarchy. According to the last reports of the Spain's Institute for Women, as indicated previously, women hold the job positions which are most temporal, part-time, with worst conditions and fewer employment rights. To be noted is the fact that men expressed a greater support to the sexist attitudes shown in the SRQ for considering gender as an essential factor when distributing tasks both at home and at work. These data are consistent with those found in other studies where men also expressed more overt sexist attitudes than women (Moya et al., 2007; Sibley et al., 2007). With regard to the differences in the analysis of the scores obtained by men and women in the MS and OFS items, as stated, women showed more egalitarian attitudes, contrary to sexism, evidenced in this case by higher scores, especially for Item 7 (*"It is easy to understand why feminist groups are still concerned about the social limitations in the opportunities for women"*). We find coherent that women obtain higher scores, as it has been shown that they adhere to a feminist identity to a higher degree (Zucker and Bay-Cheng, 2010; Parry, 2014), they understand better the claims of feminist groups and give their support (Hooks, 2000). In the case of OFS, though a small size effect was found, outstand Item 5 (*"When both parents work and their child gets sick, the school should call the mother rather than the father"*), which content is related to assigning household and care tasks in the family environment, finding in this a very marked sexist trend in Spain and in the rest of the Western countries (Instituto de la Mujer, 2016; United States Bureau of Labor Statistics, 2016).

In this study, we have tested the equivalence across sex of the factor structure, factor loadings and intercepts. The factor structure invariance (Model 1) and loadings (Model 2 and 3) was supported by SRQ, MS, and OFS. The joint model for MS and OFS obtained adequate values of goodness of fit at this comparison level; however, for SRQ Model 2 indicated the lack of equivalence suggesting the release of two items that were invariant between sexes (4: *"Household chores should not be assigned by sexes"*; 13: *"In many important jobs it is better to contract men than women"*). Once both items were released (Model 2 modified) adequate equivalence values were obtained both in this model and in Model 3. Both items exhibited significant differences in the mean scores, with men attaining higher scores. The content of the items mention two highly significant subjects related to the evolution of gender roles in Spain, that we have already discussed; on the one hand, household

chores are still distributed very unequally in our society, and women fulfill these tasks almost alone as a general rule, despite their joining the labor market (Silván-Ferrero and Bustillos, 2007); and on the other hand the unequal rating received by male and female leaders in senior posts of the organizational hierarchy (Eagly et al., 1995; Cuadrado, 2003). In conclusion, these are two sexist prejudices that have not been yet overcome *de facto* in our society, which could explain the different performance of these items when asking men and women.

At last, Model 4 tests whether an item has the same point of origin across different groups. For the Spanish versions of the instruments, we may conclude that intercept invariance is not achieved in either case, so the scores from men and women have not the same origin. Several factors can affect the origin of a scale, as pointed by Chen (2008): social desirability; the trend to show a strong desire for values involving a defect or deficit for the group to which one belongs; the cultural reference framework to which one belongs and from which self-judgments are made. In respect to these statements, in our study we have not included any measure of social desirability, so we cannot establish differences between men and women with this regard. However, differences shown in this level of measurement invariance, may lead to the questions: Does the Spanish cultural framework justify gender differences in our society? Have sufficient political or social achievements been obtained to overcome sexist attitudes? Are overt and subtle sexist attitudes held in the same way by men and women in our society? To discuss these questions we consider relevant to briefly discuss some sociological data that can help us understand the sociocultural framework of Spain with regard to gender differences. With this regard, several studies have noted that in the Spanish context sexist attitudes that denigrate and place women in a clear position of inequality are justified and held. One of the most clear examples is the unequal access to the labor market, and today there are disciplines fully polarized in terms of distribution by sex (in the Building sector only 7.6% are contracted and in the Industry 25.1%; Instituto de la Mujer, 2016), the inequality in salaries (women with permanent contracts are paid 25.7% less than men and in temporary contracts 10.4% less; Instituto de la Mujer, 2016) or the lack of opportunities for rising to power positions in the organizational hierarchy (in the level of "Managers and Directors" we find 31.4% women and 20.7% in governing boards of the companies of Ibex-35; Instituto de la Mujer, 2016). All of this leads us to the conclusion that in our country a great effort is still needed to

overcome the lack of opportunity, rights and freedoms assigned to persons on the basis of sex (García-Dauser, 2005).

Are We Assessing the Same Issue With Different Instruments?

The correlations obtained between the scores of the three instruments were those expected, as the interpretation of the MS and OF scores on the one hand and the SRQ on the other, is the opposite, that is, the higher the MF and OFS scores, the lower the support to sexist attitudes, and the higher the scores in the two SRQ scores, the greater the support to sexist attitudes.

However, given the lack of invariance in the three instruments in terms of intercepts (Model 4), we question if the existing instruments perform a sufficient, comprehensive approach to understand and explain the persistence of sexist attitudes in men and women in today's society. On the one hand, the validity of the instruments used to measure gender stereotypes and attitudes on gender roles must be analyzed critically. In none of these instruments the evaluation of personal beliefs, understanding of cultural stereotypes, sexist prejudices or degree of consistency between behavior and said stereotypes is distinguished (Zosuls et al., 2011). Those are clearly different contents on which the necessary effort has not been made to distinguish the multidimensional composition of the gender stereotypes and their characterization with the appropriate sensitivity to the differences between men and women.

On the other hand, the need for performing current qualitative studies gathering the social representation of the clearest inequalities in society should be also discussed. Although recent efforts have been made in the design of new self-reports (Baber and Tucker, 2006; García-Cueto et al., 2015), their proposal is clearly continuist in terms of the content and wording of the items. Future instrumental studies might benefit from considering different dimensions gathering various thematic areas where sexist attitudes are shown, such as the work environment, at home and within interpersonal relations, as well as traits and personal skills attributed to each sex. In this respect, a notable progress has been made by our society in terms of overcoming some of these attitudes as a result of social and political achievements of recent years (e.g., Laws on Gender Equality, 2007, and Same Sex Marriage, 2005), but there are other areas in which attitudes persist that justify serious differences between men and women, limiting the latter to an unfair inferior position.

Are Gender Stereotypes and Gender Roles Attitudes Linked?

In our study we have related gender stereotypes and gender roles attitudes in two different ways: (1) analyzing the correlations between the BSRI scales and instruments evaluating sexist attitudes; and (2) classifying the sample according to the prevailing stereotype and comparing scores in the instruments measuring sexism among the different groups. For the first

approach, contrary to the expectations based on the Gender Schema Theories (Bem, 1981; Markus et al., 1982) and Gender Belief System (Deaux and Kite, 1987; Kite, 2001), in the line of a direct relationship between holding traditional stereotypes and justifying gender differences, we found that the only significant correlations were between the subscale of "masculinity" and the GT subscale of SRQ, positive for men and negative for women.

CONCLUSION

We provided additional evidence that instruments have not been updated or reformulated according to the social changes occurring in the past decades in terms of the position of women in society and the evolution of sexist attitudes in the Western culture framework (Twenge, 1997; Hoffman and Borders, 2001). With this regard, we recommend a critical analysis of the psychometric properties of instruments of over three decades of age as urgent and necessary, as well as an update of their theoretical foundations and reformulations in order to reflect both the social roles and the stereotypes representative of the images of men and women in today's society.

This work shares common limitations, mainly related to the extraction and characteristics of the sample composed of relatively homogeneous groups of undergraduate students. In order to examine the psychometric properties of the instruments, we thought it preferable to exclude those participants with diverse original language and/or cultural backgrounds and sexual orientations, other than Spanish and heterosexual, respectively. The numbers of participants who were originally from other countries, whether Spanish-speaking or not, and non-heterosexual, were relatively small as to make it possible to do separate analyses. Thus, the rationale has to do with trying to ensure appropriate understating of the items and address possible nuances related to diversity. In this regard, future research should study heterogeneous samples in terms of sexual and gender diversity and would benefit from using qualitative methodologies to collect personal experiences in a comprehensive way.

Future investigations should also collect larger, diverse samples in terms of age, educational level, and occupation and, in this way, check that findings can be extrapolated to the rest of the Spanish population. Finally, in the light of our data and being aware of the limitations of our study (in terms of origin of the sample, exclusive use of self-report measures and their age), the results of this study questioned the validity and effectiveness of the classic theories in Gender Psychology, like Gender Schema Theories (Bem, 1981; Markus et al., 1982) and Gender Belief System (Deaux and Kite, 1987; Kite, 2001), in terms of the lack of empirical support to the expected link between the sexist attitudes and the traditional gender stereotypes. As noted in the first place by Spence (1985), it might be suggested that the consistency between role, stereotype and identity shouldn't necessarily be expected, according to

the last formulations on the fluidity of gender in the queer theory (Butler, 1990, 2004; Preciado, 2008) and transgender theory (Nagoshi et al., 2014). With this regard, the construction of gender is in constant evolution and such transformation is transversal to the components thereof but needs not affect all in the same way. Therefore, we could introduce alternative esthetic elements according to our gender and still maintain homophobic or male chauvinist attitudes. The influence of the social and political landmarks reached and the openness in terms of socially permitted manifestations, attitudes or behaviors are the grounds of a major process of change in Western societies (Nagoshi et al., 2012). In conclusion, in such a changing situation in terms of the sociocultural construction of gender, it is necessary to challenge the predictive capacity of static and old models or theories not acknowledging social changes or the fluidity of gender in our context.

DATA AVAILABILITY STATEMENT

All datasets generated for this study are included in the article/supplementary material.

REFERENCES

- Aguñiga, C., Sebastián, J., and Moreno, B. (1987). Androginia psicológica y flexibilidad comportamental. [Psychological androgyny and behavioral flexibility]. *Estud. Psicol.* 32, 13–44.
- American Psychological Association (2011). *Answer to Your Questions About Transgender People, Gender Identity, and Gender Expression*. Washington, DC: American Psychological Association.
- American Psychological Association (2015). Guidelines for psychological practice with transgender and gender nonconforming people. *Am. Psychol.* 70, 832–864. doi: 10.1037/a0039906
- Baber, K. M., and Tucker, C. J. (2006). The social roles questionnaire: a new approach to measuring attitudes toward gender. *Sex Roles* 54, 459–467. doi: 10.1007/s11199-006-9018-y
- Balarajan, M., Michelle, G., and Martin, M. (2011). *Monitoring Equality: Developing a Gender Identity Question*. London: Equality and Human Rights Commission.
- Baron, R. M., and Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: conceptual, strategic and statistical considerations. *J. Pers. Soc. Psychol.* 51, 1173–1182. doi: 10.1037//0022-3514.51.6.1173
- Beauvais, C., and Spence, J. T. (1987). Gender, prejudice, and categorization. *Sex Roles* 16, 89–100. doi: 10.1007/bf00302854
- Bem, S. L. (1972). Psychology looks at sex roles: Where have all the androgynous people gone? *Paper Presented at the U.C.L.A. Symposium on Sex Roles*.
- Bem, S. L. (1974). The measurement of psychological androgyny. *J. Consult. Clin. Psychol.* 42, 155–162.
- Bem, S. L. (1981). Gender schema theory: a cognitive account of sex typing. *Psychol. Rev.* 88, 354–364. doi: 10.1037/0033-295X.88.4.354
- Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychol. Bull.* 107, 238–246. doi: 10.1037//0033-2909.107.2.238
- Bentler, P. M. (1995). *EQS Structural Equations Program Manual*. Encino, CA: Multivariate Software, Inc.
- Bentler, P. M., and Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychol. Bull.* 88, 588–606. doi: 10.1037//0033-2909.88.3.588
- Berndt, T. J., and Heller, K. A. (1986). Gender stereotypes and social inferences: a developmental study. *J. Pers. Soc. Psychol.* 50, 889–898. doi: 10.1037//0022-3514.50.5.889
- Bonilla, A. (2010). Psicología, diferencias y desigualdades: límites y posibilidades de la perspectiva de género feminista. [Psychology, differences & inequalities: limits & possibilities of a feminist gender perspective]. *Quaderns de Psicologia* 12, 65–80.
- Butler, J. (1990). *Gender Trouble: Feminism and the Subversion of Identity*. New York, NY: Routledge.
- Butler, J. (2004). *Undoing Gender*. New York, NY: Routledge.
- Byrne, B. M. (1994). Burnout: testing for the validity, replication, and invariance of causal structure across elementary, intermediate, and secondary teachers. *Am. Educ. Res. J.* 31, 645–673. doi: 10.3102/00028312031003645
- Byrne, B. M. (2008). Testing for multigroup equivalence of a measuring instrument: a walk through the process. *Psicothema* 20, 872–882.
- Byrne, B. M., Shavelson, R. J., and Muthén, B. (1989). Testing for the equivalence of factor covariance and mean structures: the issue of partial measurement invariance. *Psychol. Bull.* 105, 456–466. doi: 10.1037//0033-2909.105.3.456
- Campbell, B., Schellenberg, E. G., and Senn, C. Y. (1997). Evaluating measures of contemporary sexism. *Psychol. Women Q.* 21, 89–101. doi: 10.1111/j.1471-6402.1997.tb00102.x
- Chen, F. F. (2008). What happens if we compare chopsticks with forks? The impact of making inappropriate comparisons in cross-cultural research. *J. Pers. Soc. Psychol.* 95, 1005–1018. doi: 10.1037/a0013193
- Cheung, G. W. (2008). Testing equivalence in the structure, means, and variances of higher-order constructs with structural equation modeling. *Organ. Res. Methods* 11, 593–613. doi: 10.1177/1094428106298973
- Cheung, G. W., and Rensvold, R. B. (2002). Evaluating goodness-of-fit indexes for testing measurement invariance. *Struct. Equ. Modeling* 9, 233–255. doi: 10.1097/NNR.0b013e3182544750
- Choi, N., and Fuqua, D. R. (2003). The structure of the bem sex-role inventory: a summary report of 23 validation studies. *Educ. Psychol. Meas.* 63, 872–887. doi: 10.1177/0013164403258235
- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences*, 2nd Edn. Hillsdale, NJ: Erlbaum.
- Corral, S., and Calvete, E. (2006). Evaluación de la violencia en las relaciones de pareja mediante las Escalas de Tácticas para Conflictos: Estructura factorial y diferencias de género en jóvenes. [Adaptation of the subtle and overt psychological abuse of women scale in clinical and community samples]. *Psicol. Conductual* 2, 215–234.
- Cowan, S. (2005). Gender is no substitute for sex. *Fem. Leg. Stud.* 13, 67–96.
- Cuadrado, I. (2003). ¿Emplean hombres y mujeres deferentes estilos de liderazgo? Análisis de la influencia de los estilos de liderazgo en el acceso a los puestos de

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by the Ethics Committee of the Autonomous University of Madrid. The patients/participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

RG-S and CA carried out the initial theoretical revision, the data analysis, and elaborated the discussion section. BA, MM, and MS-O were responsible for collection of the data and participated in the data analysis. JL and JM participated in the writing of the discussion and in the elaboration of the overall conclusion.

ACKNOWLEDGMENTS

The authors want to thank Alice H. Eagly for her orientations to made this manuscript and José Antonio García Sánchez and Tony Weston for their support in the translations.

- dirección. [Do women and men adopt different leadership styles? An analysis of the influence of leadership styles on access to managerial positions]. *Rev. Psicol. Soc.* 18, 283–307. doi: 10.1174/02134740322470864
- Deaux, K., and Kite, M. E. (1987). “Thinking about gender,” in *Analyzing Gender: A Handbook of Social Science Research*, eds B. B. Hess, and M. M. Ferree, (Newbury Park, CA: Sage), 92–117.
- Deaux, K., Kite, M. E., and Lewis, L. L. (1985). Clustering and gender schemata: an uncertain link. *Pers. Soc. Psychol. Bull.* 11, 387–397. doi: 10.1177/0146167285114005
- Deaux, K., and Lewis, L. L. (1984). The structure of gender stereotypes: Interrelationships among components and gender label. *J. Pers. Soc. Psychol.* 46, 991–1004. doi: 10.1037/0022-3514.46.5.991
- Eagly, A. H. (1987). *Sex Differences in Social Behavior: A Social-Role Interpretation*. New Jersey: Erlbaum.
- Eagly, A. H., and Chaiken, S. (2007). The advantages of an inclusive definition of attitude. *Soc. Cogn.* 25, 582–602. doi: 10.1521/soco.2007.25.5.582
- Eagly, A. H., Karau, S. J., and Makhijani, M. G. (1995). Gender and the effectiveness of leaders: a meta-analysis. *Psychol. Bull.* 117, 125–145. doi: 10.1037//0033-2909.117.1.125
- Eagly, A. H., and Wood, W. (1991). Explaining sex differences in social behavior: a meta-analytic perspective. *Pers. Soc. Psychol. Bull.* 17, 306–315. doi: 10.1177/0146167291173011
- Eagly, A. H., and Wood, W. (1999). The origins of sex differences in human behavior. Evolved dispositions versus social roles. *Am. Psychol.* 54, 408–423. doi: 10.1037/0003-066X.54.6.408
- Eagly, A. H., Wood, W., and Diekmann, A. B. (2000). “Social role theory of sex differences and similarities: a current appraisal,” in *The Developmental Social Psychology of Gender*, eds T. Eckes, and H. M. Trautner, (Mahwah, NJ: Erlbaum), 123–174.
- Fernández, J., and Coello, M. T. (2010). Do the BSRI and PAQ really measure masculinity and femininity? *Span. J. Psychol.* 12, 1000–1009. doi: 10.1017/s113874160000264x
- Frable, D. E., and Bem, S. L. (1985). If you are gender schematic, all members of the opposite sex look alike. *J. Pers. Soc. Psychol.* 49, 459–468. doi: 10.1037//0022-3514.49.2.459
- Garaigordobil, M., Martínez-Valderrey, V., and Aliri, J. (2013). Victimización, percepción de la violencia y conducta social. [Victimization, violence perception and social behavior]. *Infancia y Aprendizaje* 37, 102–116.
- García-Cueto, E., Rodríguez-Díaz, J., Bringas-Molleda, C., López-Cerezo, J., Páino-Quesada, S., and Rodríguez-Franco, L. (2015). Development of the gender role attitudes scale (GRAS) amongst young Spanish people. *Int. J. Clin. Health Psychol.* 15, 61–68. doi: 10.1016/j.ijchp.2014.10.004
- García-Dauder, S. (2005). *Psicología y Feminismo. Historia olvidada de mujeres pioneras en Psicología*. Madrid: Editorial Nancaea.
- Gino, F., Wilmoth, C., and Brooks, A. (2015). Compared to men, women view professional advancement as equally attainable, but less desirable. *Proc. Natl. Acad. Sci.* 112, 12354–12359. doi: 10.1073/pnas.1502567112
- Glick, P., and Fiske, S. T. (1996). The ambivalent sexism inventory: differentiating hostile and benevolent sexism. *J. Pers. Soc. Psychol.* 70, 491–512. doi: 10.1037//0022-3514.70.3.491
- Guimond, S. (2008). Psychological similarities and differences between women and men across cultures. *Soc. Pers. Psychol. Compass* 2, 494–510. doi: 10.1111/j.1751-9004.2007.00036.x
- Hambleton, R. K. (1994). Guidelines for adapting educational and psychological tests: a progress report. *Eur. J. Psychol. Assess.* 10, 229–244.
- Hambleton, R. K. (1996). “Adaptación de tests para su uso en diferentes idiomas y culturas: Fuentes de error, posibles soluciones y directrices prácticas. [Test adaptations for use in different languages and cultures: Sources of error, possible solutions and practical directions],” in *Psicometría*, ed. J. Muñiz, (Madrid: Universitat).
- Hammarstrom, A., and Annandale, E. (2012). A conceptual muddle: an empirical analysis of the use of “sex” and “gender” in “gender-specific medicine” journals. *PLoS One* 7:e34193. doi: 10.1371/journal.pone.0034193
- Heilman, M. E., and Eagly, A. H. (2008). Gender stereotypes are alive, well, and busy producing workplace discrimination. *Ind. and Organ. Psychol.* 1, 393–398. doi: 10.1111/j.1754-9434.2008.00072.x
- Hesse-Biber, S. N., and Leavy, P. (2008). *Handbook of Emergent Methods*. New York, NY: Guilford.
- Hoffman, R. M., and Borders, L. D. (2001). Twenty-five years after the Bem Sex-Role Inventory: a reassessment and new issues regarding classification variability. *Meas. Eval. Couns. Dev.* 34, 39–55. doi: 10.1080/07481756.2001.12069021
- Hooks, B. (2000). *Feminist Theory from Margin to Centre*. London: Pluto Press.
- IBM Corp. (2010). *IBM SPSS statistics for Windows, version 19.0*. Armonk, NY: IBM Corp.
- Instituto de la Mujer, (2016). *La mujer en cifras [Women in Numbers]*. Available at: <http://www.inmujer.gob.es/MujerCifras/Home.htm>
- Jöreskog, K. G., and Sörbom, D. (1996). *LISREL 8 User's Reference Guide*. Uppsala: Scientific Software International.
- Kite, M. E. (2001). “Changing times, changing gender roles: who do we want women and men to be?,” in *The handbook of the psychology of women and gender*, ed. R. Unger, (New York, NY: Wiley), 215–227.
- Lenney, E. (1991). “Sex roles: The measurement of masculinity, femininity, and androgyny,” in *Measures of Personality and Social Psychological Attitudes*, eds J. P. Robinson, P. R. Shaver, and L. S. Wrightsman, (San Diego, CA: Academic Press), 573–660. doi: 10.1016/b978-0-12-590241-0.50015-0
- López-Cepero, J., Rodríguez-Franco, L., Rodríguez-Díaz, F. J., and Bringas, C. (2013). Validación de la versión corta del social roles questionnaire (SRQ-R) con una muestra adolescente y juvenil española. [Validation of the short version of social roles questionnaire (SRQ-R) with a adolescent and youth Spanish sample]. *Revista Electrónica de Metodología Aplicada* 18, 1–16.
- Markus, H., Crane, M., Berstein, S., and Siladi, M. (1982). Self-schemas and gender. *J. Pers. Soc. Psychol.* 42, 38–50.
- Mateo, M. A., and Fernández, J. (1991). La dimensionalidad de los conceptos de masculinidad y feminidad [The dimensionality of the concepts of masculinity and femininity]. *Investigaciones Psicológicas* 9, 95–116.
- Moya, M., Glick, P., Expósito, F., De Lemus, S., and Hart, J. (2007). It's for your good: benevolent sexism and women's reactions to protectively justified restrictions. *Pers. Soc. Psychol. Bull.* 23, 1421–1434.
- Muñiz, J., Elosua, P., and Hambleton, R. K. (2013). Directrices para la traducción y adaptación de los tests: Segunda edición. [Guidelines for the translation and adaptation of tests: Second edition]. *Psicothema* 25, 151–157.
- Nagoshi, J. L., Brzuzy, S., and Terrell, H. K. (2012). Deconstructing the complex perceptions of gender roles, gender identity, and sexual orientation among transgender individuals. *Fem. Psychol.* 22:405. doi: 10.1177/0959353512461929
- Nagoshi, J. L., Nagoshi, C. T., and Brzuzy, S. (2014). *Gender and Sexual Identity: Transcending Feminist and Queer Theory*. New York, NY: Springer.
- Ogletree, S. M. (2015). Gender role attitudes and expectations for marriage. *J. Res. Women Gen.* 5, 71–82.
- Orue, I., Calvete, E., and Gámez-Guadix, M. (2016). Gender moderates the association between psychopathic traits and aggressive behavior in adolescents. *Pers. Individ. Dif.* 94, 266–271. doi: 10.1016/j.paid.2016.01.043
- Parry, D. C. (2014). My transformative desires: enacting feminist social justice leisure research. *Leis. Sci.* 36, 349–364. doi: 10.1080/01490400.2014.916976
- Payne, T. J., Connor, J. M., and Colletti, G. (1987). Gender-based schematic processing: an empirical investigation and reevaluation. *J. Pers. Soc. Psychol.* 52, 937–945. doi: 10.1037/0022-3514.52.5.937
- Preciado, P. B. (2008). *Testo Yonqui*. Barcelona: Espasa Calpe.
- Pryzgod, J., and Chrisler, J. C. (2000). Definitions of gender and sex. *Sex Roles* 43, 553–569.
- Ridgeway, C. L., and Bourq, C. (2004). “Gender as status: an expectation states theory approach,” in *The Psychology of Gender*, 2nd Edn, eds A. H. Eagly, A. E. Beall, and R. J. Sternberg, (New York, NY: Guilford Press), 217–241.
- Rodríguez, Y., Lameiras, M., Carrera, M. V., and Faílde, J. M. (2010). Evaluación de las actitudes sexistas en estudiantes españoles/as de educación secundaria. [Evaluation of sexist attitudes in Spanish secondary school students]. *Psicología* 4, 11–24.
- Satorra, A., and Bentler, P. (2001). A scaled difference chi-square test statistic for moment structure analysis. *Psychometrika* 66, 507–514. doi: 10.1007/bf02296192
- Sibley, C. G., Wilson, M. S., and Duckitt, J. (2007). Antecedents of men's hostile and benevolent sexism: the dual roles of social dominance orientation and right-wing authoritarianism. *Pers. Soc. Psychol. Bull.* 33, 160–172.

- Silván-Ferrero, M. P., and Bustillos, A. (2007). Adaptación de la escala de orientación a la dominancia social al castellano: validación de la dominancia grupal y la oposición a la igualdad como factores subyacentes. [Adaptation of the social dominance orientation scale into spanish: validation of group-based dominance and opposition to equality as underlying factors]. *Rev. Psicol. Soc.* 22, 3–15. doi: 10.1174/021347407779697485
- Smiler, A. P., and Epstein, M. (2010). “Measuring gender: options and issues,” in *Handbook of Gender Research in Psychology*, eds J. C. Chrisler, and D. R. McCreary, (New York, NY: Springer), 133–157. doi: 10.1007/978-1-4419-1465-1_7
- Spence, J. T. (1985). “Gender identity and its implications for the concepts of masculinity and femininity,” in *Nebraska Symposium on Motivation: Psychology of Gender*, ed. T. B. Sonderegger, (Lincoln: University of Nebraska Press), 59–96.
- Spence, J. T., and Helmreich, R. (1978). *Masculinity and Femininity: Their Psychological Dimensions, Correlates, and Antecedents*. Austin, TX: University of Texas Press.
- Spence, J. T., Helmreich, R., and Stapp, J. (1975). Ratings of self and peers on sex role attributes and their relation to self-esteem and conceptions of masculinity and femininity. *J. Pers. Soc. Psychol.* 32, 29–39. doi: 10.1037/h0076857
- Spence, J. T., and Helmreich, R. L. (1972). The attitudes toward women scale: an objective instrument to measure attitudes toward the rights and roles of women in contemporary society. *JSAS Catalog Select. Doc. Psychol.* 2:66.
- Spence, J. T., Helmreich, R. L., and Swain, L. L. (1980). The male-female relations questionnaire: A self-report inventory of sex-role behaviors and preferences and its relationships to masculine and feminine personality traits, sex role attitudes and other measures. *JSAS Catalog Select. Doc. Psychol.* 10:87.
- Steiger, J. H. (1990). Structural model evaluation and modification: an interval estimation approach. *Multiv. Behav. Res.* 25, 173–180. doi: 10.1207/s15327906mbr2502_4
- Swim, J. K., Aikin, K. J., Hall, W. S., and Hunter, B. A. (1995). Sexism and racism: old-fashioned and modern prejudices. *J. Pers. Soc. Psychol.* 68, 199–214. doi: 10.1037//0022-3514.68.2.199
- Swim, J. K., and Cohen, L. L. (1997). Overt, covert, and subtle sexism: a comparison between the attitudes toward women and modern sexism scales. *Psychol. Women Q.* 21, 103–118. doi: 10.1111/j.1471-6402.1997.tb0103.x
- Twenge, J. M. (1997). Changes in masculine and feminine traits over time: a meta-analysis. *Sex Roles* 36, 305–325. doi: 10.1007/bf02766650
- United States Bureau of Labor Statistics, (2016). *Economic News Release: American Time Use Survey Summary*. Available at: <http://www.bls.gov/news.release/atus.nr0.htm> (accessed June 19, 2019).
- Westbrook, L., and Saperstein, A. (2015). New categories are not enough: rethinking the measurement of sex and gender in social surveys. *Gend. Soc.* 29, 534–560. doi: 10.1177/0891243215584758
- Wickes, R., and Emmison, M. (2007). They are all doing gender but are they all passing? *Sociol. Rev.* 55, 311–330. doi: 10.1111/j.1467-954x.2007.00707.x
- Wilkinson, L., and Task Force on Statistical Inference, American Psychological Association, Science Directorate, (1999). Statistical methods in psychology journals: guidelines and explanations. *Am. Psychol.* 54, 594–604. doi: 10.1037/0003-066x.54.8.594
- Williams, J. E., and Best, D. L. (1990). *Sex and Psyche: Gender and Self Viewed Cross-Culturally*. Newbury Park, CA: Sage.
- Wood, W., and Eagly, A. H. (2002). A cross-cultural analysis of the behavior of women and men: implications for the origins of sex differences. *Psychol. Bull.* 128, 699–727. doi: 10.1037//0033-2909.128.5.699
- Wood, W., and Eagly, A. H. (2009). “Gender identity,” in *Handbook of Individual Differences in Social Behavior*, eds M. Leary, and R. Hoyle, (New York, NY: Guilford), 109–125.
- Wood, W., and Eagly, A. H. (2010). “Gender,” in *Handbook of Social Psychology*, 5th Edn, Vol. 1, eds S. T. Fiske, D. T. Gilbert, and G. Lindzey, (Hoboken: Wiley), 629–667.
- Wood, W., and Eagly, A. H. (2012). Biosocial construction of sex differences and similarities in behavior. *Adv. Exp. Soc. Psychol.* 46, 55–123. doi: 10.1016/B978-0-12-394281-4.00002-7
- Zosuls, K. M., Miller, C. F., Ruble, D. N., Martin, C. L., and Fabes, R. A. (2011). Gender development research in sex roles: historical trends and future directions. *Sex Roles* 64, 826–842.
- Zucker, A. N., and Bay-Cheng, L. Y. (2010). Minding the gap between feminist identity and attitudes: the behavioral and ideological divide between feminists and non-labelers. *J. Pers.* 78, 1895–1924. doi: 10.1111/j.1467-6494.2010.00673.x

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright © 2019 García-Sánchez, Almendros, Aramayona, Martín, Soria-Oliver, López and Martínez. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.



The Passive Origin of the Institutionalization of Power Inequality in the Meaning/Experience of Womanhood in Igboland

Dominic Ekweariri*

Department of Philosophy, Bergische Universität, Wuppertal, Germany

OPEN ACCESS

Edited by:

William Outhwaite,
Newcastle University, United Kingdom

Reviewed by:

Dawn Sarah Jones,
Glyndŵr University, United Kingdom
Carmen Martínez,
University of Murcia, Spain

*Correspondence:

Dominic Ekweariri
dominic.ekweariri@uni-wuppertal.de

Specialty section:

This article was submitted to
Gender, Sex and Sexualities,
a section of the journal
Frontiers in Sociology

Received: 19 August 2019

Accepted: 10 February 2020

Published: 27 February 2020

Citation:

Ekweariri D (2020) The Passive Origin
of the Institutionalization of Power
Inequality in the Meaning/Experience
of Womanhood in Igboland.
Front. Sociol. 5:8.
doi: 10.3389/fsoc.2020.00008

This study, which analyzes the meaning and experience of womanhood in Igbo land, reveals a power inequality, captured by the depiction of women as the property of men. Though most of the intuitions found in post-structuralism might be confirmed in our analysis (e.g., that discourse produces the subjects and that language operates alongside power and social control), my greatest motivation in this essay is different: it proposes that power inequality as evident in the depictions of women and their oppressive subordinating consequences therein are *not consciously intended* by all classes of agents while acting in accordance with normal rules and accepted practice; an aspect that is usually lacking in other accounts of the institutionalization of social realities where dominant discourse, collective intentionality etc., are usually emphasized. Whence the questions: What is then the origin of unequal power distribution among the sexes? And what is the origin of unintended but oppressive images and subordinating depictions of women as the property and unequal of men? Inspired by Jean-Paul Sartre, I make an elaborate use of passive synthesis as developed by Husserl's analysis of perceptual objects and phenomenological perception of time consciousness, and as found in Merleau-Ponty's habituation to respond to these questions.

Keywords: power inequality, women in Igbo land, unintended consequences, passive synthesis, collective intentionality, Husserl, Merleau Ponty

INTRODUCTION

There appears to be a stark polarity of spheres in ethnological findings concerning Igbo¹ men and women. Whereas, men are given to the public² spheres, women are given to the private and natural.

¹The Igbo are located in the South—East of Nigeria, West Africa extending to parts of mid-western and delta regions of Nigeria. Their territory cuts across the Equatorial forest in the South and the Savanna in the North, and both east and west of the Niger River, which is a very important physical mark in this regard. The east of Igbo land includes the Cross River Igbo (Edda, Abam, and Aro) and the west embraces parts of Aboh, Asaba, and Agbor in the former Bendel state of Nigeria. According to Ihuagwu's (2011, p. 58) use of the 2006 Census Estimate, "Igbo land has over 30 million people with a density ranging from 1,000 per sq. mile in high density areas and 350 per sq. mile in low density. It could be the densest area in Africa after the Nile valley."

²In socio-political milieu of the sub-lineage or extended family, the lineage-assembly, and the village group assembly/council, men occupy an outstanding representative position (they bear the symbol of authority and justice, the *ofo*, handed down by the ancestors) (Falola, 2005, p. 161). On another note, Igbo traditional religion is predominantly saturated with masculinity. Its concept of God, *Chukwu* or *Chineke* figures a dominant androgynous "God." The qualities of *Chukwu* and *Chineke* portray

This distinction determines the way in which the two sexes are *permitted to, enabled by, obligated to or restrained from* the public or the private³. The findings motivate the questions: What explains the inequality of *enablement and restraint* occupied by both men and women in such a society? Since it seems intrinsic to womanhood in that society to be more restrained but less permitted, we are motivated to ask these questions: “What does it mean to be a woman and what is the experience of being woman in Igbo land?”

To begin with, some ethnologists have pointed out that biological differences between the sexes do not provide a universal basis for socially defining what it means to be “woman” or “man.” They rather suggest that “woman,” like its correlate structure, “man,” is an empirical category and therefore investigable—although in specific contexts of place, time, culture, for according to Moore the “*image, attributes, activities, and appropriate behavior* associated with women are always culturally and historically specific” (Moore, 1988, p. 7; *My Italics*). The last question posed above is geared toward digging up such *images and representations* of women in Igbo land.

In continental critics of institutionalization, in Marxism, Frankfurt school critical theory, phenomenological existentialism (Fleming, 1989, p. 120), and most importantly in post-structuralism etc., substantial work has been done, offering a critique of institutions where discourses are characterized by an institutionalization of power. Part of this is an intense discrediting of the male-saturated discourses of feminism.

the cultural cliché of a sole generating and providential prerogative of an Igbo “father.” Of all the numerous local deities and personal spirits in the Igbo religion and cosmology only a scanty few are female, among which are *ala*, the water goddesses or deities such as *agbara mmiri* and *umu mmiri* and in some literatures *mami wota*. Apart from these few deities which are often associated with either fertility or some negative forces, the others, such as *Ahianjoku*, *Amadioha*, *Agwu Ishi*, *Ofo*, *Ikenga*, *Agbara*, *Arusi*, etc., are vested with a certain dignifying nobility and authoritative finality in their actions and dealings with humans. To experience these forces is nothing less than experiencing the “self-sufficiency” and “assertiveness” of a typical Igbo man. The ancestors who occupy a very important place in Igbo religion are supposed to include every dead member of the family. But only the masculine ancestors are emphasized and highly revered. In the pouring out of libations one hardly hears the mention of a female ancestor, except in the general coinage: “*ndi ichie bia were nu oji . . . ndi ichie bia nuru nu mmanyi*” and so on, which after all far from being all inclusive is an appeal: “*Oh ancestors come and take cola nut. . . Oh ancestors come and drink wine.*” In most parts of Igbo land the word *Ichie* (where this refers to a title) is used exclusively for the male. Most African traditional religions include women in their priesthood; but among the Igbo a female priest is hardly mentioned. It is the prerogative of the male. The *dibia* (native doctors) and the *ohu uzo* (seers) are predominantly male. They stand for all (Iheanacho, 2012).

³This distinction, not of class, essentially dates back not only to Marxism as pointed out by some feminists such as Mary O’Brien and Allison M. Jaggar (who suspected Marx was himself guilty of the liberal theory which he had tried to displace: “The suggestion that Marxism, in its characteristic separation of public and private life, shares important features of the liberal theory it has sought to dislodge has also been suggested by other feminists” Fleming, 1989, p. 121), but also to the social and political structures that developed in the West in the sixteenth and seventeenth centuries (Fleming, 1989, p. 121). Benhabib (1986, p. 405) has described this sort of normative categorization of men and women in terms of public and private as an oppressive structure. For her it is “an essential way in which social reality is organized, symbolically divided, and lived through experientially.” In *Feminism as Critique* (Benhabib and Cornell, 1987, p. 32), Benhabib and Cornell make direct reference to Jürgen Habermas as one of the best analysts of the institutional division between “system and lifeworld” useful to feminists, where the spheres of public and private are well contextualised.

Most importantly we also find in these modern theories a deconstruction of the meaning of women. In such cases, such as found in linguistic requirements for institutions, “action theory” and “the phenomenological theory of ‘acts’ espoused by Edmund Husserl, Maurice Merleau-Ponty and George Herbert Mead,” social agents are said to constitute “social reality through language, gesture and all manner of symbolic social sign” (Butler, 1988, p. 519). These claims are substantiated with the claims of feminists such as Simone de Beauvoir who has always held as a central theme the fact that “woman” always carries the burden of a historical meaning through the conventions of an institution, i.e., culture. Her statement “one is not born, but, rather, becomes a woman” shows that what is called gender, with reference to the woman, is just “a performative accomplishment compelled by social sanctions and taboos” (Butler, 1988, p. 520). It can be understood like Merleau-Ponty’s reflection in the *Phenomenology of Perception* in which “the body is said to be ‘an historical idea’ rather than ‘a natural species’” (Butler, 1988, p. 520). In brief, all these mean that the conception of the woman (gender) is a cultural interpretation of the natural fact of her sex (biology). In order words, these institutionally critical philosophical positions say that the term “woman” is a constructed social and cultural reality.

Just as in most postmodern philosophies, especially their variants as found in Foucault, Derrida and Lyotard, there is strong aversion to normative positions grounded in privileged ethical claims because for these the normative positions or privileged discourses can fool us into “conventional meanings and modes of being” (Barett, 2005, p. 1). For instance Lyotard defends the “incredulities toward metanarratives” (Lyotard, 1979/1993, p. XIV). In line with the question of the meaning of women posed above, most poststructuralists will claim that meaning and identity are rooted in language.⁴ This will make all meanings simply provisional and flexible. It is the society that will determine the regimes of meaning and truth by determining what is acceptable and what is not. Since it is discourse that produces the subjects and since it is language that reveals meaning, discourse will involve an analysis of power.

In our analysis of the meaning and experience of being woman in Igbo land, we shall see how via *constitutive rules* and *collective intentionality*, women are *assigned a function*. In this move *linguistic devices* will play an essential role in the construction of the institutional fact of being woman. Though, most of the intuition found in post-structuralism might be confirmed in our analysis (for instance that discourse produces the subjects and that language operates alongside power⁵ and social control), my motivation in this essay is

⁴Poststructural theorizing focuses “on how language works, in whose and what interests, on what cultural sites and why” (Kelly, 1997, p. 19). It is discourse that produces subjects; it is language that reveals meaning. This will make discourse an analysis of power.

⁵Carrie Paechter in her essay “Using Post-structural Ideas in Gender Theory Research” shows the categories of masculinity and femininity are saturated with power and knowledge relations and that they act upon individuals in particular societies. She writes: “What this means is that how individual males and females behave involves an enactment of their gender roles, as interpreted by them in their social context and as constrained by their experiences of their bodies. What we need then to consider is *how discourses of masculinity and femininity*

different: it proposes that power inequality as evident in the depictions of women and their oppressive subordinating consequences therein are *not consciously intended* by all classes of agents while acting in accordance with normal rules and accepted practice; an aspect that is usually lacking in other accounts of the institutionalization of social realities where dominant discourse, collective intentionality etc., are usually emphasized. Besides it argues for the phenomenological account of passive synthesis as capable of responding to the problem of the origin of power inequality and the status function of *nwunye/nwanyi* (wife/woman).

To achieve this goal, the paper is divided into three main parts: The first part is dedicated to the search for a proper definition/experience of the institutional fact of woman in the specific context of a traditional Igbo society. This part will reveal a structure of power that restrains⁶ women (whether married or unmarried) from certain rights and control over their own lives. Far from just being a mere case of exclusion from public life⁷ and being bound to their domestic and reproductive roles, our analysis of the experience of being woman in Igbo land will expose how the woman is robbed of an individuality of her own from the patriarchal structures that *depict* her as *a property*, thus building up a culture which “damages, destroys, cripples and hinders one from being a human person” (Conrad and Michalik, 1999, p. 438). The second part is concerned with the idea of the institutionalization of power inequality—because the woman is represented as the man’s property—which we shall understand as a case of *unintended consequence*. In the last part we shall argue that the *unintended images* of women can be explained by the phenomenological theory of passive synthesis. Note that by unintended, we mean that these images do not come under a conscious reflection in the active sense.

INSTITUTIONAL CONSTRUCTION OF THE MEANING OF WOMAN IN TRADITIONAL IGBO SOCIETY

Three elements have been proposed as necessary to account for social realities, viz: *assignment of functions*,⁸ *collective*

are constructed and maintained, and how they support and are supported by power/knowledge relations” (Paechter, 2001, p. 6 *My Italics*).

⁶This idea is found in Searle (2007, p. 21) who had confessed: “In The Construction of Social Reality, I pointed out that the main purpose of creating institutional facts is to increase human power, and that the types of power in question are deontic powers and that these bottom out in individuals”. Elsewhere he (Searle, 2010, p. 91) sees these deontic powers as the truest test of whether a phenomenon is an institution or not, and for him these powers include, rights, duties, requirements and authorizations.

⁷It is fascinating how democratic growth brings with it equal rights for all, which are not yet found in the traditional society. Despite traditional restriction and stereotypes, it increasingly tends to offer women and their male counterparts equal opportunities, such as in education. Contrariwise the gaps of inequality are still wide: women are almost tabooed out of the public spheres in the traditional Igbo society, but bound to maternity and a domestic life, which is, for us, a means of control, restraint from the dominant group that construct them.

⁸Here a core human ability of imposing functions on natural objects with a view to performing the specific functions assigned to them is recognized. These functions are never intrinsic to the objects but are extrinsically assigned, thus

*intentionality*⁹ and *constitutive rules*.¹⁰ The first and the third appear immediately visible in the Igbo social reality to the extent that they prescribe the representation of something other than the natural objects; the second will become evident later. In traditional Igbo society, the fact of being *nne* or *mgbo* (female) *eo ipso* is only negative, as we shall see later. *Being*¹¹ is in view of a relationality so that a certain psychology would not ascribe the female her own full, autonomous personality. Instead she requires something more *in order to be*. One grasps here a literal devaluation that is at stake, when one compares the biological feminine (*nne*) with the masculine (*oke*) opposite.

Accordingly mankind/society (*Oha na eze*) is to be seen as a male (*Oke*) so that the man represents simultaneously the positive and the negative poles of a current, just in the same way that the French word *les hommes*, a tag for “man,” simultaneously describes “mankind,” because the specific meaning of “*nwoke*” (*man*—as distinguished from mankind) is absorbed in the generic “*oha na eze*” (man—like in the English *mankind*) the same way the specific meaning of man in the latin “*vir*” is

observer- related, by which is meant according to the purpose and interests of the users—“agentive”; they add a vocabulary of values to their objects—the normative component. In some instances it could be that the agentive functions assigned to objects are that of representing something else (Searle, 1995, p. 21) or something other than themselves (symbolism). The functions assigned could be intended or manifest. An example is a piece of paper assigned the function of “euro” (money).

⁹The second important feature is the term “Collective Intentionality” which signals the capacity for cooperative behaviour, in addition to sharing states such as beliefs, desires, and intentions. An example of a shared intentionality will be that I (as a pianist in an orchestra) play my part in our performance of the symphony; this example is obviously different from an accidental synchronization of parts. The reductionism of ‘We-intentionality’ to an ‘I-intentionality’ in a bid to mark the difference between singular and collective intentionality is untenable. This reductionism is unable to sum up to a sense of collectivity which itself is “a sense of doing (wanting, believing, etc.) something together; and the individual intentionality that each person has is derived from the collective intentionality that they share” (Searle, 1995, p. 23/25). An example is that representatives of the EU countries met to agree that this piece of paper should serve as Euro notes (money).

¹⁰*Constitutive rules* can be distinguished from *regulative rules*. *Regulative rules* (like that of driving on the right—hand side of the road) merely regulates; but constitutive rules create the possibility of certain activities having the form “X counts as Y in context C,” (where X names the physical features of the object; Y names something more than this physical object; C depicts the context). Institutional facts (e.g., property, woman, money, husband, or wife) exist within systems of these constitutive rules, and are constituted by application of the formula above. For instance, performing such and such speech acts on this man and this woman standing here (the X term) in front of a presiding official (the C term) the two now counts as married (the Y term).

¹¹One is not just something; one is someone only in relationships. For a man, being such is sufficient for being someone. It is not same for a female. Some proverbs would drive this home, such as: “*Nwoke kuru nwanyi ihe agaghi isi okuru mmadu ihe*” (literally translated a man that beats up a woman has beaten up no one—no human person). More so, the differences evident in gender-based names make this sort of discrimination, as documented in “*Okeke*” and “*Okafo*” (Male specific); “*Mgbeke*” and “*Mgbeafor*” (female specific) document this. On closer scrutiny it becomes evident that males were named in association with great deities like *Ala* (earth deity), *Anyanwu* (sun deity), concepts of greatness like *Duru* (Great man of nobility), or nobility like *eze* (king), revered titles like *Nze na ozo*, religious objects *ofo*, *Ogu* (symbol of authority, innocence, justice), in terms of social entity like *mba* (a people), *ibe* (fellow), whereas, women were named in association with dainty issues, virtuous qualities such as *Mma* (beauty), *Akudiya* (wealth of her husband), *Anuri* (Happiness), *Ola* (precious ornament), *Ure* (conduct worthy of emulation), etc. (Onukawa, 2000, p. 107–108) These system of naming women seem to suggest that women are being instrumentalized for other purposes.

absorbed in the generic “homo” (mankind); contrariwise the female (*nwanyi*) is insufficient,¹² whereas “*nwoko*” is (Onukawa, 2000). Accordingly the female’s body imprisons and bounds her to herself; the man thinks of his body only in terms of mastery of, and direct relationship to the world. All these make *being* equivalent to man; every other existent is only *on the process of becoming*, and can only be so derived from him, in the same way that the ancients derived geographical orientation from sunrise and sunset. De Beauvoir’s insight is *ad rem* to the Igbo situation being addressed: “Mankind is masculine, and the man defines the woman not as such but with reference to himself; she is not seen as an autonomous being” (My Translation¹³). From this basic premise, a second is derived, namely: the feminine is perceived as “a relative being.” Relative to what?

Since just being *nne* is in itself insufficient, she has no place within the traditional socio-cultural framework of the Igbo. In order to overcome this constraint, the *Constitutive Rule* of the form “X counts as Y in C,” as defined in the footnotes above, has to hold sway. In simple language, she who is the X (*nne*) is now given a new status Y (*nwanyi/nwunye*¹⁴—woman/wife) through a Context (*nwoke*—the man, representative of *oha na eze*) that names something more than what the X as a mere biological condition could afford. Later we shall explain how through the bride price ownership of her is transferred by a group of men to the *di* (master, husband)—a vivid symbolization of collective intentionality seen as an agreement and imposition of Y. In the above process, the body of man is meaningful in itself even without the woman, whereas the later seems wanting in significance, as though the woman *could not think of herself without the man*. In traditional Igbo society, the woman is therefore what the man has made of her. Thus the common parlance, “*mma/ugwu nwanyi wu di ye*” (Literal translation: “the beauty of the woman is the man, her husband”) (Mmadike, 2014). In the end, one finds it extremely difficult to define the “woman” (now *nwunye* meaning wife) or assign worth to her, when one departs from a specific referential context of the man, and in the institution of marriage. Whereas he is absolute subject, she on the other hand becomes an object belonging to him (his property). This new status function of the woman Y, the property of the man, is designated by the concept wife (*nwunye*). Finally here, whereas an objective existence is ascribed to the man as such, it is only so by extension to the woman. In order words, a woman cannot be without a man, her foremost substance, if she is to have some place in the *oha na eze*. The renowned Igbo novelist and self-ascribed feminist, Chimamanda Ngozi Adichie painted this traditional psychology in the compelling lines of her novel through Kambili’s mother: “A woman with ... no husband, what is that? ... a husband crowns a woman’s life” Adichie (2006, p. 75).

¹²Onukawa’s survey of Igbo Gender Naming implicitly pointed out this difference, whereby women were named with reference to a sort of derivable personal and small god (*chi*) and men according to a sovereign, self-sufficient and great God (*Chukwu*). We abstain from the details (Onukawa, 2000).

¹³“Die Menschheit ist männlich, und der Mann definiert die Frau nicht als solche, sondern im Vergleich zu sich selbst: sie wird nicht als autonomes Wesen angesehen.” De Beauvoir (1951, p. 12).

¹⁴Both terms make meaning only in a relationality. *Nwanyi* literally meaning “our child” (where our: anyi and child: nwa) whereas *Nwunye* follows almost always a possessive adjective: *nwuye m* (my wife); *nwunye anyi* (our wife).

The move from X (*nne*) to Y (*nwanyi/nwunye*) “is *eo ipso* a linguistic move” (Searle, 1995, p. 63). So “language is essentially constitutive of institutional reality” (Searle, 1995, p. 59). This means that institutions like a specific culture must be able to contain linguistic elements—symbolic devices expressing things beyond themselves—of the facts within that very institution. Now the challenge is: what linguistic representations are there to convey the new status function of the *nwunye* (wife) as the man’s object or property?

On that count, the Igbo language is rich with such symbolic devices. After she is married, she drops her maiden name and assumes a new name which will be given her by her *di* (husband). We hear of such names: “*ure di ya*,” “*Aku di ya*” (“the joy of the husband,” “the wealth of her husband”). In each case her name makes reference to the husband. This way of naming women in Igbo land has almost faded out into extinction, but it is yet preserved in other forms. When she preserves her maiden name after marriage, as is presently common, it is to be distinguished from those of other women. It is her husband’s name that specifies what name is being referred to. In Ndiegbelu Umuemeri Ogwu, it is till date a commonly held custom that women are often addressed and/or distinguished from other women by their husbands’ names suffixed to theirs. Thus, such designations as *Angela Amodu*, *Maria Gini*, *Maria Bonu* are familiar instances (whereas *Amodu* is the husband of *Angela*; *Bonu* and *Gini* show that this *Maria* is the wife of *Bonu* and this other is the wife of *Gini*) (Ekweariri, 2011). A more common practice is to subsume the woman in the man, in the sense of a “one body theory” (Uchem, 2001, p. 116), by which Christianization and Colonization of Africa from “Christian Europe” reinforced the traditional habits. An example here is: “*Mazi na Oriaku Uche Anyanwu*,” where the woman is only identified *in terms of* the man who is Uche Anyanwu. The subsuming of the woman within the man’s identity is not restricted only to “name-calling,” but also stretches into properties. The woman’s properties, if at all, not only become those of the man (Ekweariri, 2011), but also children begotten by her outside wedlock.

The pattern of thinking by which the woman belongs to the man (Nwanesi, 2006, p. 26–28) is corroborated in Henderson’s linguistic survey of the Igbo words for husband and wife. Accordingly the Igbo word for husband, *di*, means one in a position of authority, command and high degree of responsibility (he exercises headship and lordship over a house), or one possessing a great professionalism in a given area. An example is *Di ji* (yam expert). Muonwe’s (2011, p. 13) reading of Henderson makes a further list of words with *di* prefixed to them, such as *di-ogu* (master of wrestling), *diochi* (an expert in palm-wine tapping), *dimkpa* (a very great man). Whereas, all the Igbo linguistic words for *di* (husband) denotes a certain form of lordship/greatness, that of the woman *nwunye* (wife) contains in it a reference to the head of the house, to whom she is subordinate. This is how the requirement of *linguistic devices* is here satisfied, by which speech actions are predominant.

So far we have tried to decipher the meaning of women in traditional Igbo society, with the result that the woman is a relative being, relative to the man without whom she has no identity. The analysis culminated in the idea of the *woman as*

a property. This apparent claim has to be pursued further in the four different traditional attitudes below to make clearer the dialectic of unequal power distribution between men and women, in terms of how they are being *enabled, obligated, permitted and authorized*. After we have derived the *theoretical meaning* of woman in Igbo land, it is in the following part that the *experience of being woman* in Igbo land will begin to emerge.

Preference for Male as Against Female Children

There is little regard for the female in Igbo land when viewed from the optic of an almost idolatrous crave for male children. Such a preference for the male child is functional, as is evident in the connection between death and fertility, by which living men do anything under human power in order to receive a befitting burial, a feat which can be thoroughly achieved by a promising male child. An Igbo proverb contains a male-child's (the first male child—Opara) traditional duty of burying his father: "*Onye aka ruru ya lie nna ya owughi opara gburu*": literally an appeal to any of the male children of the man to bury their father if they were well to do. The *Opara* must not be waited for since he is not the one that is responsible for the father's death (Onwudufor, 2015, p. 56). The more children a man had, the more he was assured of a proper and befitting funeral at death. A befitting burial is necessary to secure peace in the land of the ancestors and a key to the attainment of the title of an ancestor. Only a male child is authorized to pour libations and offer sacrifices which were believed to placate the dead and keep them at peace. Besides, the ancestral lineage faded into extinction if there was no male child to immortalize his father and continue his name. Thus, the masculine names *Ahamefule* (may my name not be lost), *Obiechile* or *Amaechile* (May my home or compound not go into extinction), *Ahamdi* (My name still exists), are prayerful supplications made to one's *chi* (a personal 'god') to spare him the wrath of any extinction. Also is the need to preserve and secure one's ancestral properties, which only male children could realize. Only men could become holders of the *ofo* (the symbol of authority and justice), represent the family in both the spiritual duties of offering sacrifices to the family deities, and perform the very important ritual of the kola nut (Ekweariri, 2011; Iheanacho, 2012).

The begetting of a male child does not only serve the man; the woman's status in the family and society becomes permanent and she herself is filled with joy because of the respect and the status which her male child acquires for her, a status she would never have achieved with the birth of a female child and worst still with barrenness.

The birth of a female child or especially chains of female children was a source of worry for the family; it was like a scourge and curse to the woman and family. Her husband castigated her for giving birth to "good-for-nothing-children." Besides, the girl child is conditioned to accept subordination as her lot. It begins in the homes where the distribution of household chores is made to favor the male child, and place the girl child as the servant of her brothers. As Nkachukwu lamented, "Boys are allowed to play all day and girls are held down with domestic

work" (Uchem, 2001, p. 94). She would later be rewarded by being married (Thus a famous Igbo historian writes: "that when a woman outgrows the question 'whose daughter is she, people would ask, 'whose wife is she?'" (Amadiume, 1987, p. 69) if she imbibed those qualities which men have prescribed for future wives: obedience, respect, servitude and humility. She would be punished by the absence of suitors if she failed to imbibe these qualities. She learns early that the man and children are her goals, that the man is her master and could do literally all he wanted including that of taking other wives. For Okoye, this belittling of women even shows itself in cases of bailing out a prisoner in which "a female corporate manager or top executive is often asked by brash policemen to go and get a man, even if he is the lowest male in the employ, such as her gardener, to perform this function on her behalf" (Okoye, 1995, p. 4) as if she were not human enough.

The Biological and Domestic Values of Women in Igbo Land

Whereas, the socio-political and cultic spheres in Igbo land are male-saturated, responsibility and service in the man's homes were the exclusive reserve of women. As custodians of the man's home, her primary way of serving it was through child bearing (Entwistle and Coles, 1990, p. 266), and a failure to do so was punishable by social ostracism. Among the Igbo, a woman's primary goal in marriage is to service the ancestral line of the man.

There was no gainsaying the fact how important the child (especially the male child) is to the man in traditional Igbo society. This same importance appears to be a burden for the woman, who lost all respect, unless she proved herself to be fertile. The onus of proof was primarily on the woman. First to be fulfilled as a woman, not only marriage is necessary but also begetting a child for the husband. Again in traditional Igbo society, the child is important to the woman because it secures for her a home and permanent residence within the family.

Having many children implied an increased income for the man since they assisted in farmlands, in trade and the professions of their parents, to bolster the wealth of their families. Whereas, the farmland had men as the CEOs, women and children were sources of labor and manpower (Ekweariri, 2011). It is therefore not surprising that such festivities/rites as *igbu eghu ukwu* (reserved only for women who gave birth to ten children or more) or *ile omugwo* (a special rehabilitation of the woman after childbirth) developed in this culture in order to celebrate fertility. Together with their prerogative of nursing and bringing up the children, Igbo women, as wives and mothers, would be seen as shouldering great responsibility in domestic functions.

The Bride Price and the Subordination of the Woman

Marriage in Igbo land is not just an isolated affair between two lovers; it involves the whole community, the extended family, the kindred, and the special role of the *ama ala* (the council of elders). It is the second most important celebration after the birth of the child. The symbolism of marriage contained in *mmanya*

ajuju (the wine of inquiry), *nleta ala* (home visit by the bride to the groom's house), *nkuzu mmanya* (completion of wine) and the *emume olulu nwayi* (the marriage ceremony *per se*) reach a culminating point in the "bride price" (Iheanacho, 2012).

The "bride price" is a certain amount of wealth (or money etc.) given to the bride family in exchange of their daughter. It is a concrete expression of gratitude to the family of the bride in compensation for the pains of upbringing and education. It could be seen as that which effectively seals the contract between the family/kinsmen of the bride and that of the bridegroom, and confers the right of ownership to the bridegroom. Women do not usually profit economically from this transaction and transfer of ownership, outside the achievement of a proper social status of "a married woman" (Aina, 1993). Moore writes: "In bride wealth transactions, *groups of men exchange goods for women, or rights in women, between themselves*. Women would appear to profit very little by them as individuals. The rights transferred with the bride wealth valuables involve the transfer of right of children" (Moore, 1988, p. 70). The italicized above shows the satisfaction of *collective intentionality* and it is in this way that "X (*nne*) counts as Y (*nwunye*) in C" (the gathering of elders—men—who transfer right of ownership of the woman using a linguistic formula), a shift which does not go without the institutionalization of power and inequality. Does this then mean that power inequality arises from this *collective intentionality* of a group of elders representing the *oha na eze* since masculinity is the normative dominant discourse? In section The Institutionalization of Power Inequality as Unintentional we shall argue otherwise: that the intentionality of inequality here at play is of another type—inequality is actually *unintended* and therefore springs from a different process.

There are no doubts that the bride price is often exploited, when her kin try to commercialize her qualities such as beauty, intelligence, industry and enterprising spirit, when they try to make gains out of these, and sale her off to the greatest bidder. Otherwise each kindred unit was autonomous in fixing their own bride price and drafting their own list. The family and *ama ala* (this refers to a group of elders who played a major role in the marriage transactions and transfer of ownership) of the groom would go home to work hard to ensure there was nothing left behind in the list so as not to spoil their face in the house of their future in-laws. On the day of the marriage proper, kindred members of the groom will help to deliver the prepared food, drinks and the material things which are part of the bride price to the house of "their to-be wife," accompanied by dance groups or songs. When the preliminary parts of the traditional wedding must have been over, "the kinsmen of the bride's father would demand to be paid with signs and in secret... Many communities did not even allow the name of money to be mentioned in any transactions regarding marriage... they did not want to give impression of selling their daughter for money... In some communities, there was no stipulated amount to be paid... Families were allowed to pay whatever they could afford" (Iheanacho, 2012, p. 205–206). Even when the transaction of the bride price did not directly imply any economic gain for her, the social weight of the woman was measured according to the fatness of the bride price.

The rituals of the bargaining, compromise and paying of the bride price is beyond women's affairs; they were not allowed to participate as David Iheanacho's documentation shows. With the payment of the bride price, the man exercises a claim to the woman; with it also the man is legitimately entitled to the children born inside and even illegitimately outside of wedlock by the woman. In case of divorce, the man retains an absolute right of control over the children. At the end of the ceremony, the bride follows the groom to his home; she knows that she is no longer her own.

Social Torture of Unmarried Women

We have analyzed the "woman" in Igbo land as a relative term derived from the man, an anthropological base from which her freedom and independence are measured. If the woman abstains from this base, she is not integrated in the society and suffers severe consequences (Entwistle and Coles, 1990, p. 266). That means the aspirations of the community is imposed on her as a way of life. She is a product elaborated by culture. She cannot but lose her personhood, if not coupled with the man, to become a *nwunye* (wife).

Any female who finds herself in this group is counted as most unfortunate. What fate has left for such is isolation from the community. They live their humanity as though without using their means and without reaching their end. Because they have not been fruitful, they see themselves as failures. In the stratification of the society, no place is reserved for them except the despicable nomenclature: "*Oto n'aka nne ya*" (the one who remained bound to the mother without gaining her own natural fulfillment—marriage). This stigma placed on them is hard to erase as they carry it all through life, wishing they were never born. Even after life, this stigma remains. They are thrown away in evil forests or waste lands for they deserve no memories behind. In the list of venerable ancestors they can hardly secure a minimal position and no one would wish to be like them since they have become a synonym of an accursed life: No suitable place of rest, no suitable place in the list of ancestors, no place in the memory of the succeeding generation (Ekweariri, 2011). To be given into the custody of the man in marriage remained the only way to avert *this burden of being*. Now we can understand the aforementioned claim that share biology (*nne*) is negative in the Igbo social structure and in this way we have attempted to give answer to our initial question: what is the experience of being woman in Igbo land?

DISCUSSIONS

The Institutionalization of Power Inequality as Unintentional

The above considerations have helped to bring out how relations in traditional Igbo society construct women as "property" through the institution of marriage. Within such institutional structures, "women's ability to act as fully operative individuals in relation to property... is always less than that of men" (Moore, 1988, p. 72). In relation to men they are less able to act as full blown subjects who possess an independent existence. One sees

here a *dialectic* which confers a great deal of power over women—of ownership, determination and control—to men. Women turn out to be silenced by the dominant structure of power¹⁵ that makes them the unequal of men, as we have seen in the four attitudes above. This *dialectic* is what we refer to in this paper as the institutionalization of power inequality between the sexes. Some have interpreted this power to be constructed within the dichotomy of ‘male is to female as culture is to nature,’ where the first stands for public and the second for domestic. Whereas, the former is preferred to the latter, since it is always the case that culture seeks to transcend and exploit nature, and therefore superior to it and whereas the activities of Igbo men in traditional society are associated with institutions, governance, authority, women’s were based on reproduction, nursing, and domestic etc. It is worth questioning why women are tabooed from the public sphere, and places of authority in traditional Igbo society, why a certain patriarchal psychology still treats them as lacking an autonomous existence (they do not belong to themselves), and why a socio-political culture constructed by the oppressive male caste should be sacrosanct. We can compare such an institutionalization of power inequality to the institutionalization of “God”¹⁶, in any religion, which puts women on the margin of the society.

While setting the man as the foundation of all things the Igbo socio-political structure has succeeded in laying the foundation for all other subordinations that has become an existential burden for the woman. Whether she is treated as property, denied of participation in important decisions of the family/society and in inheritance of family goods, given away in her early years as a maid, sold into marriage with the bride wealth, confined to the home and domestic works (Ekechi, 1995) which made men “bread winners” and women “home-makers” (Steady, 2001, p. 38), forced into early marriage because of accidental pregnancy, not given a fair chance in career as her male counterparts are,

¹⁵These are those structures we have examined in the four major features above by which socialisation, right from early childhood, inculcates a set of attitudes by which power relationships take root in social structure. Part of this pattern is that women become a muted group whereas men become enabled groups. Henceforth, we see this power as that which introduces inequality.

¹⁶In this purview, Conrad A and Michalik K sarcastically probed the male caste for erecting an oppressive image of God that is disgusting to Western women: “why do men worship a God whose major quality is power, whose interest is to subjugate others, whose fear is that others could be equal and become somewhat like him; a being that is addressed as Lord or to whom power is insufficient that his theologians have to even certify him omnipotent. Why has this symbolism become pronounced, and why was that so important for those who thought over it? What fantasies are behind it? Does it amount to saying too much if I name these fantasies phallocratic, namely the worshiping of power? Why should we as women worship and love a being who does not transcend but stabilizes the moral level of the current culture determined by men? I have asked myself how I could wish power as a central category of my life” (My Translation).

In the end they claim that to identify with such an aggressor, dictator and violator would be the worst mishap that can happen to a woman. If Conrad A and Michalik K were sarcastically mocking “God,” it is because such a ‘God’ was not actually a God, since he was rather fearful. But fearful of what? Indeed this “God” is referring to men who have assumed his place, and erecting the image of God that will forever disqualify women from being their equals. It is exactly in such a move that the whole institutionalisation of power was based on the institutionalisation of inequality. In the end Conrad and Michalik pleaded for a “God” who gives women the chance to be humans.

tortured for not being married to a man or for being barren, the Igbo woman today stands in a certain disadvantaged position, precisely because power is unequally distributed.

Now if we depict this as a moral wrong (for morality involves the active use of the faculties of reason and freedom: i.e., it involves intentionality), it will appear as though, men in Igbo land were actively thinking out ways of marginalizing their women counterparts. Though the status function and the experience of women were the collective construction of the dominant discourse of masculinity, *we do not think that such a “collective intentionality” did undergo conscious reflection*. If we make this claim, it is precisely because this type of moral wrongness distinguishes itself from all other moral wrongs deriving from a specific conscious intentionality or from the reflected actions and policies of some groups.

The morally wrong image and depiction of women as the unequal and properties of men Igbo land derives neither from her own choices nor from her actions, for it is something beyond her own control and choice. Neither does it originate from the *directly willed choices* of others nor their actions, nor does it derive from any particular unjust law or single unjust policy consciously imposed. This wrongness does not directly relate to her life, but to her *position* of being vulnerable to unjust treatments. Contrariwise, women’s vulnerability to unjust treatment is a “multiply, large scale, and relatively long term” (Young, 2011, p. 47) process, deriving from private and public policies “and the actions of thousands of individuals acting to normal rules and accepted practices.” Thus, investigating the origin of the institutionalization¹⁷ of power inequality has to put into consideration the fact that the multiple processes at play might not be premeditated acts.

The *multiple processes* alluded to above could come in the following forms: (1) “*objective constraints*” (these are those formal and informal **social rules** that tend to hinder her from being justly treated: e.g., that women could not inherit ancestral lands; that the man should protect his wife by walking ahead of her, were they to be on the way; that females were not to appear before the *ama ala*¹⁸; that women do not and could not bail anyone from prison); (2) “*positions*” (these have nothing to do with her as a person, e.g., as Ngozi, Maria or Ahuruchiokwe, but as the way in which women stand in relation to others: that she was a 38 years old unmarried business woman, applying to buy a landed property alongside two other male counterparts;

¹⁷We are adapting Young’s idea of *structural injustice* to describe this same institutionalisation which tends to make women vulnerable to an unjust treatment without any of the agents directly willing nor being responsible for it. In most cases other subjects who do not find themselves in the Igbo woman’s situation tend to benefit from it. Whereas women who find themselves in this group are exposed to such vulnerable and unjust treatments (exposure to ostracism, subordination and oppression), they suffer these situations as individuals and are unable to negotiate power with the massive institutional structures in place; they are deprived of the means of developing and exercising their capacities (Young, 2011, p. 52).

¹⁸The *ama ala* is also a public forum where all socio-political issues are discussed. The Igbo traditional society prohibits women from partaking in such gatherings. The only exception to this rule can be secured through invitation. In most regions of the Igbo society, the *ama ala* took place during the times evening meals where being prepared by women. Once the men are back from such gatherings, their meals were already ready.

that she was a 46 years old barren woman with an edifying career; or a 77 year old grandmother from a large family and who has a lot of respect in her extended family); (3) “*structures produced in action*” (when individuals explore their knowledge of social rules to improve their capacities: a fat bride price, from which the woman could not directly profit, and which in fact authenticates her deprivation of any autonomy would increase her social weight, if she could explore her knowledge of social rules and exploit social relationships to acquire it; since a populated home was advantageous to the man, both in servicing his ancestral lineage, ensuring a befitting burial and securing for him a venerable place among the ancestors, women who were very fertile were treated in certain ways in relation to others: from this predisposition could emerge institutional manners of honoring such women. An example here is *igbu eghu ukwu* which celebrated fertility); (4) “*unintended consequences*” (in this case the woman’s exposition and vulnerability to unjust treatments is an outcome of **a. individuals—private persons** like siblings, her father or mother,—and **b. public institutional policies and practices** such as those of the council of elders or the *ama ala*, who while acting did not foresee these consequences. Examples: Consider in the first instance that the young woman’s father promised to marry her into a noble family, because she was respectful, self-effacing, obedient and submissive to him. The father does this purely out of good will and no wrong was ever intended. The young woman rejoices because she is on the right side of series of events that would lead to her socio-cultural actualization. Consider again in the second instance that is the prerogative of the *ama ala* to carry out the marriage enquiry, *mmanya ajuju*, and whether her being uplifted to the next social status of marriage would take place, depend, to a large extent, on their recommendations and consents. Note that the council of elder’s decision to do this is purely based on the “good-will” of protecting their “daughter” from any unhappy wedlock. Thus their duty is to investigate the bride groom’s family background and to ascertain that it was free from any history relating to certain mental diseases like schizophrenia or that the said family was neither cultically impure as an *osu*—an outcast—(Odunze, 2017), impeded from marrying their daughter who is a free-born or *nwadiala*, nor unfair to women. However, all these might result in a subordinating depiction of women).

As we have seen the *multiple processes* are internal to the dynamics of that given society and do not derive from any single intentionality, action, policy or practice. All these work hand in hand to produce effects that were neither intended nor consciously premeditated in any way, and in most cases beyond any specific institutional fact. While carrying out their cultural assignments, the individuals in the council of elders were not conscious of selling their daughter; neither were they aware of how they were making women their unequal by institutionalizing subordination. If at all, they would be considering themselves as carrying out honorable acts by keeping the traditions handed over to them alive; more so they would be happy for “their” daughters who were actualizing their potentials by being married and begetting children, and be worried about those who were not.

If the status function of *nwunye* (wife) was connected with power control by the dominant class, as the four traditional attitudes above highlighted, since it made women vulnerable to unjust treatments (subordination, oppression, ostracism) in relation to their male counterparts in Igboland, it becomes expedient to inquire from where these unequal *deontic powers*¹⁹ originate? If it does not originate from a collective intentionality, does it mean that it originates from a non-intentionality with regard to institutional facts? For instance, the *intended* function of money is to be a means of exchange; its *unintended function* could be to maintain the system of power relationship in society. In like manner, among the Igbo the *intended function* of the institution of marriage is the mutual protection of the rights and social interests of the parties, but the *unintended function* might imply the *enablement* of ‘some’ (the institutional fact of *di* exercises a constraint on the institutional fact of *nwanyi/nwunye*) and the *subjugation* of “others” (in the case of *nwunye*, social status is to be recognized by their power of external coercion on her;²⁰ the woman is represented as the property of the man).

It is this *unintentional* aspect that is usually lacking in accounts of the institutionalization of social realities where, in its place, dominant discourse, collective intentionality (that is the case of someone or a group of people thinking it so, (Schweder, 2007, p. 97/98) are usually emphasized. Though scarcely accounted for, the unintentional aspects play a serious role in the subject’s constitution of the world or of social realities. It is therefore of a great importance to us, to highlight the origin of such unintended but subordinating images and actions, which are characteristic of the experience of women in Igbo land.

EXPLAINING THE UNINTENDED IMAGES AND DEPICTIONS OF WOMEN VIA PASSIVE SYNTHESIS

Our motivation in seeking for answer to the origin of unintended but unjust actions (oppression, subordination) stems from Jean-Paul Sartre who expressively wrote in his *Critique of Dialectical Reason*:

These considerations are not intended to make oppression *into the direct, historical origin of class division and exploitation*. Far from it. On the contrary, we recognize - because it is obvious - that the practico-inert field of exploitation constitutes itself, through counter-finalities and through the meation of worked matter, as a *passive synthesis of serial relations*” (Sartre, 2004, p. 737; Italics are mine).

¹⁹The fact here is that the Y (this has been explained above) term, through collective recognition creates new powers, e.g. *authorization, permission, enablement* etc. Through a collective agreement, a sea of possibilities is opened, so that one can do things one would otherwise never have been capable of previously doing (Positive). This is the first aspect of the deontic powers; in the second, the agent is *required, obligated, compelled* to do something he would never otherwise have done (negative). These powers are a matter of convention, and they are meant to regulate the relationship between people.

²⁰The individuals are women who are denied one (Durkheim, 1938, p. 10). This passage is cited by Searle himself.

Continuing Sartre writes:

Whether we are dealing with slavery as an institution or with the consequences of the division of labor, it is impossible to treat the material, technical, demographic, etc., development of a given society as *the objectification of the free praxis of an individual or group*. It is undoubtedly true that - as Engels says - slaves appear at the moment when the development of the techniques of agriculture makes them possible and necessary, that is to say, that *an institution is a response to the practico-inert exigency of an already constituted field of passive activity* (Sartre, 2004, p. 737–738; Italics are mine).

In other words, what Sartre is saying is that the division of the society into class—in our situation the division articulated between the dominant masculinity and the “inferior” femininity or in the collective intentionality of a dominant group of elders—is not the place to look for, when searching for the origin of power inequality or of oppression. Neither does the constitution of social realities (e.g., oppression) emerge from the directly intended goals of individuals. Though it is clear that the type of oppression he was referring to in this text, inspired by a reading of Engels, is associated with the condition of workers in a capitalist system—which constitutes some as slaves or workers and others as masters or employers—yet Sartre is clear about this: oppression neither springs from such divisions nor from the conscious subjective decision of individuals (he called it *the free praxis of individual or group*). Contrariwise oppression emerges from the internal constitutions and dynamics of a system (which he termed *the practico-inert exigency*), which constitutes itself in a serial order, the affectation of the one being the affectation of the other, and the affectation of the other being that of another etc., without any of these being consciously intended (multiple process). That means that institutions (like oppression, inequality, classes etc.) arise from already available passive structures. Institutions produce themselves pre-reflexively; they spring from a passive synthesis. Sartre is not alone in this thinking. Elsewhere the production of racism and oppression in general has been respectively accounted for by passive synthesis (De Roo, 2013; Nethery, 2018).

It was however Husserl who in *Aktive Synthesis: Aus der Vorlesung “Transzendente Logik” (1920/21) Ergänzungsband zu “Analysen zur passiven Synthesis”*—where the aspect of “activity” in the title simply indicates how subjects constitute their world and the aspect of “passivity” indicating how these same subjects are being constituted²¹—developed the phenomenological theory of *active and passive synthesis*. For the sake of clarity, in the aspect of activity, the “I” generates and constitutes new objects as products. The examples which Husserl himself gives show the activity of reason, when it performs “division” (thus constituting parts: “Imo state has 27 local government areas”), “counting”

(constituting numbers: “Anne’s Apartment has 6 rooms”), “predicating” (making predicative judgments) etc. (Husserl, 2012, p. 80). Accordingly, it is in the acts of the “I” (*Ichakte*) that the consciousness of the objects (*Gegenstandsbewusstsein*) is accomplished. Even in all experiences without objects (such as in art works, economic goods), a higher level of objectification is operative whenever the “I consciousness” performs objective value predicates (Husserl, 1920/21, p. 7): “Sandro Botticelli’s *The Birth of Venus* is a classical masterpiece”; “In the 1950s Germany experienced a *Wirtschaftswunder*” (economic miracle). We can see that this dimension is explicit. However, as soon as²² these explicit reflective performances are made by conscious act of the ego, they “sink again into passivity” (Husserl, 1920/21, p. 5) and become for future use implicit. How does this happen? To account for this we now turn to the aspect of passivity elaborated by “passive synthesis.”

Passive synthesis captures those dimensions where our experience of things is pre-given, (*vorgegeben*), in advance, and already accomplished. For Husserl, what encounters us in life, so to say as just ready, completed stuffs—say hammer, table, etc.—is given in the originality of “itself” in the synthesis of passive experience (Husserl, 2012, p. 80). Consciousness can in active reflection always fall back to these “pre-determined” experiences.²³ For instance when I am trying to perform an objective value judgment about this piece of art work before me, I fall back to already pre-given and finalized structures such as internalized vocabularies that are not currently being reflected over: “masterpiece,” “classical,” “Botticelli.” Thus: “Botticelli’s work is a classical masterpiece.” This means that pre-determined experiences are evoked in each active synthesis. However, it does not mean that the predetermined experiences underwent a conscious (explicit) reflection since they are automatically evoked. But how was this predetermined experience constituted in what Husserl named primary constitution (*Urkonstitution*)? Husserl’s response to this can be found in the analysis of perceptual objects and in the phenomenological perception of time consciousness. In the analysis that follows I take the liberty to merge these two aspects together.

In the “Analysis Concerning Passive Synthesis,” Husserl identified a contradictory aspect of external perception which consists in the limitation of the processes of appearing (*Erscheinungsabläufe*) and “beyondness.” When we perceive spatial objects they appear to us in a limited fashion in the *present*. We see *only one* side of them. Yet they “present” to us a plurality of appearances (possible perspectives and sides of appearing) which are not immediately perceptible,

²²This as “soon as” of the reflective performances of the conscious ego was named by Husserl as the primal constitution (*Urkonstitution*).

²³We cite elaborately Johanna Oksala in order to highlight this point: “Dan Zahavi argues that in Husserl’s philosophy the intentional activity of the subject is founded upon and conditioned by an obscure and blind passivity, by drives and associations. He notes that Husserl famously declares, in *Analysen zur passiven Synthesis*, that his investigation of the problem of passivity could well carry the title “a phenomenology of the unconscious.” For Husserl, the reflecting consciousness can thus never be totally trans-parent to itself. There are constitutive processes of an anonymous and involuntary nature taking place in the underground or depth dimension of subjectivity which can only be uncovered through an elaborate archeological effort.” (Oksala, 2004, p. 17).

²¹In Freud (2018) we might speak of the realm of consciousness and the realm of unconsciousness as corresponding terminologies. The symbolic that is unleashed during dreams shows that, though the dreaming subject was on the realm of unconsciousness, there is a condensed meaning of the world for the subject, who is not directly participating in it. This meaning is implicitly given as a pre-reflective consciousness.

“a beyondness” (Husserl, 1966, p. 3–4). This seeming contradiction, or tension, between the “already perceived” (fullness) and the “not yet perceived sides” (empty) is rather a continuum, for the former points to a “co-constituted” “not yet,” and the latter makes the “already perceived” possible in the first place (it marks its openness). The emptiness of the “not yet perceived sides” does not imply that the “not yet” are “nothing.” Rather it is an emptiness with intentionality, or a “determinable indetermination,” once we go round the object and behold the other side. In other words, the intentionality of the “not yet perceived” can become fulfilled. When this happens, the process is repeated in each phase of perception, so that new empty horizons of possible appearances merge into fulfilled appearances. This process, which Husserl termed adumbration (*Abschattung*), of external perception captures the flow of experience which is given in time. This implies the merging of the “already perceived” into the “not yet perceived” (of fullness into emptiness), in which each advancing fulfillment of empty intentions corresponds to an emptying. In simple terms, immediately the world or perceptual objects are experienced they increase my knowledge (perceptual experience); they become determined and no longer determinable. Thus empty, though fulfilled. But this knowledge will disappear, or experience in general will not be possible, if it were not held in place (Ekweariri, in press). We would only have single rapidly flashing points of linear appearances that are not connected to one another.

It is *retention* (capturing the past), together with *protention*²⁴ that secures an “acquired” experience for a future use, for experience cannot exist outside these dimensions of time. An acquired sedimented experience (this is possible thanks to the retention) can be *relieved* (*Vergegenwärtigung*)—for Husserl it is freely available (*frei verfügbar*) and makes the world already always given to us in advance—each time. Experiences that have fallen into retention will lose their specifications with time and will take on a general view which can be re-awakened via *association* in future situations, when one comes to similar situations. For Husserl, association involves an affective awakening of a past experience which is connected by similarity (*Ähnlichkeitsverbindung*) with present experience. It is a “purely immanent connection of ‘this recalls that,’ ‘one calls attention to the other’” (Husserl, 1985, p. 78). This process occurs passively²⁵ without my conscious intervention. You come into your working room and go directly to the writing desk. This is automatic because the presence of the chair exercises an affective pull linking your past experience of your working room with sitting and your present condition of being exposed to the same experience. To be more technical, assume you were in Igbo land and you saw a woman walking with her husband on the way. She walks twenty meters ahead in front of him. Immediately

you are shocked. Now all your experiences of “couples walking on the street” and a woman walking in front of her husband have been retentionally sedimented in a general sense. One of such experiences could be your mother’s commentary that such a woman was not cultured. These experiences are now “awakened” the moment you observed this woman walking on the street. Immediately you saw this woman walking in front of her husband, you were upset. You had no time to reflect what might be the reason for her doing so. All active reflections were bypassed. We see that although an experience might not be active in your field of consciousness, it was however *passively* there in an implicit form. Since the experiences in retention are the basis of possible future experience, we can see that it is in the exposition to the *multiple processes/experiences of the depiction of women in a particular way* (as properties of men in Igbo land, as unequal of but subordinate to men) that constitute the sedimentations and not just *collective intentionality* of a class of agents (e.g., *ama ala*) or individuals acting in accordance with accepted practice.

At this point, it is important to note that this structure of perceptual experience of the world (or objects) cannot be complete if mention is not made of *protention* (like future expectation). This concerns the “not yet perceived parts,” which are however co-constituted in perception. When the “not yet perceived” side of the object is perceived then the expected perception is fulfilled and take the dimension of expectation with reference to a future possibility, which can be further fulfilled or not.²⁶ The protentional dimension is therefore the dimension of *possibilities* because it makes consciousness open to *new possibilities* (Nethery, 2018, p. 287). The protention of past passively sedimented experiences of the meaning of—the images which are pre-given about—woman in Igbo land is activated whenever one comes in cross with a woman in Igbo land, causing one to *expect* this woman to conform to predetermined representations of subordination. With regard to the woman you saw walking twenty meters in front of her husband, you might even unconsciously start expecting the woman to be disrespectful, uncultured, in case you have another opportunity of meeting her in future. A well-known slogan used in daily interaction such as: “when a woman outgrows the question ‘whose daughter is she, people would ask, ‘whose wife is she?’” documents one of the sedimented representations of women. This might predispose men and women to evaluate women’s self-accomplishment (success) in terms of a life with a man, and failure in terms of a life devoid of a man. It is from such passive predispositions to possible depictions and representations of women that future power inequalities are exercised.

Before we conclude, we want to highlight this passive aspect of sedimented experience as it is very pointedly developed in Merleau Ponty’s *habitation, sedimentations and structures*,

²⁴The retentional and protentional extension of absolute and pure now is necessary since they make consciousness thinkable/possible. There would not be a consciousness were there no determination of time which transcends the actual moment of now. For instance we would not be able to have a melody which flows in time continuum, but single jerky sounds, were there no retention and protention at the border phase of the Present.

²⁵It is of great importance to point that both the retention (still having grip on the already gone) and the protention are passive functions of time.

²⁶This is captured by Gallagher (2011, p. 423): “If I am listening to a favourite melody, there is some sense of what is to come, a primal expectation of the notes to follow, and the best indication of this is that if someone hits the wrong note, I am surprised or disappointed. If a person fails to complete a sentence, I experience a sense of incompleteness. This kind of perceptual disappointment is based on a lack of fulfilment of protention: what happens fails to match my anticipation.”

which were all articulated with the theoretical framework of the body, to which we shall now briefly turn. We shall only explain the first. To this regard, Merleau Ponty portrays the anonymous pre-personal existence of the body,²⁷ where it plays a key role in our making meaning of the world. If Merleau Ponty speaks of the body here, we have to understand it as a general theoretical intuition (of experience) through which individuals make sense of the world. This type of meaning is not set up as reflective thoughts because here the functioning of the body follows a stable and habitual path as evident in the mastery which the typing hand has of the keys: “To know how to type is not then to know the place of each letter among the keys [...] It is a knowledge in the hands, which is forthcoming only when bodily effort is made, and cannot be formulated in detachment from that effort” (Merleau Ponty, 1945/1962, p. 143–144).

The way the subject who learns to type, learns to habitually incorporate the key-bank space into his body space, so also is the individual able to incorporate the world in his *data bank* of experience (the idea of the body schema). It is through this means that the body is able to know the world in a non-premeditated but habitual way. Merleau Ponty writes: “habits express our power of dilating our being in-the-world” (Merleau Ponty, 1945/1962, p. 143–144). Habits provide the body with a knowledge that is automatic, like the “reproduction” (or association of past sedimented experience in the context of a present experience) found in Husserl, because the body does not need to consider or reflect about the course and path of action.

The concept of habits appears also alongside with that of “structures” in Merleau Ponty. Structures refer to bodily, social, psychological, cultural and psychomotor formations through which meaning is deciphered in the experience (and orientation to) of the world. So they help us to communicate with and comprehend the world—this involves internalizing the world of reality in us in a given way—and from hence we can relate to the world in a habitual way so that in experiencing we do not need to repeat a long process each time, wherein the familiar is encountered by way of habitually sedimented structures. When structures are transformed and sedimented, they become a part of a habitual way of being in the world, thus

expanding and further articulating our experiences (Bullington, 2013, p. 33–34). These experiences are accumulated in our data bank of experiences. Consider *language* and *culture* as such sedimentations of experiences in body schema that predispose in a particular way. Merleau Ponty’s idea of the habituation of the body can therefore find expression in the following cultural habits which predispose in advance of all conscious reflection: The *ama ala* or council elders have the sole prerogative of deciding and recommending the suitor to their daughter (each female born into that clan). This tradition might predispose younger women to behave in certain ways in relation to all the male members of a community. Perhaps some members of this council could be predisposed, to exploit these situations as opportunities to increase and develop their capacities, thereby propagating power inequality. Even the *bride price* as a means of increasing one’s social weight or the economic and cultic advantage of women—example the *igbu eghu ukwu*—who help to service the ancestral lineage of the man, could predispose both men and women to behave or relate in certain ways that promote power inequality. From most of these multiple processes taken together, individuals in this Igbo society would not be conscious of the way they perpetuate a given oppressive image (representation like the idea of women as properties) of the woman, an image which might predispose them to being vulnerable to be treated as the unequal of men.

CONCLUSIONS

I have shown that the phenomenological theory of passive synthesis is capable of explaining not only the *origin of inequality* and the constitution of *nwunye/nwanyi* (wife/woman) as property; but also the origin of all *unintended but oppressive images and subordinating* depictions of women in relation to their male counterparts. By *unequal* we have referred to those positions of subordination that being *nwanyi* or *nwunye* would entail in relationship to all other agents in the socio-cultural milieu of the Igbo. More so, whereas collective imposition of status function using constitutive rules—that is linguistic devices—sufficed to explain the meaning of women in relationship to the man, I have shown that this same criterion, while open to *unintended consequences*, cannot explain how these same consequences came about. We think that such is not well-equipped to articulate those problems concerning the *experience* (oppression) of women in Igbo land.

The path to overcoming such *unjust images of, and action toward women* needs to acknowledge this origin of all *passive and unintended, but unjust images and actions*, since it would contribute to the first steps in the bid of changing the social relationship between the socially constructed categories of “woman,” “wife” and “man,” “husband” in Igbo land. The passive origin can also explain why inequality seems even to persist over time, even when the contexts of their original constitution have totally disappeared. For instance, even though the traditional habits such as *igbu eghu ukwu* as mentioned above are no longer ubiquitous and popularly celebrated, yet barren women continue to solely bear the burden of childlessness, in comparison with

²⁷When we read from Merleau Ponty: “The flesh of the world, (‘the qualia’) is inseparability of this perceptible being that I am, and of all the rest which perceives in me, an inseparability of pleasure and reality” (French version: “La chair du monde, (le ‘quale’) est indivision de cet Être sensible que je suis, et de tout le reste qui se sent en moi, indivision plaisir réalité” (Merleau Ponty, 1964), p. 303) Richir would understand therein a usurpation of the theoretical intuition of consciousness by the introduction of this new notion of « chair ». Accordingly, “The ‘flesh’ is another, new way altogether of apprehending the reflexivity classically ascribed to consciousness” (French version: “La ‘chair’ est donc une autre manière, toute nouvelle, d’appréhender la réflexivité classiquement mise sur le compte de la conscience” (Richir, 2000, p. 295). For Richir the reflexivity here is equally the same reflexivity in an intersubjective encounter, which now Merleau Ponty generalises. Rather than hypostasizing in the mind, thought or consciousness, Leib (understood too as body) is a place of passage “ein Ort des Durchgangs” (Richir, 2000, p. 295). We now see the body’s interchangeability with the mind, consciousness, through which sensation passes across in order to return to itself. Is this not then a sort of opening of the world? It is because of this reflexivity of the body in terms of consciousness of the world that we understand the body in Merleau Ponty as a theoretical intuition by which individuals make sense of the world.

their male partners. And though for present generation of adults it is for the most part unobtrusive when the traditional habit of women walking behind their husband are no longer observed, women continue to expect their future partners to be protective bread winners of the family who take the lead in all matters such as decision making etc., while men continue to expect that their future wives be totally subordinate.

Though some of the original contexts of some of the “primal constitutions” of passivity (*Urkonstitution* to use the vocabulary of Husserl) are no longer available, the subordinate image and depiction of women which they carry as content continue to be propagated and produced daily—in some new forms. The Igbo society is still inundated with such depiction of women as men’s properties, as subordinate. It is this present general and more diffuse depiction of women that is most powerful since it unstoppably strengthens and perpetuates the gap of inequality.

To further corroborate our claims about the passive origin of inequality and subordination, some women or men who travel outside of Igbo land to, say, western societies, experience a sudden radical change in their perceptual experiences. This is

because they are now conscious of this field of perception that was implicitly present and could, in most cases, reflect on their cultural habits for the first time.

AUTHOR CONTRIBUTIONS

The author confirms being the sole contributor of this work and has approved it for publication.

ACKNOWLEDGMENTS

I acknowledge the critical insights of Anne Berger, which was helpful in the preparation of the first draft.

I declare the use of materials contained in the series: Ekweariri (2011), *The Virgin-Mother: A Critique of Some Contemporary Problems Involved in Motherhood* which was accepted by the Ahiara Diocesan Newspaper, *The Guide Newspaper* in Nigeria, but which is no longer online because of lack of maintenance of the diocesan website.

I declare the use of insights in this paper emerging from having lived in the Igbo socio-cultural milieu.

REFERENCES

- Adichie, C. N. (2006). *Purple Hibiscus*. Farafina: Lagos.
- Aina, O. I. (1993). Mobilizing Nigerian women for national development: the role of the female elites. *J. Afr. Econ. Hist.* 21, 1–20. doi: 10.2307/3601806
- Amadiume, I. (1987). *Male Daughters, Female Husbands: Gender and Sex in an African Society*. Atlantic Highlands, NJ: Zed Books.
- Barett, M. J. (2005). Making (Some) sense of feminist poststructuralism in environmental education research and practice. *Can. J. Environ. Educ.* 10, 79–93.
- Benhabib, S. (1986). The generalized and the Concrete Other: the Kohlberg-Gilligan Controversy and Feminist Theory. *Praxis Int.* 5:4.
- Benhabib, S., and Cornell, D. (eds.). (1987). *Feminism as Critique*. Minneapolis, MN: University of Minnesota Press.
- Bullington, J. (2013). *The Expression of the Psychosomatic Body From a Phenomenological Perspective*. Dordrecht: Springer.
- Butler, J. (1988). Performative acts and gender constitution: an essay in phenomenology and feminist theory. *Theatre J.* 40, 519–531. doi: 10.2307/3207893
- Conrad, A., and Michalik, K. (1999). *Quelle zur Geschichte der Frauen, Band 3*. Stuttgart: Reclam Verlag.
- De Beauvoir, S. (1951). *Das andere Geschlecht: Sitte und Sexus der Frau*. Hamburg: Rowold Verlag GmbH.
- De Roo, N. (2013). *Phenomenological Insights into Oppression: Passive Synthesis and Personal Responsibility*. Pittsburgh, PA: Trivium Publications.
- Durkheim, E. (1938). *The Rules of Sociological Method*. Chicago, IL: Chicago Univ. Press.
- Ekechi, F. K. (1995). “Gender and economic power: the case of Igbo market women of Eastern Nigeria,” in *African Market Women and Economic Power: The Role of Women in African Economic Development*, eds B. House-Midamba and F. K. Ekechi (Westport: Greenwood Press), 41–58.
- Ekweariri, D. (2011). The virgin-mother: a critique of some contemporary problems involved in motherhood. *The Guide Newspaper*. Owerri: Assumpta Press.
- Ekweariri, D. (in press). “Marc Richir: Die Unbestimmtheit der Wahrnehmungsobjekte und der sehende Blick in the anthology,” in *Marc Richir und die Neugründung der Phänomenologie*, ed A. Schnell.
- Entwisle, B., and Coles, C. M. (1990). Demographic surveys and Nigeria women. *Signs J. Women Cult. Soc.* 15, 259–284. doi: 10.1086/494583
- Falola, A. (2005). *Igbo History and Society: The Essays of Adiele Afigbo*. Asmara: Afri World Press.
- Fleming, M. (1989). The gender of critical theory. *Cult. Crit.* 13, 119–141. doi: 10.2307/1354271
- Freud, S. (2018). *Die Traumdeutung*. Berlin: Dearbooks Verlag.
- Gallagher, S. (2011). “Time in action,” in *The Oxford Handbook of Philosophy of Time*, ed C. Callender (Oxford: Oxford Univ. Press), 419–437.
- Husserl, E. (1920/21). “Aktive Synthesen: Aus der Vorlesung ‘Transzendente Logik,’” in *Ergänzungsband Zu Analysen zur Passiven Synthesis*, ed R. Breuer (Dordrecht: Kluwer Academic).
- Husserl, E. (1966). *Analysen zur passiven Synthesis. Aus Vorlesungs- und Forschungsmanuskripten, 1918 - 1926*. [Analyses of passive synthesis. From lectures and research manuscripts, 1918 - 1926.], ed M. Fleischer (The Hague: Martinus Nijhoff).
- Husserl, E. (1985). *Erfahrung und Urteil*, ed L. Landgrebe. Hamburg: Meiner Verlag.
- Husserl, E. (2012). *Die Cartesianische Meditationen*, ed E. Ströker. Hamburg: Meiner Verlag.
- Iheanacho, D. (2012). *Mbaise: Who We Are as a People*. Owerri: Edu Edy pub.
- Ihuagwu, T. S. (2011). *Women and Child Trafficking in Former Eastern And Mid-Western Regions of Nigeria: Its Socio-Moral and Religious Implications* (Master’s thesis). Imo State University, Department of Religion, Owerri, Nigeria.
- Kelly, U. (1997). *Schooling Desire: Literacy, Cultural Politics, and Pedagogy*. New York, NY: Routledge.
- Lyotard, J. F. (1979/1993). *The Postmodern Condition: A Report on Knowledge*. Minneapolis, MN: University of Minnesota Press.
- Merleau Ponty, M. (1945/1962). *Phenomenology of Perception*. London: Routledge & Kegan Paul.
- Merleau Ponty, M. (1964). *Le Visible et l’invisible, texte établi par Claude Lefort*. Paris: Gallimard.
- Mmadike, B. I. (2014). The Igbo perception of womanhood: evidence from sexist proverbs. *Res. Humanit. Soc. Sci.* 4, 98–104.
- Moore, H. (1988). *Feminism and Anthropology*. Oxford: Polity Press.
- Muonwe, M. (2011). Male-centered hierarchical model of the family in Igbo (Nigeria) context: towards a more egalitarian family model in the light of the theology of ‘Domestic Church’. *BTS J.* 31. Available online at: <http://bigardenugu.org/btsjournal/bts-journal-vol-31-no-2.html>

- Nethery, H. A. (2018). Husserl and racism at the level of passive synthesis. *J. Br. Soc. Phenomenol.* 49, 280–290. doi: 10.1080/00071773.2018.1451218
- Nwanesi, P. K. (2006). *Development, Micro-credit and Women's Empowerment: A Case Study of Market and Rural Women in Southern Nigeria* (dissertation). University of Canterbury, Christchurch, New Zealand.
- Odunze, E. S. (2017). *Osu-Caste System in Igbo land and Its Contemporary implications: A Case Study of Isu local Government Area* (Bachelors thesis). University of Benin, Cotonou, Nigeria
- Okoye, P. U. (1995). *Widowhood: A Natural or Cultural Tragedy?* Enugu: NUCIK.
- Oksala, J. (2004). What is feminist phenomenology? Thinking birth philosophically. *Rad. Philos.* 126, 16–22. Available online at: https://www.radicalphilosophyarchive.com/issue-files/rp126_article2_whatisfeministphilosophy_oksala.pdf
- Onukawa, M. C. (2000). The Chi concept in Igbo gender naming. *J. Int. Afr. Inst.* 70, 107–117. doi: 10.3366/afr.2000.70.1.107
- Onwudufor, F. O. F. (2015). *Mmanu E Ji Eri Okwu: (Igbo Proverbs)*. Wood Dale, IL: Rex Charles and Patrick Ltd.
- Paechter, C. (2001). Using poststructuralist ideas in gender theory and research. *Invest. Gend. Contemp. Persp. Educ.* 41–45.
- Richir, M. (2000). *Phénoménologie en Esquisse: Nouvelles Fondations, Jérôme Million*. Grenoble: Coll. Krisis.
- Sartre, J. P. (2004). *Critique of Dialectical Reason* (Trans, Alan Sheridan Smith), ed J. Rée. London; New York, NY: Verso.
- Schweder, R. A. (2007). John Searle On a witch Hunt: A Commentary on John R. Searle's essay 'Social Ontology: Some Basic Principles'. *Anthropol. Theory* 6, 89–111. doi: 10.1177/1463499606061739
- Searle, J. (1995). *The Construction of Social Reality*. England: Penguin Books.
- Searle, J. (2007). "Social Ontology: The Problem and steps towards a solution" in *Intentional Acts and Institutional Facts: Essays on John Searle's Social Ontology*, ed S. Tsohatzidis (Dordrecht: Springer), 11–30.
- Searle, J. (2010). *The General Theory of Institutions and Institutional Facts: Language and Social Reality*. New York, NY: Oxford University Press.
- Steady, F. C. (2001). *Black American Feminisms Bibliography: Social Sciences: History in The Black Woman Cross-Culturally*. Philadelphia, PA: Temple University Press.
- Uchem, R. (2001). *Subordination in the Igbo African Culture and in the Catholic Church: Envisioning an Inclusive Theology with Reference to Women* (Dissertations.com).
- Young, I. R. (2011). *Responsibility for Justice*. Oxford: Oxford University Press.
- Conflict of Interest:** The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright © 2020 Ekweariri. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.



Occupational Attributes and Occupational Gender Segregation in Sweden: Does It Change Over Time?

Ingvill Bagøien Hustad^{1†}, Johan Bandholtz^{1†}, Agneta Herlitz¹ and Serhiy Dekhtyar^{2*}

¹ Department of Clinical Neuroscience, Division of Psychology, Karolinska Institutet, Stockholm, Sweden, ² Department of Neurobiology, Care Sciences and Society, Aging Research Center, Karolinska Institutet, Stockholm, Sweden

OPEN ACCESS

Edited by:

Kath Woodward,
The Open University, United Kingdom

Reviewed by:

Eva Cifre,
Jaume I University, Spain
Bridget Lockyer,
University of York, United Kingdom

*Correspondence:

Serhiy Dekhtyar
serhiy.dekhtyar@ki.se

[†]These authors have contributed
equally to this work

Specialty section:

This article was submitted to
Gender, Sex and Sexualities,
a section of the journal
Frontiers in Psychology

Received: 30 October 2019

Accepted: 09 March 2020

Published: 26 March 2020

Citation:

Hustad IB, Bandholtz J, Herlitz A
and Dekhtyar S (2020) Occupational
Attributes and Occupational Gender
Segregation in Sweden: Does It
Change Over Time?
Front. Psychol. 11:554.
doi: 10.3389/fpsyg.2020.00554

Sweden consistently ranks at the top of international assessments of gender equality, but paradoxically exhibits marked horizontal gender segregation in the labor market. By combining administrative and respondent-collected data, this study investigates whether occupational attributes are associated with sex distribution in Swedish occupations over a 10-year period between 2002 and 2011. Results show that the proportion of women was higher, on average, in occupations high in people orientation and verbal demands and lower in occupations high in things orientation and numerical demands. Mixed linear models showed a trend for desegregation during this period, as the proportion of women in people-oriented occupations has declined and a trend for an increase in the proportion of women in numerically demanding occupations was observed. Occupational attributes aid the understanding of gender segregation but patterns of segregation seem to change over time.

Keywords: gender, segregation, longitudinal, occupational attributes, numerical, verbal, people, things

INTRODUCTION

The segregation of men and women in Western labor markets is a topic discussed since the 1960s (Su et al., 2009). Ever since women started to enter the labor market in full force, it has become evident that the degree of female participation varies greatly between occupations, even within the same sectors (Ceci et al., 2009; Hegewisch et al., 2010; Ellingsæter, 2013). When discussing gender distribution in occupations, a distinction is typically made between two dimensions of segregation: vertical segregation, whereby men and women are clustered in different occupations in accordance with a hierarchical divide, and horizontal segregation, referring to a divide which occurs at the same level of occupational hierarchy and is instead based on the differences in occupational characteristics and attributes between the jobs occupied by men and women (Blackburn et al., 2001; Charles, 2003; Lippa et al., 2014).

The origins of horizontal sex segregation in occupations have been extensively debated and different perspectives have been voiced in both sociology and psychology. For example, gender stereotypes and their implications for educational and career choices have been debated (Correll, 2001; Charles and Bradley, 2009). Some research has shown that boys tend to have a higher self-assessment and sense of self-efficacy in mathematics than girls – also when matched on performance (Correll, 2001; Else-Quest et al., 2010). Cross-national studies have suggested that people implicitly associate men, rather than women, with scientific occupations, but that the strength of these associations is weaker in countries where

the representation of women in scientific fields is higher (Miller et al., 2015). Stereotypes have also been proposed to interact with new norms of self-expression and employment structures in post-industrialized contexts and might thus help explain why horizontal sex segregation is more substantial in countries high in economic prosperity and material safety (Charles and Bradley, 2009; Barone, 2011).

From a psychological perspective, one's cognitive abilities, sense of self-efficacy and interests may guide one's occupational choice, as suggested in social cognitive career theory (Lent et al., 1994). Previous studies have found gender differences in cognitive abilities where men have a slight advantage in complex mathematics and visuospatial tasks (Guiso et al., 2008; Else-Quest et al., 2010; Reilly, 2012; Hyde, 2014; Weber et al., 2014), while girls outperform boys on verbal measures and episodic memory (Reilly, 2012; Weber et al., 2014). Some researchers have questioned the magnitude and implications of such cognitive differences (Ceci et al., 2014; Hyde, 2014). A recent study has shown that gender differences in academic performance, which largely mirror gender differences in cognitive abilities, appear to have a long-lasting impact on individual life outcomes by affecting women and men's career choices (Dekhtyar et al., 2018).

While occupational gender segregation arises due to an interplay between multiple individual and environmental factors, it does not remain constant, but instead evolves over time. Thus, there has been a trend for gender desegregation in most industrialized labor markets since the 1960s (England and Li, 2006; Barone, 2011). However, the rate of desegregation has been unevenly distributed between occupations, exhibiting a trend toward stagnation in recent years (Tomaskovic-Devey et al., 2006), and mirroring similar developments as in gender segregation in education (England and Li, 2006; Ceci et al., 2009; Charles and Bradley, 2009; Barone, 2011). Sweden might be especially well-suited for investigating the evolution of occupational gender segregation, as it has been widely noted for being at the forefront of gender egalitarianism according to international assessments (World Economic Forum, 2013, 2014, 2015, 2016). Paradoxically, however, the Swedish labor market remains one of Europe's most horizontally segregated, a development largely attributed to a disproportionate share of Swedish women joining already predominantly female-dominated occupations during a rapid increase in female labor force participation between 1970 and 1990's (Melkas and Anker, 1997). It is therefore of much interest to investigate the recent changes in occupational gender segregation in a Swedish environment where measures to achieve gender equality have been predominantly targeted vertical, but not horizontal segregation.

One way of approaching the study of trends in occupational gender segregation is to identify salient attributes that characterize different occupations and then examine if sex distribution across the occupational landscape varies in accordance with these occupational prerequisites. Earlier research has shown that a dimension of people-things orientation, an occupational orientation toward either people or mechanical objects and systems, is strongly associated with occupational sex distribution: women more often work in

people-oriented occupations, and men in things-oriented ones (Ceci et al., 2009; Su et al., 2009; Barone, 2011; Lipka et al., 2014). Further, based on the previously mentioned research on cognitive gender differences (Guiso et al., 2008; Reilly, 2012; Weber et al., 2014; Dekhtyar et al., 2018), it may be interesting to investigate whether an occupation's perceived degree of verbal vs. numerical cognitive demands is associated with its sex distribution. Finally, because of changes in the patterns of occupational gender segregation, the emergence of new labor markets, and evolving employment structures, it is of further interest to consider whether the association between occupational attributes and the sex distribution has changed over time.

The purpose of the current study is to investigate the patterns of occupational gender segregation in Sweden from the perspective of occupational prerequisites. Specifically, we examine if an occupation's level of things and/or people orientation is associated with the proportion of women working in that occupation. We also examine the association between numerical and/or verbal demands in occupations and the proportion of women. Furthermore, we investigate whether the association between occupational attributes and female share in occupations has evolved differentially over time. For instance, has the share of women been in numerically demanding occupations changed faster than in occupations characterized by other types of attributes? This study contributes to the previous literature on horizontal gender segregation and its temporal evolution (see for instance Nermo, 2000) in several important ways. First, we characterize occupations according to attributes, which has the advantage of going beyond the classifications of fields of study usually deployed in research on gender segregation in education (eg. STEM or humanities etc.). This way, we offer another perspective into factors contributing to gender segregation, while, importantly, also tracking its development over time in Sweden, a setting paradoxically defined by low vertical and high horizontal segregation. Finally, we also have the benefits of full-population data to compute occupational sex ratios in a wide spectrum of occupations (and not just in broad industry sectors).

Based on the literature, four hypotheses have been formulated: (1) there will be a positive association between the proportion of women and occupations' degrees of people orientation and verbal demands, (2) there will be a negative association between the proportion of women and occupations' degrees of things orientation and numerical demands, (3) over time, the proportions of women will have increased on average in all occupations, and (4) the rate of change over time will have differed between occupations characterized by the four different attributes (people orientation, things orientation, verbal demands and numerical demands).

MATERIALS AND METHODS

Study Population

The material used in the current study is based on both already existing administrative data as well as collected data from respondents. Administrative data were extracted from the Swedish bureau of statistics, Statistics Sweden (SCB). The unit of

analysis in the study is all 355 occupational titles in Sweden. The titles are derived from a categorical classification of professions (SSYK96), which identifies separate occupational titles primarily in accordance with the field of study required to enter a given position (see **Supplementary Table S1** for a list of all occupational titles as well as all data used in the study).

Dependent Variable

The proportion of women in each of the 355 occupations between 2002 and 2011 serves as the dependent variable. It was computed by Statistics Sweden using the entire working population of Swedish residents aged 18–64 throughout the time period. Over the examined 10-year period, the average population was $N = 4,460,360$ with a span of 4,361,500–4,625,900. The dependent variable reflects the gender distribution in each occupation, but not the actual number of individuals working in it. In other words, one occupation might show a large degree of segregation, but the underrepresented gender can reflect either a negligible or substantial absolute number of workers employed in that profession.

Independent Variables

Data collected from respondents was used to generate independent variables (see procedure below). For the independent variables, four occupational attributes were included: numerical demands, verbal demands, things orientation and people orientation. The four occupational attributes constitute two categories. One describes occupational demands, that is, the nature of the cognitive skills necessary to perform the most dominant task in a given occupation. The other category describes occupational orientation, that is, what one works with or manipulates in a given occupation.

People orientation describes to what extent the main task in a given occupation involves working with people and interpersonal relations in various situations. Examples of highly people-oriented occupations may be nurses, psychologists and teachers. Things orientation describes to what extent the main task in a given occupation requires working with and/or manipulating things, meaning materials, gadgets and objects. Examples of highly things-oriented occupations may be mechanics, carpenters and tailors. Verbal demands describes the degree of verbal tasks and assignments performed in a given occupation. This pinpoints central cognitive skills relating to communication skills and language proficiency. Examples of occupations high in verbal demands may be linguists, lawyers and TV- and radio presenters. Numerical demands describes the degree of numerical tasks and operations performed, thus pinpointing central cognitive skills required to work in this occupation. Examples of occupations high in numerical demands may be statisticians, engineers and computer programmers.

Procedure

To obtain four measures of occupational attributes described above, student respondents rated 355 occupational titles on each attribute. Data from 15 respondents was collected, where each of the 355 occupations were rated on a 7-point Likert scale (1 = lowest value, 7 = highest value) for each of the four

occupational attributes. Ratings were collected during individual sessions lasting approximately 1.5–2.5 h, including short breaks. The respondents were selected to represent the knowledge and understanding of the group of individuals who are to begin their occupational career. In order to mimic the initial screening of the occupational landscape, the respondents were instructed to rate the occupational titles according to their own spontaneous impression of the main task performed in the given occupation. Respondents constituted a convenience sample recruited through advertisement via social media channels and word of mouth. All respondents, 8 women and 7 men aged 22–29 years ($M = 25.86$, $SD = 2.26$ years), were Swedish citizens with Swedish as their mother tongue. Ten were active students at different universities and other institutions for higher education in the Stockholm area. Further, four were either in between studies or recently graduated, and one respondent had no higher education. The fields of study varied between the respondents, ranging from humanities to science. Written informed consent was obtained from all respondents who were blind to the aim of the study and were informed that they could discontinue the survey at any time and still receive the compensation of two cinema tickets.

Statistical Analyses

The first part of the empirical strategy involved preparation of evaluator-based ratings for further analyses. Data from all respondents were used. Raw scores were standardized for each participant and used to calculate mean Z-scores for each occupation and occupational attribute. Using the STATA plug-in IRA, several measures of inter-rater-agreement (rwg; awg) were calculated to assess the consistency of respondent ratings.

Descriptive Analyses

All descriptive analyses omit the time perspective and instead explore the average proportion of women in each occupation over the period 2002–2011. Correlations were calculated using Pearson's r , assessing the associations between the four attributes and the average proportion of women working in the corresponding occupations in 2002–2011. A correlation matrix between the four attributes was also calculated to investigate the potential multicollinearity (**Table 1**) between the independent variables. For regression analyses, four models were fitted, one for each occupational characteristic's association with the average proportion of women working in that occupation. Because of apparent multicollinearity, no multiple linear regression analyses were utilized, and only simple linear regression analyses were performed.

Multilevel Modeling

Mixed linear models (MLM) (Duncan et al., 2013) were used to explore the following questions: (1) how has the average proportion of women on the Swedish labor market changed between 2002 and 2011? and (2) has this change over time been uneven depending on occupations' occupational attributes? These questions correspond to the overall study hypotheses 3 and 4 (for details, see section "Introduction"). For the multilevel modeling analyses, the proportion of women in each

TABLE 1 | Correlation matrix.

Occupational attribute	People orientation	Things orientation	Verbal demands	Numerical demands	Proportion of women
People orientation	1				0.625**
Things orientation	−0.740**	1			−0.502**
Verbal demands	0.859**	−0.824**	1		0.518**
Numerical demands	−0.158**	−0.053	0.003	1	−0.136*

* $p < 0.05$, ** $p < 0.001$. The coefficients reflect the correlation between occupational attributes and the average proportion of women in all occupations between 2002 and 2011, as well as correlations between ratings of occupational attributes.

occupation and year is the dependent variable. Independent variables are occupations' rated levels of numerical demands, verbal demands, things orientation and people orientation, as well as time (years between 2002 and 2011). For our multilevel models, occupations (unit of analysis in the study) were nested in time. We assumed that the change in female proportion will follow a linear trend over time, although the exact intercepts and slopes were allowed to vary across the 355 occupational titles (level one) and 10 years (level two). This was enabled by defining random effects for individual occupation and follow-up time. Unstructured covariance matrix was assumed in the analysis. The parameters of interest from the MLM models are the fixed effects for time (designating average change in the proportion of women in all Swedish occupations between 2002 and 2011), the fixed effect for occupational attribute (designating the average proportion of women in occupations with a given attribute at the beginning of the study period), and the interaction term between occupational attribute and time (designating the mean rate of change in the proportion of women between 2002 and 2011 in occupations defined by a given attribute).

RESULTS

The 355 occupations were rated by the 15 respondents on each of the four attributes: numerical demands, verbal demands, things orientation, and people orientation. To estimate the internal consistency of the responses, several inter-rater-agreement indexes were computed. Conventional rwg estimates ranged between 0.95 and 0.99, which is expected in this relatively large sample. Following Brown and Hauenstein (2005), we additionally computed awg(j) index which is less susceptible to sample size and scale used. Resulting indices ranged between 0.61 and 0.65 depending on assessed occupational attribute, which is comparable to conventionally adopted threshold of 0.70 used to indicate acceptable inter-rater agreement.

The correlations between the components of occupational attributes are presented in **Table 1**. Given the sizeable inter-correlations obtained, our empirical strategy was adjusted to only examine bivariate associations between occupational attributes and the outcome in linear regression analysis, whereas for the MLM, we considered the effects separately for the two dimensions (orientation vs. demands). As such, the four attributes were never entered in the same model to avoid multicollinearity.

TABLE 2 | Univariable linear regressions.

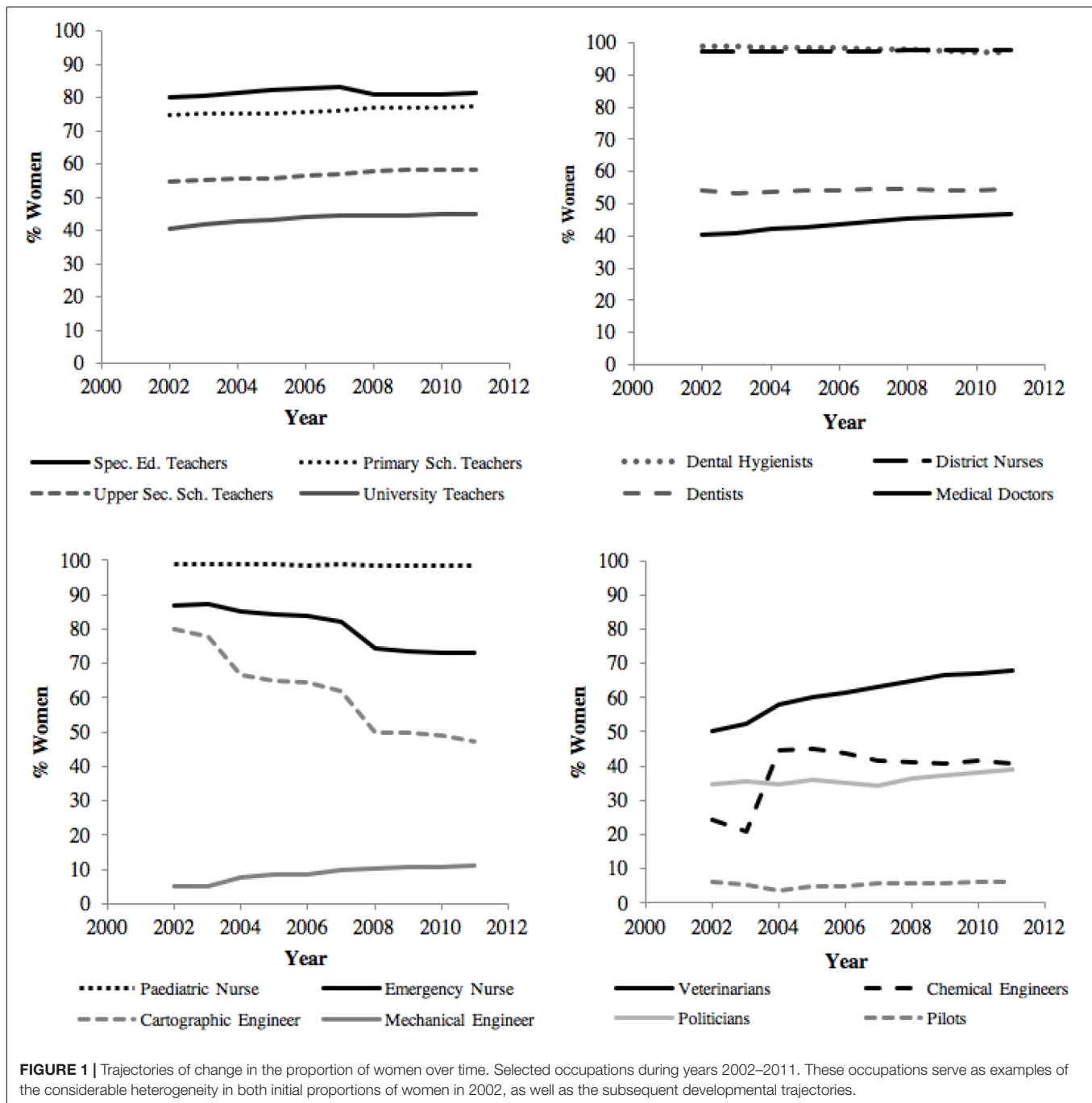
Occupational attribute	β	R^2	p
People orientation	0.208	0.390	<0.001
Things orientation	−0.188	0.252	<0.001
Verbal demands	0.179	0.268	<0.001
Numerical demands	−0.051	0.019	0.010

Results from univariable linear regression analyses for each of the four occupational attributes. Dependent variable: average proportion of women in 2002–2011. Based on four separate linear models. Abbreviations: β , unstandardized beta coefficient, R^2 , coefficient of determination; p , p -value.

Univariable linear regressions were calculated to investigate if the average proportion of women in Swedish occupations between 2002 and 2011 varied in accordance with occupational attributes (see **Table 2** for regression results). All estimates were statistically significant. With an increase of one standard deviation in people orientation, the unstandardized beta-coefficient suggests that the average proportion of women increased by 20.8%. An increase of one standard deviation in things orientation yielded a decrease of 18.8% in the proportion of women. For verbal demands, the proportion of women increased by 17.9% for each increase in standard deviation. Lastly, an increase of one standard deviation in numerical demands showed a 5.1% decrease in the proportion of women.

Between 2002 and 2011, some occupations showed an increase in the proportion of women, some had an unchanged proportion and still others showed a decline (see **Figure 1** for a graphical depiction of selected trajectories over time). Even when examining similar occupations, at times large differences in both gender distributions and trajectories emerge. Given these examples, we next examined the interactions between occupational attributes and time to establish whether the proportion of women changed at a significantly different pace over time depending on occupational attributes.

The estimates for fixed effects (see **Table 3**) showed a significant effect of time, where the overall proportion of women in the labor market increased by 3.1% over 10 years. There was a significant main effect for people orientation, with higher proportions of women working in people-oriented occupations – a finding mirrored in univariable linear models above. However, there was no significant main effect for things orientation on the proportion of women – potentially an artifact of collinearity between people and things orientation ($r = -0.740$). A significant negative interaction between people orientation and time was found. This indicates that women's



relative participation in occupations with high scores on people-orientation was significantly reduced relative to the average rate of change in the proportion of women over the time period. There was no significant interaction between things orientation and time. Random effects of slope, intercept and residual were all significant at the 95% level, suggesting some heterogeneity around the mean estimates reported above.

Detailed results for the association between verbal-numerical demands and occupational gender occupation over time are in **Table 4**. The fixed effects for the intercept and the main effect

of time are the same as reported in MLM Model 1. There was a statistically significant positive main effect of verbal demands on the proportion of women, implying higher proportions of women, on average, in verbally demanding occupations. There was also a significant negative main effect for numerical demands, implying lower proportions of women in occupations high in these demands. Both main effects are consistent with earlier-estimated bivariate linear associations (**Table 2**). No significant interaction effect was found between verbal demands and time. This indicates that women's participation in occupations rated as

TABLE 3 | Mixed linear model: people and things orientation.

Fixed parameters	β	p	CI (95%)	
			Lower	Upper
Time	0.031	<0.001	0.022	0.040
Intercept	0.374	<0.001	0.349	0.398
People	0.196	<0.001	0.154	0.238
People \times time	-0.018	0.024	-0.034	-0.002
Things	-0.025	0.307	-0.073	0.023
Things \times time	-0.015	0.094	-0.033	0.003
Random parameter (Variance)				
Slope (time)	0.007		0.006	0.008
Intercept	0.055		0.047	0.063
Residual	0.001		0.001	0.001

Dependent variable: proportion of women in each occupation and every year between 2002 and 2011. Time was scaled 0–1 with equal spacing for each year, allowing for coefficient to be interpreted as change over 10 years. Abbreviations: β , unstandardized beta coefficient, p , p -value. CI, confidence interval.

TABLE 4 | Mixed linear models: verbal and numerical demands.

Fixed parameters	β	p	CI (95%)	
			Lower	Upper
Time	0.031	<0.001	0.022	0.040
Intercept	0.373	<0.001	0.347	0.399
Verbal	0.179	<0.001	0.148	0.212
Verbal \times time	-0.002	0.789	-0.012	0.010
Numerical	-0.057	0.001	-0.092	-0.023
Numerical \times time	0.011	0.058	0.000	0.024
Random parameter (Variance)				
Slope [time]	0.007		0.006	0.008
Intercept	0.063		0.055	0.074
Residual	0.001		0.001	0.001

Dependent variable: proportion of women in each occupation and every year between 2002 and 2011. Time was scaled 0–1 with equal spacing for each year. Abbreviations: β , unstandardized beta coefficient, p , p -value. CI, confidence interval.

verbally demanding did not vary relative to the average pace of change during this period. A positive interaction effect between numerical demands and time approached statistical significance ($p = 0.058$). This indicates that women's relative participation in numerically demanding occupations may have increased at a faster pace relative to the average rate of change over this 10-year period. Examining random effects indicated that the linear growth rates of women's participation in occupations between 2002 and 2011 varied significantly between occupations.

DISCUSSION

This study found that the Swedish labor market exhibits marked horizontal gender segregation but also that the patterns of said segregation varied over a 10-year period between 2002 and 2011. Certain occupational attributes were associated with occupational gender distribution in Sweden. There was a positive relationship between female representation and the degree of

people orientation and verbal demands, with a larger proportion of women working in occupations ranked high on these attributes. Fewer women, relatively speaking, were represented in occupations high in things orientation and numerical demands, although the association for the latter was weaker. Between 2002 and 2011, the average proportion of women in the Swedish workforce increased by 3.1%. The rate of increase was reduced in highly people-oriented occupations. For numerically demanding occupations, there was a trend toward a larger increase in the proportion of women than the average gain over the time period, although this result only approached statistical significance.

Our findings indicate that perceptions of occupational prerequisites are an important aspect in order to describe patterns of occupational gender segregation. Regarding the verbal-numerical dimension, previous research on cognitive gender differences has shown a slight male advantage in complex mathematics and visuospatial tasks and a female advantage in verbal skills (Reilly, 2012; Weber et al., 2014). Recent research suggests that such differences can affect later gender segregation in educational and occupational choices (Dekhtyar et al., 2018). Our findings are consistent with these patterns in the sense that women were overrepresented in verbally demanding occupations and somewhat underrepresented in numerically demanding ones. However, the current results also show that this occupational pattern may be changing over time in Sweden, as a trend for a slight increase in the proportion of women in numerically demanding occupations was noted. When considering cognitive differences, this is also in line with research showing that women's mathematical performance increases more than men's in economically prosperous and gender equal countries (Guiso et al., 2008; Weber et al., 2014).

The current study is based on the time period 2002–2011 and, when considering change over time, we did not find a similar trend for a stagnation of desegregation that earlier research has showed for preceding decades (England and Li, 2006; Tomaskovic-Devey et al., 2006; Barone, 2011). Using data from a 10-year period made it possible to track both the average change over time, but also to identify heterogeneity in the trajectories and interactions with occupational attributes. Despite an occupation's people orientation being strongly correlated with the proportion of women, the current study shows that the proportion of women in people-oriented occupations showed a reduced pace of change. Considering a trend for a faster growth of female representation in numerically demanding occupations, this could mean that despite the vast gender segregation seen today, Sweden might slowly be heading toward some occupational desegregation. The current results show that patterns of segregation can change over time, which alters the predictive value of specific variables. In other words, despite people orientation being strongly associated with the proportion of women today, our findings suggest that this relationship might weaken with time as women leave and/or men enter these occupations to varying extent.

Occupational gender segregation is influenced by many factors. For instance, cross-national studies have shown that countries that are ranked lower on international measures of gender equality show a higher representation of women in STEM-fields (Charles and Bradley, 2009). The suggested

explanation for this is that women have more to gain from entering these occupations in terms of status and economic resources (Charles and Bradley, 2009). Finland is one of the few countries where girls have reached parity with boys on measures of mathematical abilities (Reilly, 2012), although the country's gender gap in math affinity is one of the largest in international comparison (Charles and Bradley, 2009). It might be that, because of norms of self-expression in post-industrialized countries, girls are less likely to express affinity for math because it is still not in line with current gender schemas (Charles and Bradley, 2009). Another aspect worth noting is gender representation. The representation of women in science fields leads to weaker implicit and explicit gender stereotypes about scientists, in turn leading to even more women entering these fields in the future (Miller et al., 2015).

The current study has the advantage of including all Swedish occupations between 2002 and 2011, as classified by the Swedish Statistics Bureau, where the entire working population between 18–64 years of age is included. However, there are also some limitations. First, the limited number of respondents for the estimation of the occupational attributes, and the fact that these respondents were university students, and not work experts, could be a source of limitation. The reason for selecting students was to mimic the knowledge and the understanding of individuals who are about to embark on an occupational career. Our intention was to replicate the initial screening of the occupational landscape by the future workers who are supposedly looking to match their own skills with the perceived attributes of the careers in question (hence, our request that the students use their initial, spontaneous judgment). Importantly, the estimation of verbal and numerical demands of occupations used here, has previously (Dekhtyar et al., 2018) been found to be related to an existing classification (O*NET) of United States occupational titles (National Center for O*Net Development, 2016). We decided to use our measure of numerical and verbal cognitive demands as not all Swedish occupations could be matched to a corresponding United States equivalent. The internal consistency was high, indicating high rating agreement among our respondents. It is not clear whether a larger number of respondents would have resulted in a more valid or reliable measure, but if it did, the present results would be an underestimation of the true associations between the independent and dependent variables. Taken together, we believe that the ratings of occupational demands (verbal, numerical) and orientation (people, things) are reliable and valid, and correspond well to the perception of young individuals' beliefs about the occupations they are about to select. Secondly, this study uses occupational titles as the unit of analysis, and as such, individual workers' abilities or interests are unobserved here. We observed considerable collinearity between people orientation and verbal demands, which is expected, as working with people is almost synonymous with using one's verbal abilities. Nevertheless, it was our explicit aim to collect measures of both occupational demands and orientation, as they likely capture different facets of occupational attributes. A time

perspective longer than the 10 years investigated here could help better delineate the temporal effects, particularly with respect to structural shocks, policy changes, crises, or other period effects. Finally, the aim of this study was descriptive and was meant to establish association, rather than causation between occupational attributes and changes in horizontal gender segregation. Future studies that attempt to get closer to the causal effect of occupational attributes as well as individual abilities and interests, on career choices, are needed. While experimental approaches may be limited for these questions, techniques using propensity score matching, inverse-probability weighting, or Mendelian randomization approaches could prove especially useful in the future.

In sum, this study shows that occupational attributes aid the understanding of occupational gender segregation. The patterns of segregation change over time, and a growth curve analysis shows a tentative trend toward some desegregation in Sweden.

DATA AVAILABILITY STATEMENT

All datasets generated for this study are included in the article/**Supplementary Material**.

AUTHOR CONTRIBUTIONS

Substantial contribution to the conception of design of the work: IH, JB, and SD. Acquisition of data: SD, IH, JB, and AH. Analysis: IH, JB, and SD, interpretation of data: IH, JB, AH, and SD. Drafting of the manuscript or revising it critically for important intellectual content: JB, IH, AH, and SD. Final approval of the version to be published: IH, JB, AH, and SD. Agreement to be accountable for all aspects of the work: IH, JB, AH, and SD.

FUNDING

Serhiy Dekhtyar acknowledges financial support from Lennart "Aktiestinsen" Israelssons Stiftelse Individ och Samhälle (administered by the Swedish Royal Academy of Sciences). Grant Number: AS2016-0004. The funders had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript. Agneta Herlitz acknowledges financial support from the Swedish Research Council, Grant Number: 2014-02241.

SUPPLEMENTARY MATERIAL

The Supplementary Material for this article can be found online at: <https://www.frontiersin.org/articles/10.3389/fpsyg.2020.00554/full#supplementary-material>

TABLE S1 | Data used in longitudinal analysis. SSYK: occupational title code; women: proportion of women in a given occupation/year; numerical: ranking of a given occupation in terms of numerical demands; verbal: ranking of occupations in terms of verbal demands.

REFERENCES

- Barone, C. (2011). Some things never change: gender segregation in higher education across eight nations and three decades. *Sociol. Educ.* 84, 157–176. doi: 10.1177/0038040711402099
- Blackburn, R. M., Brooks, B., and Jarman, J. (2001). The vertical dimension of occupational segregation. *Work Employ Soc.* 15, 511–538. doi: 10.1177/09500170122119138
- Brown, R. D., and Hauenstein, N. M. (2005). Interrater agreement reconsidered: an alternative to the rwg indices. *Organ. Res. Methods* 8, 165–184. doi: 10.1177/1094428105275376
- Ceci, S. J., Ginther, D. K., Kahn, S., and Williams, W. M. (2014). Women in academic science: a changing landscape. *Psychol. Sci. Public Interest* 15, 75–141. doi: 10.1177/1529100614541236
- Ceci, S. J., Williams, W. M., and Barnett, S. M. (2009). Women's underrepresentation in science: sociocultural and biological considerations. *Psychol. Bull.* 135, 218–261. doi: 10.1037/a0014412
- Charles, M. (2003). Deciphering sex segregation: vertical and horizontal inequalities in ten national labor markets. *Acta Sociol.* 46, 267–287. doi: 10.1177/0001699303464001
- Charles, M., and Bradley, K. (2009). Indulging our gendered selves? Sex segregation by field of study in 44 countries. *Am. J. Sociol.* 114, 924–976. doi: 10.1086/595942
- Correll, S. (2001). Gender and the career choice process: the role of biased self-assessments. *Am. J. Sociol.* 106, 1691–1730. doi: 10.1086/321299
- Dekhtyar, S., Weber, D., Helgertz, J., and Herlitz, A. (2018). Sex differences in academic strengths contribute to gender segregation in education and occupation: a longitudinal examination of 167,776 individuals. *Intelligence* 67, 84–92. doi: 10.1016/j.intell.2017.11.007
- Duncan, T., Duncan, S., and Strycker, L. (2013). *An Introduction to Latent Variable Growth Curve Modeling: Concepts, Issues and Application*. London: Routledge Academic.
- Ellingsæter, A. L. (2013). Scandinavian welfare states and gender (de)segregation: recent trends and processes. *Econ. Ind. Democracy* 34, 501–518. doi: 10.1177/0143831x13491616
- Else-Quest, N. M., Hyde, J. S., and Linn, M. C. (2010). Cross-national patterns of gender differences in mathematics: a meta-analysis. *Psychol. Bull.* 136, 103–127. doi: 10.1037/a0018053
- England, P., and Li, S. (2006). Desegregation stalled: the changing gender composition of college majors, 1971–2002. *Gen. Soc.* 20, 657–677. doi: 10.1177/0891243206290753
- Guiso, L., Monte, F., Sapienza, P., and Zingales, L. (2008). Culture, gender, and math. *Science* 320, 1164–1165.
- Hegewisch, A., Liepmann, H., Hayes, J., and Hartmann, H. (2010). *Separate and Not Equal? Gender Segregation in the Labor Market and the Gender Wage Gap. Institute for Women's Policy Research*. Available online at: <https://iwpr.org/wp-content/uploads/wpallimport/files/iwpr-export/publications/C377.pdf> (accessed March 7, 2018).
- Hyde, J. S. (2014). Gender similarities and differences. *Annu Rev Psychol.* 65, 373–398.
- Lent, R. W., Brown, S. D., and Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *J. Vocat. Behav.* 45, 79–122. doi: 10.1006/jvbe.1994.1027
- Lippa, R. A., Preston, K., and Penner, J. (2014). Women's representation in 60 occupations from 1972 to 2010: more women in high-status jobs, few women in things-oriented jobs. *PLoS One* 9:e95960. doi: 10.1371/journal.pone.0095960
- Melkas, H., and Anker, R. (1997). Occupational segregation by sex in nordic countries: an empirical investigation. *Int. Labor Rev.* 136, 341–364.
- Miller, D. I., Eagly, A. H., and Linn, M. C. (2015). Women's representation in science predicts national gender-science stereotypes: evidence from 66 nations. *J. Educ. Psychol.* 107, 631–644. doi: 10.1037/edu0000005
- National Center for O*NET Development (2016). *O*NET OnLine Help: Find Occupations*. Available at: https://www.onetonline.org/help/online/find_occ (accessed April 17, 2019).
- Nermo, M. (2000). Hundra år av könssegrering på den svenska arbetsmarknaden/A hundred years of sex segregation in the Swedish labor market. *Sociol. For.* 37, 35–65.
- Reilly, D. (2012). Gender, culture, and sex-typed cognitive abilities. *PLoS One* 7:e39904. doi: 10.1371/journal.pone.0039904
- Su, R., Rounds, J., and Armstrong, P. I. (2009). Men and things, women and people: a meta-analysis of sex differences in interests. *Psychol. Bull.* 135, 859–884. doi: 10.1037/a0017364
- Tomaskovic-Devey, D., Zimmer, C., Stainback, K., Robinson, C., Taylor, T., and McTague, T. (2006). Documenting desegregation: segregation in American workplaces by race, ethnicity, and sex, 1966–2003. *Am. Sociol. Rev.* 71, 565–588. doi: 10.1177/000312240607100403
- Weber, D., Skirbekk, V., Freund, I., and Herlitz, A. (2014). The changing face of cognitive gender differences in Europe. *Proc. Natl. Acad. Sci. U.S.A.* 111, 11673. doi: 10.1073/pnas.1319538111
- World Economic Forum (2013). *The Global Gender Gap Report 2013*. Geneva: World Economic Forum.
- World Economic Forum (2014). *The Global Gender Gap Report*. Geneva: World Economic Forum.
- World Economic Forum (2015). *The Global Gender Gap Report 2015*. Geneva: World Economic Forum.
- World Economic Forum (2016). *The Global Gender Gap Report 2016*. Geneva: World Economic Forum.

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright © 2020 Hustad, Bandholtz, Herlitz and Dekhtyar. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.



Alzheimer's Patient Organizations' Role in Enabling Citizenship Projects: A Comparison of the USA, Germany, and the UK

Sayani Mitra* and Silke Schicktanz

Department for Medical Ethics and History of Medicine, University Medical Center Göttingen, Göttingen, Germany

OPEN ACCESS

Edited by:

Hannah Bradby,
Uppsala University, Sweden

Reviewed by:

Guido Giarelli,
University of Catanzaro, Italy
Maria Berghs,
De Montfort University,
United Kingdom

*Correspondence:

Sayani Mitra
sayani.mitra@medizin.uni-goettingen.de

Specialty section:

This article was submitted to
Medical Sociology,
a section of the journal
Frontiers in Sociology

Received: 07 November 2019

Accepted: 04 March 2020

Published: 02 April 2020

Citation:

Mitra S and Schicktanz S (2020)
Alzheimer's Patient Organizations'
Role in Enabling Citizenship Projects:
A Comparison of the USA, Germany,
and the UK. *Front. Sociol.* 5:19.
doi: 10.3389/fsoc.2020.00019

This paper examines how Alzheimer's disease (AD) patient support organizations (POs) located in diverse healthcare regimes enable patients to claim and construct their rights as citizens. Since citizenship rights of people with AD are debated widely, it is important to recognize the role of POs in enabling people to construct citizenship identities. This paper thus examines the factors that shape the citizenship projects of the AD POs. Since collective health-related behavior changes in line with national differences, we compare the biggest AD POs in three starkly distinct healthcare regimes: the Alzheimer's Association in the US (ALZ), the Deutsche Alzheimer Gesellschaft (German Alzheimer's Association) in Germany (DAG), and Alzheimer's Society in the UK (AS), to examine how distinct health policy contexts shape their citizenship projects. Based on our website analysis of the three POs and other related secondary documents, we argue that the way each POs work toward enabling its members to claim rights and assume responsibilities depend upon the nature of healthcare funding and resource allocation for AD care. Since AD involves long-term care, the ways in which the three POs enable the people with AD to secure their care expenses set apart the nature of citizenships enactments.

Keywords: patient organizations, Alzheimer's disease, citizenship, rights, comparative research

INTRODUCTION

Dementia, including Alzheimer's disease (AD) is considered as one of the leading healthcare problems around the world. Patient support organizations (POs) have been playing a cardinal role in addressing this crucial healthcare crisis through their activities of care, communication, and advocacy. But often such engagement remains limited to representation of issues as an act of upholding patients' epistemic authorities rather than concretely engaging in the decision-makings of policies that impact them (Jongsma et al., 2017; Madden and Speed, 2017). Yet POs enable the patients to identify their rights and understand their responsibilities. These often take the form of citizenship projects as they create arenas for its members to perform their identities and claim their entitlements.

Citizenship is concerned about rights and responsibilities of individuals as well as the state (Oliver and Heater, 1994; Bartlett and O'Connor, 2007). By promoting inclusionary practices in the designing of the healthcare benefits (e.g., by joining national health committees or giving advice to politicians) POs enable people, especially the vulnerable ones to exercise the terms of their citizenship (Barnes and Brannelly, 2008). Although the AD movement was initiated by, and

originally intended for the carers rather than the people with AD (Beard, 2004), many AD POs at present publicly identify themselves as carers' and patients' organizations, reflecting a process of hybridization of their claims and recognition of those affected (O'Donovan et al., 2013; Schicktanz et al., 2018). Due to this hybridity of representation and questioning of political citizenships of people with AD (Bartlett and O'Connor, 2007), it is important to recognize and reflect on the factors informing the arenas of citizenships that POs create for both people with AD and their carers. This paper thus examines how the factors that shape the positioning and agendas of the AD POs inform their citizenship projects. So far, research has not addressed how the varying agendas of the POs situated under diverse healthcare systems shape citizenship identities. This paper fills this gap.

Previous studies have shown how collective health-related behavior changes in line with national differences in regulatory policies and infrastructure arrangements (Jasanoff, 2011; Aarden, 2016a,b). For example, BRCA genetic testing "clients" are being configured as consumers purchasing tests in the US, and as citizens who can get state-sponsored access to testing and care in Britain (Parthasarathy, 2005). Variations in POs that represent a cultural fit to their national environments and health markets are therefore expected, even though they have been scarcely researched. But it is important to analyze the differences in order to identify the underlying factors that diversify (concepts of) citizenships across different countries. Thus, we compare three starkly distinct healthcare regimes: the USA, Germany and the UK to examine how distinct health policy contexts inform the citizenship projects of the AD POs. For this purpose, we first discuss the theoretical considerations behind studying the AD PO's role in shaping citizenship. Then we present the findings from a website and secondary literature analysis of three leading POs in three countries to elucidate how each develop distinct citizenship projects due to differences in AD policies and patient rights in their respective countries. This is concluded by a comparative section, identifying the key factors that set these citizenship projects apart.

THEORETICAL BACKGROUND: ROLE OF PATIENT ORGANIZATIONS IN UNDERTAKING CITIZENSHIP PROJECTS

Citizenship has become a key lense in disability studies, which uphold the view that politicization of the personal experience of marginalization could improve people's social situation (Campbell and Oliver, 1997; Bartlett and O'Connor, 2007). Citizenship is thus seen as a status attached to rights as well as a practice through which individuals relate to the community and the state (Prior et al., 1995). Yet the category of citizen is criticized for emphasizing cognitive knowledge (Kontos et al., 2017) that alienates for instance, people with dementia (Post, 2000). Therefore, in order to recognize how AD changes the process of constructing one's citizenship identity, it is important to recognize the different processes influencing citizenship formations.

The ways in which citizenship gets constructed through one's organizational and state affiliation is categorized by Vigoda-Gadot and Golembiewski (2004) and further developed by Baldwin and Greason (2016). They developed four arenas in which citizenship is practiced and contested. These can be used to analyze sociopolitical practices as well as related discourses: (a) Meta citizenship; (b) Macro citizenship; (c) Midi citizenship; and (d) Micro-citizenship. Meta citizenship refers to the actions taken by organizations like POs at a communal and national level to secure political changes for its members and frame people's identities. Macro-citizenship becomes the arena of individual action at communal or national level like volunteering or fundraising that ties individual to a sense of social responsibility. Midi citizenship refers to actions taken at a collective level to influence organizational practices, while Micro citizenship refers to action taken by individuals in interactions with others (Vigoda-Gadot and Golembiewski, 2004; Baldwin and Greason, 2016). In this paper, we use three of these categories developed by Vigoda-Gadot and Golembiewski (2004) and Baldwin and Greason (2016) to analyze PO's citizenship projects. However, we would like to approach these arenas of citizenship formation in context of the 'biosocial identities' of people, especially those living with AD (see Rabinow, 1996, p. 99).

The concept of biological citizenship was developed by Rose and Novas (2005) to understand how biosocial identities shape citizenship rights. It encompasses all other political or social citizenship projects where citizens' beliefs about their biological existence is linked to their social and political practices. Since dementia and AD are seen as causing loss of a person's ability to decide autonomously, to take political responsibility, to navigate through material and social spaces or to consent to their future care- demented person risk losing their basic citizenship rights such as dignity and autonomy (Post, 2000). Therefore, AD POs have a challenging task of enabling people to understand their changing biosocial needs. However, PO are accused of creating an idea of a univocal and stable biology that contradicts the central institution of the biosociety thesis (Lemke, 2015). Although rearticulation of somatic-oriented identities is not the exclusive domain of POs (Lemke, 2015), their advocacy, campaigns, and support services enable patients and caregivers to understand their biological conditions, rights, entitlements and enable them to claim their biological citizenship. In the disability advocacy debate, Hughes (2009) criticizes POs for creating a medicalized concept of self by ignoring the social processes of exclusion and instead politicizing the biomedical diagnosis. However, research elucidates that POs have a central role in resisting the idea of patients as passive and sick by challenging the dominant biomedical paradigm through specific biosocial claims. Studies show how POs constitute biological citizenship by producing politically wanted resources like blood, DNA, medical data etc. through biomedical research to guide the trajectory of knowledge pertaining to the disease (Novas, 2006). They also reconfigure power and knowledge by combining scientific and political discourses Valenzuela and Mayrhofer (2013) and create new forms of solidarities from shared knowledge (Gibbon and Novas, 2007). Since people with AD risk losing their ability to consent to their future care, which could compromise

their dignity and autonomy, the AD POs in general and the three organizations selected for this study in particular have a voluminous task of enabling people to understand their changing biosocial conditions and secure their future medical care needs. Since their goal is to make these medicalized needs and futures recognizable, the POs adhere to a biomedicalized understanding of creating citizenship rights as opposed to a disability model.

We are aware that the ways in which people with AD can construct their citizenship claims depend upon their social situations like age, gender, ethnicity class, race etc. and its impact upon their embodied experiences (see Thomas, 1999). This paper looks at the activities of POs and their agendas to understand how geopolitical locations create different avenues for people's construction of citizenship identities. Therefore, we would not be able to analyze the impact of intersectionalities on citizenship practices at an individual level. Again, Brown et al. (2004) have suggested a 3-fold categorization for POs: (a) Support organizations for improving access to or provision of health care services; (b) constituency-based health movements addressing health inequality and inequity based on citizenship, race, ethnicity, gender, age, class and/or sexuality; and/or (c) embodied health movements addressing disease, disability or illness experience often by challenging science and practice on etiology, diagnosis, treatment, and prevention. In this paper, this categorization does not work or at best the actives of the AD POs that we study fall across the categories.

METHODOLOGY

Selection of POs

In order to examine how the POs in the three chosen countries—US, Germany and UK—create arenas for people with AD to practice their citizenship identities, we analyzed their websites and related secondary documents. Our aim was to understand their publicly stated agendas. We selected three national umbrella AD POs that comprise large membership and are involved in advocacy, support and research: the Alzheimer's Association in the US (ALZ) (<https://www.alz.org/index.asp>), the Deutsche Alzheimer Gesellschaft (German Alzheimer's Association) in Germany (DAG) (<https://www.deutsche-alzheimer.de/>) and Alzheimer's Society in the UK (AS) (<https://www.alzheimers.org.uk/>). Although the term “patient” does not appear in the names or description of any of these associations, we use the term PO as an umbrella category generally encompassing the various kinds of organizations that were established to represent and advocate the collective interests of people with AD and their carers/family.

We chose these three countries for comparison due to their starkly distinct healthcare regimes, based on the classification of healthcare systems drawn by Böhm et al. (2013). According to them, the UK healthcare system constitutes of the National Health Service (NHS) where health-care regulation, financing and service provision are funded by the State through a tax-based system. They classified the US healthcare system as a private health system, where private actors assure the regulation, financing and service provision. The German healthcare system has been classified as a social health insurance system where

healthcare regulation and financing are done by the state through compulsory insurance, but the service provisions are carried out by private institutes.

While such distinctly differing systems place these countries apart, AD care has been in the mandate of the national agenda of these three countries since the past few years. In 2009 the National Alzheimer's Strategy has been published in the UK, in 2011 the National Alzheimer's Project Act (NAPA) was passed in the USA and in 2012 the Local Alliance for People with Alzheimer's was constituted in Germany, which should in 2019 result in a national strategy as announced by the German Health Minister in September 2018.

Analysis of Web-Materials as Documents of Self-Representation

Websites were analyzed as a communication medium that create effects on the users (Bunz, 2001). Analyzing the websites of POs therefore has its merits as it provides an insight into the agenda of the website providers. It is reflective of the activities and achievements of the POs through which they aim to create avenues for people with AD and their carers to identify and claim their rights. We analyzed the websites of the three AD PO using the method of inductive content analysis (Riff et al., 2014) between March and September 2018 (see **Table 1**). We analyzed these websites manually by navigating through each section of their webpage. We created four units of analysis to appropriately capture the PO's role at communal and individual level in creating spaces for enacting citizenship identities. These were: (1) *the PO's relation to the healthcare system*; (2) *the PO's role in ensuring care*; (3) *the PO's involvement in the health policy*; and (4) *the PO's involvement in research* (see **Table 1**). We used these four thematic units to manually search for content in the websites. We selected passages as quotes from the websites and tabulated them under these four units. We coded them manually using open codes. We additionally referred to relevant secondary documents on these POs to substantiate the findings under each unit of analysis. Eventually we arrived at five codes under which we analyzed the activities of each PO. The findings under each code enabled us to identify how the roles of the three POs varied under each units of analysis. A close comparative look at the factors that differentiate the PO's activities from each other enabled us to identify in what ways does the national context influence how POs create arenas for people with AD and their carers to construct their meta, macro or micro citizenships.

RESULTS

Advocating for Change: the Case of US Alzheimer's Association (ALZ)

ALZ operates on the backdrop of a free market dominated health care system (Fox and Lambertson, 2011). The lack of a formal scope for participation of patients in US healthcare delivery during the 1980's gave rise to patient advocacy groups like ALZ who protest and lobby as part of a larger political action (see Tritter and Lutfey, 2009). Due to the privatized healthcare, a primary challenge in front of its patients is finding

TABLE 1 | Inductive content analysis of the AD PO websites.

PO and Country	Thematic Units of Analysis	Quotes (reworded/translated)	Codes
Alzheimer's Association (ALZ), USA	The PO's relations to the healthcare system	Lobby organization	Role
		Finding suitable coverage of their care expenditures	Role
	The PO's role in ensuring care	Secure basic care for people living with AD and help them in their financial planning	Health and social improvement
		List the possible costs and detail the various financial plans and eligibilities	Care cost
		Connect them to community support services for low cost or free AD care	Support
		Offer care services on a "sliding scale"	Support, care cost
	The PO's involvement in the health policy	Diligently work(s) to make AD a national priority	Advocating change
		Better health and long-term coverage to ensure high-quality, cost-effective care	Care cost
		Urging policymakers to take historic steps for addressing the Alzheimer's crisis	Advocating change
		Our network of advocates, and we'll send you timely alerts to take simple actions that will help influence national policy and create widespread awareness of this devastating disease.	Advocating change
		Create public health infrastructure for implementing Alzheimer's interventions	Health and social improvement
	The PO's involvement in research	AD free world	Advocating change
		A breakthrough in AD treatment to attract government investment	Research strategy
		Detection of early onset of AD to reduce cost and out of pocket expenses	Care cost
		Free clinical studies	Care cost
		Don't just hope for cure. Help us find one	Research strategy
Deutsche Alzheimer Gesellschaft e. V.(DAG e.v.), Germany	The PO's relations to the healthcare system	Representative at federal body	Role
		Gain social acceptance	Role
	The PO's role in ensuring care	A life with dignity and independence	Health and social improvement
		Promoting early assistance in care and financial planning before the burden of the disease becomes unmanageable	Care cost
		Improving the participation and representation	Advocating change
		Educate the young people	Advocating change
		Communicates the importance of having a supplementary insurance in accordance to expected funding gap	Care cost, advocating change
	The PO's involvement in the health policy	Ensure patient representation at the political level	Advocating change
		Representation through their drafted statements on bills and legislations	Advocating change
		Draft ethical statements	Advocating change
	The PO's involvement in research	Key focus remains on psychosocial research	Health and social improvement
		Rejects experimental procedures	Research strategy
		Urging people to be involved in the trials only when the line of treatment has proven beneficial for similar diseases.	Research strategy
		Propose to combine evaluated biomarkers and imaging techniques for reliable AD diagnosis	Research strategy
Alzheimer's Society (AS), UK	The PO's relations to the healthcare system	Part of the voluntary health care sector	Role
		Improving personalization of care	Role
	The PO's role in ensuring care	Personalization of AD care	Health and social improvement
		Maximize the effectiveness of the personal budgets	Care cost
		Training staff	Health and social improvement
	The PO's involvement in the health policy	Lobbying for AD rights through major campaigns	Advocating change
		To reach out to everyone from the time of diagnosis to offer help, and deliver a universally accessible support and advice service	Advocating change
	The PO's involvement in research	Breakthrough toward an "AD free world"	Health and social improvement
		Clinical trials and social research	Research strategy
		Research as an "opportunity to make a difference for the future"	Research strategy

suitable coverage of their care expenditures¹. ALZ operates as a lobby organization to change this shortcoming. It started as an organization led by family and carers of people with AD but has transitioned towards giving representation to people with AD, especially while setting their research and advocacy agenda. Since its foundation in 1980, they have been promoting research and over the years have extended support toward financial planning for the affected. ALZ is now listed as one of the voluntary health agencies for the US under the National Health Council, which brings together diverse stakeholders within the health community to address chronic diseases and disabilities².

Financial Planning and the Right Choice of Healthcare

Cost remains a primary concern for people with AD due to the requirement of a prolonged period of care. Given the limited health insurance coverage, ALZ offers advices on basic care and financial planning for AD¹. They list the possible costs, financial plans and eligibilities³. Through their webpage, helplines, face-to-face support groups, educational sessions, online message boards and *Alzheimer's Navigator* tool for individualized care plan, they disseminate information and enable people to foresee a realistic cost⁴. They aim to supplement the healthcare deficits, minimize out of pocket expenses, make people aware of their public entitlements and connect them to community support services for low cost or free AD care⁵. By urging people to make responsible care planning through the choice of the right health insurance like the Medicaid, Madigap Insurance, Social Security Disability Insurance (SSDI) etc. that is appropriate to one's age, social, and employment status⁶, ALZ create arenas that are likely to exercise their micro-citizenships and hence actively manage their present and their biological futures.

As per the Health Care Bill under the Medicare Care Coordination Improvement Act of 2017, innovative care centers are being set up in the USA to test the possibility of offering high cost care at low cost settings⁷. But since Medicare does not cover most long-term care costs⁸, ALZ has set up local care homes as NGOs or charitable trust. They offer AD care services on "sliding scale"⁹ for payments relative to people's income. They also acknowledge the role of the caregiver and sensitize them regarding the quality of life and dignity of people with

AD, especially toward the end of life. These actions are likely to expand the arenas for people to claim their micro- citizenships.

Political Advocacy

ALZ is the leading voice of AD advocacy in the USA and "diligently work(s) to make AD a national priority"¹⁰. Their advocacy slogan is "it's time to act" as they aim to secure "better health and long-term coverage to ensure high-quality, cost-effective care"¹¹. They have developed the Alzheimer's impact movement (AIM), an advocacy wing to influence policy¹². Through their website, they urge the public to become an advocate of AD and even provide online resources to facilitate the process¹³. These initiatives hold the potential of creating spaces within the public imageries and policies for recognition of the meta-citizenships of people with AD and secure their biological futures.

They aim that AD attains the status of a public health priority as the privatized healthcare system is unable to contain its costs. They are a major proponent of the National Alzheimer's Protection Act (NAPA) 2011. It granted people with AD political legitimacy¹². ALZ's policy achievements include the *twenty first Century Cures Act*, which was legislated in order to accelerate the discovery of cures for AD. This legislation also included the *EUREKA Act* to advance research on AD. Another key achievement includes the Family Caregiver's Act 2018 that assists carers. At present, the key priority of the ALZ is the "Building Our Largest Dementia" (BOLD) Infrastructure for Alzheimer's Act to create public health infrastructure for implementing Alzheimer's interventions. These legislative victories bring AD into national limelight and hold the potential for people with AD to construct their meta-citizenships.

Fostering Research

ALZ's vision of an AD free world drives their research agenda. They are the largest non-profit funder of AD research worldwide. As part of their 10-year vision, they are strongly advocating for a breakthrough in AD treatment to attract government investment in research and eventually reforms. At present, they are prioritizing the detection of early onset of AD to reduce cost and out of pocket expenses. Through their research funding, peer-reviewed research (e.g., in leading journal in the field Alzheimer & Dementia), the Research Roundtable bringing together scientist of the pharmaceutical, biotechnology, imaging, and cognitive testing industry; ALZ directs the future of AD research. They claim that these roundtables involve persons affected to ensure that research really meets the need of patients and their families. Hence such spaces create arenas for the people with AD to perform their macro-citizenship rights. However, the extent to which its members set the research agenda is not known and needs further exploration.

ALZ also promotes clinical trial participation through their online matching service called *Trial Match* and lays out the safety

¹<https://www.alz.org/care/alzheimers-dementia-costs-paying-for-care.asp> (accessed March 12, 2018).

²<http://www.nationalhealthcouncil.org/about-nhc/members/alzheimers-association> (accessed March 9, 2018).

³<https://www.alz.org/care/alzheimers-dementia-common-costs.asp>; https://www.alz.org/national/documents/brochure_moneymatters.pdf

⁴<https://www.alz.org/care/alzheimers-dementia-online-tools.asp> (accessed March 12, 2018).

⁵<https://www.communityresourcefinder.org/> (accessed March 12, 2018).

⁶<https://www.alz.org/care/alzheimers-dementia-insurance.asp> (accessed March 12, 2018).

⁷https://www.alz.org/living_with_alzheimers_healthcare_reform.asp#medicare (accessed March 12, 2018).

⁸<https://www.alz.org/help-support/caregiving/financial-legal-planning/medicare> (accessed March 12, 2018).

⁹<https://www.alz.org/help-support/caregiving/care-options/adult-day-centers> (accessed March 12, 2018).

¹⁰https://www.alz.org/about_us_about_us_.asp (accessed March 12, 2018).

¹¹<https://www.alz.org/advocacy/federal-priorities.asp> (accessed March 12, 2018).

¹²<https://alzimpact.org/> (accessed March 16, 2018).

¹³<https://www.alz.org/get-involved-now/advocate> (accessed March 16, 2018).

protocols for participation¹⁴. They state that clinical trials entail risk but follow the same federally regulated ethical and legal codes as other medical practices. The slogan “Don’t just hope for cure. Help us find one” or “Without the participation of people like you, finding a cure is nearly impossible¹⁶”—frames participation in trials as an “urgent help” required without which the mission for finding a cure will never be fulfilled. Thus, ALZ’s strategies assigns macro-citizenship responsibilities of knowledge co-production to people with AD for the betterment of the biosocial group.

Preserving Dignity and Rights: the Case of German Alzheimer’s Association (DAG)

Patient participation and shared decision-making has become an important ideology of the German healthcare system over the past decade¹⁵. Hence, POs engage themselves in a wide spectrum of activities: ranging from small self-help groups to large national advocacy organizations (Geissler, 2011; Beier et al., 2016). In 2004, POs were granted the status of an observer on the Federal Joint Committee that makes important decision about health insurance benefits. All POs in Germany work under two umbrella organizations—the Bundesarbeitsgemeinschaft Selbsthilfe (the Federal Working Group of Self Help Organizations) and the Deutscher Partäitischer Wohlfahrtsverbund (DPWV). They receive a small ratio of public money from the health insurances (Social Security Law V). The German Alzheimer’s Association (DAG) is one of the most politically influential POs working on AD and other dementias in Germany. Founded in 1989, DAG was the first Alzheimer’s organization of committed representatives. They are financed by the Federal Ministry of Foreign Affairs along with their various other funding sources¹⁶. Unlike the AS and ALZ, their main goal is to gain social acceptance for dementia patients and their relatives by promoting a better societal understanding of AD¹⁷. DAG’s advisory board comprises of members with dementia, which could be seen as a significant step toward preserving dignity.

Developing Ways of Better Care

DAG aims toward ensuring “a life with dignity and independence” for people with AD¹⁸. They promote early assistance in care and financial planning for different age-groups before the burden of the disease becomes unmanageable. Through their projects on consolidating the network of contact points or “Making More Participation Available to People with Dementia,” they work toward improving the participation and representation of people with AD in health policies. A key focus of the DAG is to educate the general public especially

young people and the healthcare workers¹⁹ and identify the gaps in knowledge and infrastructure within the present healthcare system.

Through their Alzheimer’s telephone helpline, email, regional chapters and free counseling services²⁰, DAG creates space for people to choose their care planning, which can enable people to construct their micro-citizenships²². The health insurance fund in Germany covers AD care under the long-term care services. However, certain areas of care are not covered by the compulsory long-term care funds and require an extra insurance or out of pocket expenses. Imparting such disease specific information that DAG creates an arena for people to exercise their micro-citizenships and act responsibly toward their biological futures.

Political Advocacy and Healthcare Initiatives

DAG’s key goal is to ensure patient representation at the political level. They consider themselves a lobbyist and a deputy to the government on AD related policy decisions. Despite their observer status in the Federal Joint Committee, the extent of their influence on policy decisions is still unclear. Through their drafted statements on bills and legislations (e.g., on genetic testing, end of life care or advance research directives), they represent the voices of people with AD and their carers²¹. Some of the key bills where they suggested amendments include the Long-term Career Reform and the 4th AMG amendment. They also co-direct (with the Ministry of family affairs and health) the current alliance for a national dementia strategy.

Apart from solicited advices, DAG also critically monitors the healthcare infrastructure. They have criticized the conditions of hospital across the country, which at present are unable to provide a secondary diagnosis of AD²¹ contributing to a very late diagnosis. A unique contribution of DAG is their ethical statements through their working group “Ethics” of the German Alzheimer Society²¹. These ethical recommendations range from issues of dealing with the will of living people, to diagnosis, education or even guidelines for accompanying people in their dying phase and indirectly takes the form of political recommendations. Therefore, they attempt to ethically situate the rights, way of life and entitlements of people with AD in policies and public discourse and enable the recognition of their meta-citizenships.

Research Participation

DAG has problematized the participation of people with AD in biomedical research because of consent issues. They are not averse to research and provide rather small grants mainly for clinical research (e.g., research on the safety and efficacy of drugs) and care research (e.g., feasibility and efficacy of non-drug interventions)²². Their key focus remain on psychosocial research (in the field of Neurobiology, Gerontopsychiatrie

¹⁴https://www.alz.org/research/clinical_trials/find_clinical_trials_trialmatch.asp (accessed March 12, 2018).

¹⁵In 2004, the Federal Government appointed the “Commissioner for Patients of the Federal Government” to represent patient interest www.patientenbeauftragte.de.

¹⁶<https://www.deutsche-alzheimer.de/ueber-uns/projekte.html> (accessed March 12, 2018).

¹⁷<https://www.deutsche-alzheimer.de/ueber-uns.html> (accessed March 12, 2018).

¹⁸<https://www.deutsche-alzheimer.de/angehoerige.html> (accessed March 16, 2018).

¹⁹<http://www.alzheimerandyou.de/> (accessed March 16, 2018).

²⁰<https://www.deutsche-alzheimer.de/unser-service.html> (accessed March 16, 2018).

²¹<https://www.deutsche-alzheimer.de/ueber-uns/stellungnahmen.html> (accessed March 16, 2018).

²²<https://www.deutsche-alzheimer.de/die-krankheit/forschung/aktuelle-forschungsaufrufe.html> (accessed March 13, 2018).

or Nursing Science), prevention, early diagnostic as well as drug development. They have also conducted various social research projects like developing e-learning programme on dementia for relatives²³ or opening multi-generational houses to people with dementia²⁴. At present, they are focussing on improving the situation of young people with dementia and their relatives through the European RHAPSODY programme²⁵. As an organization, they have issued a statement in 1999 on ethics of dementia research that rejects experimental procedures like pre-implantation diagnosis or embryonic or adult stem cell research for finding cure of the disease without knowing its cause. They argue that such procedures breach human integrity and can violate people who are no longer able to consent. They insist on research that investigates the causes of AD in order to eventually find a cure. By focusing on the role of comprehensive diagnostics for an early detection, they aim to arrest the occurrence of the disease. Therefore, DAG creates a protective arena for the performance of macro-citizenship of people with AD by urging them to participate in the trials only when the line of treatment has proven beneficial for other similar conditions. Ethicists have argued that it is the relatively less permissive German ethical and legal discourse that informs the DAG's position on research priorities and grant allocation (Schicktanztanz, 2015).

Fighting for Change: the Case of Alzheimer's Society (AS) in the UK

POs in the UK are substantially involved in health policy making as part of the voluntary healthcare sector under the National Health Service (NHS) (Baggott and Jones, 2014). As per the Ministry of Health guidance and a statutory grants scheme under Section 64 of the Health Services and Public Health Act (Baggott and Jones, 2014, p. 203), the voluntary health care sector in England has a significant role to play in health service delivery. AS is one of the largest Alzheimer's charities in the UK and the NHS England lists them as a certified organization. Since POs funded by the state have been witnessing massive budget cuts, AS operates through a self-help strategy (Baggott et al., 2004). They raise funds through membership and research budgets from corporate partners, foundation and pharmaceutical companies.

Personalization and Participation in Care

As per the Social Care Act 2014, AD care is covered by the social support depending on the assessment carried out by the local healthcare representatives. Following the Care Act 2014, personalization i.e., increased participation of the patients in their care decisions has become a key social care agenda in the UK²⁶. The care initiatives and campaign agendas of the AS reflects

that, "personalization" of AD care has become their motto. As a voluntary sector partner of NHS England on its Integrated Personal Commissioning (IPC), AS is aiming to improve the coordination between officials and users in order to maximize the effectiveness of the personal budgets. A personal budget is money that a local authority allocates to a person who needs care and support in England. Scotland and Wales has a system of direct payment. In order to make personalization effective, AS trains the local authorities to bring cultural and systemic changes²⁷. They urge people with AD to take control over their existing healthcare entitlements and make informed decisions about personal budgets and advanced care directives. Through its personal budget campaigns, online forums, local events, dementia cafes, and toolkit for local authorities; they create arenas for individuals to construct their "micro-citizenship" identities.

Political Advocacy and Initiatives

AS significantly lobbies for AD rights through major campaigns, consultations with Parliamentarians and local events. Following Alzheimer's Society Cymru's successful 45,000 reasons campaign, the Welsh Government decided to prepare the first ever Alzheimer's Strategy for Wales²⁸. AS has also been a major proponent of The Mental Capacity (NI) Act 2016 and is involved in drafting its Code of Practice to be developed by the Department of Health²⁹. This Act will support people with AD to make decisions about their own health, welfare and finance when they have capacity to do so.

They have also been actively involved in the implementation of the Prime Minister's Challenge on Alzheimer's launched in 2012³⁰. It was followed by a second Prime Minister's Challenge of 2015 that pledged to make UK the most AD friendly country and the most suitable place for conducting AD research. Under this scheme they received 5.3 billion pounds Better Care Fund. The Dementia Friends Campaign³¹ is a direct outcome of this fund. Additionally, they have also launched a "New deal on Dementia" to make AD diagnosis available to every British citizen by 2022. As a part of this New Deal, AS aims to achieve a "New Deal on Support" to anyone in need, "New Deal on Society" by mainstreaming Alzheimer's rights and a "New Deal on Research" to find a breakthrough in research³². As they frame it: "Our ambition, by 2022, is to reach out to everyone from the time of diagnosis to offer help, and deliver a universally accessible support and advice service."³³ Such a vast initiative attracting

²⁷https://www.alzheimers.org.uk/info/20023/our_dementia_programmes/260/personal_choice_programme (accessed March 18, 2018).

²⁸https://www.alzheimers.org.uk/info/20226/dementia_strategy_for_wales (accessed March 18, 2018).

²⁹https://www.alzheimers.org.uk/info/20032/legal_and_financial/127/mental_capacity_act (accessed March 18, 2018).

³⁰https://www.alzheimers.org.uk/info/20090/national_policies/46/prime_minister_s_challenge (accessed March 18, 2018).

³¹https://www.alzheimers.org.uk/info/20002/get_involved/1071/dementia_friends (accessed March 18, 2018).

³²https://www.alzheimers.org.uk/sites/default/files/migrate/downloads/alzheimers_society_2017-2022_the_new_deal_on_dementia.pdf (accessed March 18, 2018).

³³https://www.alzheimers.org.uk/download/downloads/id/3384/alzheimers_society_2017-2022_the_new_deal_on_dementia.pdf (accessed March 18, 2018).

²³<https://www.deutsche-alzheimer.de/ueber-uns/projekte/neue-wege-in-der-angehoerigenunterstuetzung.html> (accessed November 1, 2018).

²⁴<https://www.deutsche-alzheimer.de/ueber-uns/projekte/mehrgenerationenhaeuser-fuer-menschen-mit-demenz.html> (accessed November 1, 2018).

²⁵<https://www.deutsche-alzheimer.de/ueber-uns/aktuelles/artikelansicht/artikel/forschungsprojekt-rhapsody-schickt-neuen-online-ratgeber-zu-demenz-im-juengeren-lebensalter-in-den-te.html> (accessed March 16, 2018).

²⁶https://www.alzheimers.org.uk/info/20091/what_we_think/207/personalisation (accessed March 17, 2018).

the attention of policy-makers, scientists as well as families and friends of people with AD offers legitimacy to the care and research needs on AD and provides avenues for constructing the meta-citizenship identities of people with AD.

Investments in Research

AS intensively promotes biomedical research to find a breakthrough toward an “AD free world” as well as social science research to improve quality of life for people living with AD. As a part of its “New Deal on research,” they aim to make the biggest investment in Alzheimer's research by 2022³⁴. They pledged 50 million pounds to set up the UK's first dedicated Alzheimer's Research Institute and have already spent 100 million pounds on pioneering research interventions. They acknowledge the pharmaceutical investments in their research initiatives but lists out an ethical protocol on their relations with commercial organizations in order to strictly regulate such links.

They have various research funding schemes and fund early career researchers. As a part of their research strategy, they lay emphasis on the involvement of patients and public in AD research, which could range from completing questionnaires to taking part in clinical trials, genetic tests or focus group discussions. AS presents research as an “opportunity to make a difference for the future” and not as a must³⁵. Through such appeals they individualize people's responsibility to become active co-producers of knowledge and create arena for them to claim their macro-citizenship identities.

COMPARING THE IMPACT OF DIFFERENT HEALTHCARE SYSTEMS IN SHAPING PO'S CITIZENSHIP

The different healthcare regimes shape the specific care provisions and generate needs of people with AD and their carers, which the POs in each country address through their programmes. However, our comparison of the three PO's care, advocacy and research activities reflect that their key agendas and engagements with people with AD are influenced by each country's health coverage system. The nature of healthcare coverage determines the healthcare entitlements of people with AD. Although both the UK and the US have a national AD plan, and Germany is in the process of drafting one to address its challenges; the structure, nature of funding and governance of the health systems shape the ways in which these AD plans address rights and ontology of the disease. The coverage or funding structure of each healthcare regime i.e., whether it is a privatized or insurance based or public health system, shapes citizens' entitlement and sets the moral and ethical tone of the disease narrative. POs in each country thus create arenas for people with AD and their carers to understand and claim their rights under their existing healthcare provisions. The diversities in PO's activities and engagements opens varied arenas for practicing

and claiming citizenships. Through their care planning, support and advocacy programmes, POs take actions toward securing political changes, run programmes to offer communal support spaces, urge individuals to make efficient care planning and contribute toward their biosocial future by engaging in research. Each of these activities open spaces for enactment of citizenships be it micro citizenship, meta citizenship or macro citizenship. However, since AD involves long-term care, the ways in which the three POs advice and enable the people with AD to plan their care expenses set apart the nature of the arenas within which their citizenships are enacted (see **Table 2**).

In the US, the ALZ focuses on disseminating information on various insurance coverages in order to enable individuals choose and manage their care costs efficiently. They advocate for AD to be seen not just as a disease but as a cause' in order to attract political attention towards the unmanageable expenses of people with AD and their carers. They frame AD as a public health priority and create arenas for recognition of meta-citizenships of people with AD. Prompted by the privatized healthcare system that is still unable to provide AD coverage despite the provisions of the national AD plan, ALZ attempts to enhance the arenas of micro-citizenship by encouraging people to identify suitable insurance or Medicare/Medicaid entitlements. They also fulfill a key care deficit as part of their care programme through their local affordable care home projects. The information disseminated by them has a special focus on managing the cost of care and advocating policy changes toward a future where AD costs are affordable.

ALZ's framing of AD as a public health priority, holds the potential of creating an arena within the healthcare policies and public imageries for recognition of the meta-citizenship of people with AD. Their public engagement activities and awareness drives also work toward bringing in major legislative changes and public health investments. The neo-liberal healthcare infrastructure, overall healthcare deficits and lack of public care initiatives result in the ALZ directly urging its patients to participate in clinical trials as a responsibility toward their biosocial community to bring urgent breakthrough in research. Thus, ALZ's programmes focus on creating economic sustenance and constructs the spaces for performance of citizenships at various levels- micro, macro, or meta.

In Germany, the burden of responsibility upon the patients to claim their rights is not as strong as in the US because the private insurances under the Nursing Care Act covers the care costs of people with AD. However, DAG keeps the patients and relatives informed about the legal and financial necessities of planning their long-term care expenses as the insurance system does not cover long-term AD care costs. They take social initiatives like multi-generational houses to create awareness among the teen-agers and bridge gaps within the existing social care system. Such initiatives can create arenas for people to identify their micro-citizenships. Their observer status in the Federal joint committee, advocacy for bills and reforms as well as critical statements on political resources on AD hold the potential to create arenas for the recognition of meta citizenship of people with AD. Given the importance assigned to personhood within the German ethical discourse

³⁴https://www.alzheimers.org.uk/info/20024/strategy_and_annual_reports/326/our_strategy_2017-2022 (accessed March 18, 2018).

³⁵https://www.alzheimers.org.uk/info/20020/take_part_in_research (accessed March 18, 2018).

TABLE 2 | Comparing the impact of different healthcare systems in shaping PO's citizenship projects.

Health policies by countries	Citizenship projects			Impact of health policies on citizenship projects
	Care	Policy advocacy	Research	
USA: Privatized healthcare system without any universal coverage for AD. NAPA overlooks AD care plan and actions. But at present, Medicare, and Medicaid covers the care of only selected population	ALZ creates arenas for people with AD and caregivers to exercise their micro citizenship by advising on financial planning of care costs, choice of healthcare options, and insurances. They also set up care homes to offer care services on a "sliding scale." They also creates arenas for micro-citizenships through support groups, online message boards, Alzheimer's Navigator that encourages to make efficient healthcare planning to overcome the financial precarity	Through their advocacy and campaigns they frame AD as a public health priority and create arena within the healthcare policies and public imageries for recognition of the meta-citizenship of people with AD	They urge the people with AD to exercise their macro citizenship responsibilities by taking up the responsibility of contributing to research in order to find an urgent cure of AD for the collective	Cost of AD in a privatized healthcare setting alongside lack of universal coverage creates an urgency of recognition of AD as a public health priority. Thus solutions to arrest AD whose cost the healthcare setting would be unable to bear shapes ALZ's initiatives
Germany: Insurance based healthcare system that is semi-public and semi-private. AD is legislated under the Local Alliance for People with Alzheimers Act. AD care is covered by the insurance under Nursing Care Act but long-term care costs require additional insurance	DAG creates arenas for people with AD to exercise their micro citizenship by offering assistance for planning their long-term care costs, which is not covered by the Nursing insurance and requires an extra insurance. They also create arenas of micro-citizenship through their helplines, emails, regional chapters etc. that aims to enable individual to take actions within a collective space	Through their observer status in the Federal joint committee, advocacy for bills and reforms as well as critical statements on political resources on AD, they create arenas for the recognition of meta citizenship of people with AD to ethically integrate their rights within the society	They reject participation of people with AD in experimental research procedure and consider the same to be violating the integrity of people with AD. They uphold their macro-citizenship by enabling their contribution and participation in psychosocial and non-experimental biomedical research to improve lives of people with AD	The DAG's projects centers around bridging the gaps in AD care resulting out of a semi-privatized healthcare system that only partially recognizes the care needs. It works toward representing the actual needs of people with AD better and ensure suitable access to care and planning. Their initiatives and citizenship project thus aim toward better integration of people with AD
UK: State sponsored public healthcare system. The National Alzheimer's Act covers the care for people with AD. As per the Social Care Act 2014, Alzheimer's care is covered by the state and personal budgets are available at the local health centers under the NHS to maximize care. The Mental Health Capacity Act also uphold rights of people for a dignified death	AS creates arenas for people with AD to exercise their micro citizenship by training local authorities and people with AD about better utilization and access of personal budgets and hence improve personalization of AD care. They also create arenas of micro-citizenship through their dementia cafes, virtual groups etc. to offer people knowledge about their existing rights and advance planning for end of life decisions	Through their campaigns and political engagements, they attempt to uphold AD as a healthcare priority and frame people with AD as meta citizens whose biosocial needs require recognition within the existing public health setting for increased integration and healthcare expenditures	They uphold macro-citizenship by encouraging people with AD and their carers to take part in research as an opportunity for individual action that will bring a solution for the entire biosocial community	Identifies gaps in the public healthcare provision and the universal healthcare rights to ensure better utilization of care services and budgets. Personalization and improving the efficiency of existing care and research shapes the initiatives of the AS and their citizenship projects

due to the historicity of Nazi Medicine where psychiatric patients including patients with dementia were killed in so called euthanasia programme (Schicktanz, 2017), DAG's activities focus on making the people with AD and the larger society aware of the dignity and respect that they deserve. Hence, they do not find it appropriate to involve patients in experimental research, who are unable to consent, especially since AD has no proven cause and its results have no direct benefit for the participants. Thus, they create conditional grounds upon which people with AD claim their macro-citizenship rights. These historical forces along with a semi-privatized insurance-based health system that falls short of recognizing specific care needs of people with AD, prompts DAG's efforts toward better integration and recognition of citizenship rights of this biosocial group.

In the UK, the AS aim to ensure patient's "choice and control over their own care and support" through their "Personal Choice Programme"³⁶. Personalization has become an important part of the British healthcare agenda so that the patients become aware of their person-specific needs and make active claims over it. They create arenas for people with AD to exercise their "micro citizenship" by training local authorities and people with AD about better utilization and access of personal budgets. Through their dementia cafes, virtual groups etc. they educate people about their existing rights and advance planning for end of life decisions. These can potentially create avenues for people to assume their individualized responsibilities as micro-citizens.

³⁶<https://www.alzheimers.org.uk/about-us/our-dementia-programmes/personal-choice-programme> (accessed March 18, 2018).

Basic recognition of the disease is key to attract public spending in AD care and research. Hence, through their campaigns and political engagements, they attempt to uphold AD as a healthcare priority and frame people with AD as meta citizens whose biosocial needs require recognition within the existing public health setting. Their research agenda focuses on early detection that stems from ensuring individualized care needs and reducing the overall cost on the public healthcare system. By encouraging people with AD and their carers to take part in research as an opportunity for individual action that will bring a solution for the entire biosocial community, they create avenues for them to uphold their macro-citizenship responsibilities. Thus, ALZ create arenas for citizenship performances- be it micro, meta or macro by urging people with AD to be choice-centric and attempting to better integrate their needs within the current public healthcare system.

Although the AD POs in most western countries resist stigma and exclusion of their patients' and caregivers' and strive to get AD recognized as a healthcare priority, we know that the AD landscape varies between countries and so does the focus of the AD POs. In order to accommodate the national differences, the Alzheimer's Disease International (ADI), which is the international federation of Alzheimer's associations, work toward fighting AD globally by finding the solutions locally. Alzheimer Europe, the consortium under the European Parliament also works to ensure that AD receives a priority at the European level through national solutions. In order to find these national level solutions for factoring in the needs of people with AD at an international level, it is important to understand how distinct national healthcare systems support people's biosocial needs and inform their citizenship experiences at the micro, meta, or macro levels.

CONCLUSION

This paper contributes toward enhancing our understanding of the role of healthcare systems in the PO's agendas and their arenas for citizenship projects. Our findings indicate that since AD involves long-term care, which is expensive, the ways in which the three POs enable the people with AD to plan their care expenses set apart the nature of citizenship enactments. Thus, clearly, the way in which POs create arenas of macro, micro and meta citizenship differ based on how AD care and research is addressed by the respective healthcare systems. From the perspective of organizational sociology, this finding is in line with the neo-institutional approach in the context of "path dependency," which implies institutional persistence and even fixation (Acheson, 2014) that follows historical-contextual rules and architectures (Bevir and Rhodes, 2010). Such path-dependency is also functional, representing "cultural fit," and not (as often seen by neo-institutionalism) a constraint to change due to embeddedness in founding conditions, values, knowledge and structures (Romanelli, 1991; Ramanath, 2009). Our comparison of the activities of ALZ,

DAG, and AS through their websites reflect that their activities foster differential modes of performing or contesting citizenships that are in line with their national socio-ethical context. The POs' agendas are shaped in response to the respective health policies on AD, which constructs the disease narrative. Our analysis shows that the way each of the POs work toward enabling its members to contest the existing disease narrative within the respective healthcare regime depends upon how the health systems are funded and allocate resources for AD care.

However, we recognize that this paper has a methodological drawback as it relies mostly on website analysis. Websites contain proclamatory statements and we do not know how correctly they reflect the reality. But of course, the ideologies and statements are important leads and future research can examine the social realities behind them. Furthermore, we concentrate on the largest and most politically influencing POs in the three respective countries to make the comparison more consistent. By this, we do not cover the whole spectrum of POs existing within these countries. As former studies indicate, some smaller POs have stronger inclusion policies for persons with dementia than these three (Schicktanz et al., 2018). Future course of research could empirically investigate a spectrum of AD POs spread across two or more countries, holding comparative relevance in terms of having similar socio-cultural and economic infrastructure but differing or similar healthcare regimes. Such a research could capture how people with AD and their carers identify as political citizens and biological citizens through their association with the AD POs.

DATA AVAILABILITY STATEMENT

All datasets generated and analyzed for this study are cited in the article/supplementary material.

AUTHOR CONTRIBUTIONS

SM conceptualized, carried out the background research, and drafted the manuscript. SS helped in the conceptualization of the paper, offered background insights and theoretical inputs, commented, and worked on various drafts of the paper.

ACKNOWLEDGMENTS

The authors would like to thank their project partner Karin Jongsma for her insights on the conceptualization of this paper and her comments on earlier drafts. They would also like to thank Aviad Raz for his feedback on the manuscript. The research for this paper was conducted as part of a project funded by the State of Lower Saxony Hannover, Germany, grant 11,762,519,917/14(ZN3010), which the authors gratefully acknowledge. We acknowledge support by the Open Access Publication Funds of the Göttingen University.

REFERENCES

- Aarden, E. (2016a). Constitutions of justice in genetic medicine: distributing diagnostics for familial hypercholesterolemia in three European countries. *Crit. Policy Stud.* 10, 216–234. doi: 10.1080/19460171.2015.1024704
- Aarden, E. (2016b). Translating genetics beyond bench and bedside: a comparative perspective on health care infrastructures for familial breast cancer. *Appl. Transl. Genom.* 11, 48–54. doi: 10.1016/j.atg.2016.09.001
- Acheson, N. (2014). Changes and the practices of actors in civil society: towards an interpretivist exploration of agency in third sector scholarship. *Volunt. Sect. Rev.* 5, 293–312. doi: 10.1332/204080514X14150181037122
- Baggott, R., Allsop, J., and Jones, K. (2004). Representing the repressed? Health consumer groups and the national policy process. *Pol. Polit.* 32, 317–331. doi: 10.1332/0305573041223717
- Baggott, R., and Jones, K. (2014). The voluntary sector and health policy: the role of national level health consumer and patients' organisations in the UK. *Soc. Sci. Med.* 123, 202–209. doi: 10.1016/j.socscimed.2014.07.016
- Baldwin, C., and Greason, M. (2016). Micro-citizenship, dementia and long-term care. *Dementia* 15, 289–303. doi: 10.1177/1471301216638762
- Barnes, M., and Brannelly, T. (2008). Achieving care and social justice for people with dementia. *Nurs. Ethics* 15, 384–395. doi: 10.1177/0969733007088363
- Bartlett, R., and O'Connor, D. (2007). From personhood to citizenship: broadening the lens for dementia practice and research. *J. Aging Stud.* 21, 107–118. doi: 10.1016/j.jaging.2006.09.002
- Beard, R. L. (2004). Advocating voice: organisational, historical and social milieux of the Alzheimer's disease movement. *Sociol. Health Illn.* 26, 797–819. doi: 10.1111/j.0141-9889.2004.00419.x
- Beier, K., Jordan, I., Wiesemann, C., and Schicktanz, S. (2016). Understanding collective agency in bioethics. *Med. Health Care Philos.* 19, 411–422. doi: 10.1007/s11019-016-9695-4
- Bevir, M., and Rhodes, R. (2010). *The State as Cultural Practice*. Oxford: Oxford University Press.
- Böhm, K., Schmid, A., Götz, R., Landwehr, C., and Rothgang, H. (2013). Five types of OECD healthcare systems: empirical results of a deductive classification. *Health Pol.* 113, 258–269. doi: 10.1016/j.healthpol.2013.09.003
- Brown, P., Zavestoski, S., McCormick, S., Mayer, B., Morello-Frosch, R., and Gasior Altman, R. (2004). Embodied health movements: new approaches to social movements in health. *Sociol. Health Illn.* 26, 50–80. doi: 10.1111/j.1467-9566.2004.00378.x
- Bunz, U. K. (2001). Usability and gratifications—towards a website analysis model. *Paper Presented at the Annual Meeting of the National Communication Association*. Available online at: <https://eric.ed.gov/?id=ED458656> (accessed March 18, 2020).
- Campbell, J., and Oliver, M. (1997). *Disability Politics: Understanding Our Past, Changing Our Future*. New York, NY: London: Routledge.
- Donovan, O., Moreira, T., and Howlett E. (2013). Tracking transformations in health movement organisations: Alzheimer's disease organisations and their changing cause regimes. *Soc. Mov. Stud.* 12, 316–334. doi: 10.1080/14742837.2013.777330
- Fox, M. H., and Lambertson, A. (2011). "Empowering health care consumers in the United States," in *Democratizing Health: Consumer Groups in the Policy Process*, eds E. de Leeuw and M. Leahy (Cheltenham: Edward Elgar Publishing), 208–221.
- Geissler, J. (2011). "Health policy in Germany: consumer groups in a corporatist polity," in *Democratizing Health: Consumer Groups in the Policy Process*, eds E. de Leeuw and M. Leahy (Cheltenham: Edward Elgar), 127–142.
- Gibbon, S., and Novas, C. (eds.). (2007). *Biosocialities, Genetics and the Social Sciences: Making Biologies and Identities*. London: Routledge.
- Hughes, B. (2009). Disability activists: social model stalwarts and biological citizens. *Disabil. Soc.* 24, 677–688.
- Jasanoff, S. (2011). *Reframing Rights: Bioconstitutionalism in the Genetic Age*. Cambridge, MA: The MIT Press.
- Jongsma, K., Spaeth, E., and Schicktanz, S. (2017). Epistemic injustice in dementia and autism patient organizations: an empirical analysis. *AJOB Empir. Bioeth.* 8, 221–233. doi: 10.1080/23294515.2017.1402833
- Kontos, P., Miller, K. L., and Kontos, A. P. (2017). Relational citizenship: supporting embodied selfhood and relationality in dementia care. *Sociol. Health Illn.* 39, 182–198. doi: 10.1111/1467-9566.12453
- Lemke, T. (2015). "Patient organizations as biosocial communities? Conceptual clarifications and critical remarks," in *The Public Shaping of Medical Research. Patient Associations, Health Movements and Biomedicine*, eds P. Wehling, W. Viehoever, and S. Koenen (London: Routledge), 191–207.
- Madden, M., and Speed, E. (2017). Beware zombies and unicorns: toward critical patient and public involvement in health research in a neoliberal context. *Front. Sociol.* 2:7. doi: 10.3389/fsoc.2017.00007
- Novas, C. (2006). The political economy of hope: Patients' organizations, science and biovalue. *BioSocieties* 1, 289–305.
- Oliver, D., and Heater, D. B. (1994). *The foundations of citizenship*. Harvester/Wheatsheaf.
- Parthasarathy, S. (2005). Architectures of genetic medicine: comparing genetic testing for breast cancer in the USA and the UK. *Soc. Stud. Sci.* 35, 5–40.
- Post, S. G. (2000). *The Moral Challenge of Alzheimer Disease: Ethical Issues from Diagnosis to Dying*. Baltimore, MD: Johns Hopkins University Press.
- Prior, D., Stewart, J., and Walsh, K. (1995). *Citizenship: Rights, Community and Participation*. Pitman Publishing.
- Rabinow, P. (1996). "Artificiality and enlightenment: from sociobiology to biosociality," in *Essays on the Anthropology of Reason* (Princeton, NJ: Princeton University Press), 91–112.
- Ramanath, R. (2009). Limits to institutional isomorphism: examining internal processes in NGO-government interactions. *Nonprofit Volunt. Sect. Q.* 38, 51–76. doi: 10.1177/0899764008315181
- Riff, D., Lacy, S., and Fico, F. (2014). *Analyzing Media Messages: using Quantitative Content Analysis in Research*. New York, NY: Routledge.
- Romanelli, E. (1991). The evolution of new organizational forms. *Annu. Rev. Sociol.* 17, 79–103. doi: 10.1146/annurev.so.17.080191.000455
- Rose, N., and Novas, C. (2005). "Biological citizenship. global assemblages: technology, politics, and ethics as anthropological problems," in *Global Assemblages: Technology, Politics, and Ethics as Anthropological Problems*, eds A. Ong and S. J. Collier (Oxford: Blackwell Publishing), 439–463.
- Schicktanz, S. (2015). "The ethical legitimacy of patient's organizations involvement in politics and knowledge production: epistemic justice as conceptual basis," in *The Public Shaping of Medical Research. Patient Associations, Health Movements and Biomedicine*, eds P. Wehling, W. Viehoever, and S. Koenen (London: Routledge), 246–265.
- Schicktanz, S. (2017). "The visionary shaping of dementia research: imaginations and scenarios in biopolitical narratives and ethical reflections," in *Planning Later Life*, eds M. Schweda, L. Pfaller, K. Brauer, F. Adloff, and S. Schicktanz (London; New York, NY: Routledge), 205–227.
- Schicktanz, S., Rimón-Zarfaty, N., Raz, A., and Jongsma, K. (2018). Patient representation and advocacy for Alzheimer disease in Germany and Israel. *J. Bioeth. Inq.* 15, 369–380. doi: 10.1007/s11673-018-9871-8
- Thomas, C. (1999). *Female Forms: Experiencing and Understanding Disability*. Buckingham: Open University Press.
- Tritter, J. Q., and Lutfey, K. (2009). Bridging divides: patient and public involvement on both sides of the Atlantic. *Health Expect.* 12, 221–225. doi: 10.1111/j.1369-7625.2009.00566.x
- Valenzuela, H. C., and Mayrhofer, M. T. (2013). The sick as biological citizens? How patient-user organizations reconfigure the field of health and illness/Der Kranke als biologischer Bürger? Wie Patientenorganisationen die Kategorisierung zwischen Gesundheit und Krankheit neu formen. *Österreichische Zeitschrift für Politikwissenschaft*, 311.
- Vigoda-Gadot, E., and Golembiewski, R. T. (2004). "Citizenship behavior and the new managerialism: a theoretical framework and challenge for governance," in *Citizenship and Management in Public Administration. Integrating Behavioral Theories and Managerial Thinking*, eds E. Vigoda-Gadot and A. Cohen (Cheltenham: Edward Elgar), 7–26.

Conflict of Interest: SM and SS declare that the submitted work was not carried out in the presence of any personal, professional or financial relationships that could potentially be construed as a conflict of interest.

Copyright © 2020 Mitra and Schicktanz. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.



Gender Bias in Justice Evaluations of Earnings: Evidence From Three Survey Experiments

Carsten Sauer*

Faculty of Political and Social Sciences, Zeppelin University, Friedrichshafen, Germany

OPEN ACCESS

Edited by:

Guillermina Jasso,
New York University, United States

Reviewed by:

Murray Webster,
University of North Carolina at
Charlotte, United States
Ines Wagner,
Institute for Social Research Norway,
Norway

*Correspondence:

Carsten Sauer
carsten.sauer@zu.de

Specialty section:

This article was submitted to
Work, Employment and Organizations,
a section of the journal
Frontiers in Sociology

Received: 21 June 2019

Accepted: 11 March 2020

Published: 07 April 2020

Citation:

Sauer C (2020) Gender Bias in Justice
Evaluations of Earnings: Evidence
From Three Survey Experiments.
Front. Sociol. 5:22.
doi: 10.3389/fsoc.2020.00022

Previous studies in sociological justice research have found mixed results on the gender bias in justice evaluations of earnings. Some studies report a just gender pay gap favoring men; others do not find this gap. This study investigates the gender bias in justice evaluations by linking it to the inequality structure in which people are embedded. The empirical analyses are based on three factorial survey studies that consist of fictitious full-time employees with varying characteristics, including gender. One study was conducted with social sciences students, and two used population samples of German inhabitants. The results show that social sciences students revealed no gender bias in their evaluations. In the population surveys, both men and women showed a rating behavior favoring male employees. Respondents living in federal states with high actual gender pay gaps produced a larger bias favoring men. The findings indicate that actual inequalities between men and women influence the gender bias in justice evaluations.

Keywords: justice evaluations, just gender pay gap, gender inequalities, status beliefs, factorial survey, German-Germany

1. INTRODUCTION

The *actual* gender pay gap captures the differences in earnings between men and women. The *subjective* gender bias in evaluations of earnings describes complementary differences in justice evaluations of men and women. While the existence of an actual gender pay gap is robustly documented for many countries, previous studies investigating the gender gap in justice evaluations of the earnings of men and women have yielded mixed findings. Jasso and Webster (1997) found a so-called just gender pay gap—the difference between earnings evaluated as just for male and female recipients—in a re-analysis of a factorial survey study conducted by Jasso and Rossi in 1974 (Jasso and Rossi, 1977). Male and female observers assigned higher just earnings to male recipients. In a later factorial survey conducted in 1995, using a student sample, they found only a marginal gap favoring women (Jasso and Webster, 1999). Jasso and Webster (1999) interpreted this finding in comparison to their previous study (Jasso and Webster, 1997) as a possible consequence of changing actual gender pay gaps over time.

I argue that the gender bias in justice evaluations of earnings is an *experience-based bias* that mirrors the gender inequality of the structural context in which individuals are mainly embedded. Distributive justice theories share the basic idea that similar individuals, based on socially defined and valued characteristics, expect similar rewards or earnings. Evaluators perceive justice if this condition is met, and they perceive injustice (either over-reward or under-reward) if this condition is not met because expectations are violated. The status value theory of distributive justice (Berger et al., 1972) and the justice evaluation theory (Jasso, 1978) highlight the importance of comparison

processes within distributive justice judgements that rely on referential structures. These referential structures are general relations between a person's states of characteristics (in this case, male or female) and respective rewards (earnings) that are activated in justice evaluations. People who are embedded in a social structure that is highly gender unequal likely compare rewardees to generalized others (i.e., a typical female or male employee) that reproduce these inequalities. Thus, actors who experience gender inequality are more likely to activate a gender-biased referential structure in justice evaluations and therefore (unconsciously) perceive gender differences as legitimate. According to the mixed results of prior studies, university students who experience more gender equality will more likely activate a referential structure that does not produce gender bias, while members of the general population are more likely to experience gender inequalities over their life courses and reproduce them in their evaluations. If this is true, the difference between students and general populations reported in previous studies should still be detectable with more recent data, and the differences should be generalizable to other subpopulations that are prone to higher or lower gender inequality. In a first step, I therefore investigate whether gender biases still differ between students and the general population, including additional analysis by age and educational groups, and in a second step, I analyze whether differences can be detected between employees working in German federal states with more or less gender inequality.

The investigation of gender bias in earnings is important not only for justice research but also, more generally, for labor market sociology, as these biased attitudes have consequences for the actual behavior of labor market participants. For example, recently, it has become increasingly important to individually negotiate at least parts of one's earnings or other gratifications. In these negotiations it is on the one hand important for employees to formulate claims that yield an appropriate outcome, and on the other hand, supervisors have to evaluate these claims as legitimate. In the negotiation literature, it can be seen that a systematic gender bias is inherent (Dittrich et al., 2014; Kugler et al., 2018), partly because both negotiation parties likely exhibit a double standard for men and women. Discovering the mechanisms behind why people perceive certain income levels to be appropriate or fair for male and female employees sheds light on these processes. Experience-based gender bias questions the appropriateness of the accountability principle usually used to identify the fairness of individual negotiations.

The contribution of this paper is to apply the theoretical explanations offered by Berger et al. (1972) and Jasso (1978) to derive hypotheses about the direction and size of a just gender pay gap in observers' evaluations. By linking gender bias to structural inequality, it generalizes differences between students and the general population and provides tests for other subpopulations that likely produce more or less gender bias in their judgments—i.e., employees working in federal states with high or low gender inequality. Empirically, this is the first study that compares student samples and population samples using similar tools to detect gender biases that allow for the testing of differences for the first time. It therefore provides a continuation

of the research initiated by Jasso and Webster (1997, 1999) with new empirical evidence.

To detect gender biases in justice attitudes, it is necessary to first use a method that allows to find gender gaps. The data collection method used here is a factorial survey design (Rossi and Anderson, 1982; Jasso, 2006), in which respondents evaluated so-called vignettes that described persons varying in multiple characteristics, including gender and gross earnings. These vignette-based justice evaluations can be used to measure the independent impacts of the recipient's gender and other characteristics on the justice evaluations of observers. With respect to this feature, factorial surveys have an advantage over justice measures of individuals' own earnings, as gender can be modeled as uncorrelated with other recipient's characteristics, e.g., occupational status and gross earnings, which are correlated in the real world. Second, it is necessary to compare observers who are embedded in different inequality structures. The empirical analyses, therefore, draw on a sample of social sciences students and two population samples. While the factorial survey module of the student sample and one population sample were identical, the second population sample used a different module and is used to emphasize the robustness of the findings. The social sciences students are embedded in a structural context in which relevant resources are not (or less) correlated with gender, and therefore, gender is unlikely to become a status characteristic in their daily interactions. The respondents in the population samples were sampled in different regions in Germany with differing degrees of earnings inequality between men and women. Thus, it is possible to investigate justice evaluations of people embedded in differing gender inequality structures. The following sections provide the theoretical background of the paper and then introduce the data and present and discuss the findings in light of the literature.

1.1. The Justice Evaluation Process

Questions surrounding distributive justice are part of the research program of the empirical sociological justice literature (Jasso et al., 2016; Liebig and Sauer, 2016) that has been developed over the last 50 years and now has a formalized core mapping the evaluation process. Distributive justice research distinguishes between *reflexive* and *non-reflexive* justice evaluations (Jasso, 2007). In reflexive justice evaluations, people evaluate their own rewards (*observer = recipient*); in non-reflexive justice evaluations, people evaluate the rewards of others (*observer ≠ recipient*). Previous studies on reflexive justice find a gap between the evaluations of men and women, with men expecting higher wages than women (Liebig et al., 2011, 2012; Valet, 2018). However, reflexive justice judgments are based on individuals' own outcomes and are therefore driven by two forces, justice deliberations and self-interest (Younts and Mueller, 2001). For example, only a small fraction of people evaluate themselves as being overpaid (Sauer and Valet, 2013). The impartiality (Jasso et al., 2019) of these reflexive judgments is therefore hardly given. Non-reflexive judgments, on the other hand, are not affected by conflicts of justice perceptions and individuals' own interests because people judge rewards by which they are not affected (especially when people evaluate fictitious others, as is the case in

factorial survey studies). Non-reflexive judgments are, therefore, well suited to investigate justice attitudes and unconscious gender bias in judgments [for a review of the research on non-reflexive justice attitudes using factorial surveys, see Liebig et al. (2015)].

Following justice evaluation theory, in justice evaluation processes, people compare actual rewards to rewards perceived as just or fair (Jasso, 1978, 1980, 1986)¹. The formalized evaluation can be stated as follows (Jasso, 1978):

$$J = \ln\left(\frac{A}{C}\right) = \ln A - \ln C. \quad (1)$$

The justice evaluation J of an observer is equal to the logarithmic ratio of the actual rewards A and the just rewards C of a recipient. The specification assumes comparisons as a central mechanism within justice evaluations. The actual rewards (gross earnings) are directly given, while the just gross earnings are a hypothetical value observers regard as just for given recipients. The just earnings depend on the levels of characteristics observers perceive as important. However, the specification leaves exogenous the substantive content of the just reward function (Jasso, 1980). Jasso and Wegener (1997) specify that the just reward depends on reward-relevant factors x , their weights and their combination. Thus,

$$C = h(x_1, x_2, \dots, x_n). \quad (2)$$

To learn about the content of these factors, theories that provide substantive predictions are useful. This study focuses on the relevance and weight of gender in justice evaluations; thus, predictions about reward-relevant characteristics are required². Reward-relevant characteristics are those that entitle someone to receive a certain amount of rewards. These characteristics can be achieved, such as performance, or ascribed, such as gender (Berger et al., 1977). If these characteristics have a status value, they can be defined as status characteristics (Berger et al., 1977). Status characteristics divide trait carriers into status-high and status-low individuals and entitle status-high individuals to receive higher rewards. The status value is not an intrinsic feature of a characteristic (in this case, gender) but attached to the characteristic by generally shared beliefs. Reward expectations theory connects status characteristics to reward expectations and perceptions of justice and injustice (Berger et al., 1985). Reward expectations are formed based on status characteristics and a referential structure. Berger et al. (1985) distinguish three types of referential structures: categorical referential structures are based on “who you are,” ability referential structures are based on “what you can do,” and performance-outcome referential structures

are based on “what you have done.” Reward expectations theory implies that categorical, ability and performance-outcome characteristics may together determine reward expectations and therefore justice evaluations.

Thus, status characteristics that refer to categorical differences, abilities or inputs are relevant for the observer to estimate the just earnings C of a recipient. Assuming this evaluation process, the justice evaluation stated in Equations (1) and (2) contains three types of characteristics: categorical variables, abilities and inputs. Gender is a categorical difference between recipients. If gender has status value in the eyes of the observer, it will be relevant in the justice evaluation process. It is assumed that the gender gap in just wages found in earlier studies (Jasso and Webster, 1997; Jann, 2008) occurred because gender had a status value, dividing people into status-low and status-high groups. On the other hand, if gender has no status value in the eyes of the observer, it is not a relevant factor for the justice evaluation. The observers produce in this case no just gender pay gap. In other words, the existence, sign and size of a just gender wage gap is connected to the status value of this characteristic. This can be written in a formal equation as follows:

$$J = \beta_1 \text{gender} + \dots + \beta_n \ln A. \quad (3)$$

The term C in Equation (1) is now replaced by characteristics that might be relevant for the justice evaluation, including gender. J is a function of the actual earnings (A) and the characteristics being evaluated as relevant for the assessment of the just reward. The question is now how inequalities between men and women influence the existence ($\beta_1 \neq 0$), sign ($\beta_1 \leq 0$) and size of a just gender pay gap. To link the justice evaluation process to the structural context, a closer examination of the referential structure of comparisons in justice judgments is in order.

1.2. Referential Structures in Comparison Processes

Early formulations of justice evaluation processes identified comparisons as the key mechanism how actors assess the justice or injustice of their rewards. The equity principle states that relative equivalence of two actors' ratios of inputs and outputs ensures perceptions of equity or justice in the eyes of the beholders. However, following the work of Berger et al. (1972), judgements based on comparisons between two individuals are not justice evaluations (e.g., both individuals could be underpaid). It is crucial to obtain a stable referential structure in which the comparisons are embedded. This means that people compare the rewards of specific people (either themselves in reflexive judgments or others in non-reflexive judgments) to a generalized other that represents a typical other for the specific comparison, e.g., a car mechanic or a teacher at a public school. The evaluator assesses then whether the outcome is just or unjust and if it is too high or too low. The rewards of the generalized other represent the typical earnings of similar people, while the normative evaluation of whether earnings are too high or too low is located in the comparison between the actual outcomes and the referential outcomes. Because in Germany, as in many other countries, the gender differences are remarkably

¹The theory is based on the research of Adams (1965), Homans (1974), Berger et al. (1972), and Jasso and Rossi (1977). Many articles provide discussions on different aspects of the theory [see Jasso (1978, 1980, 1981, 1986), Sołtan (1981), Markovsky (1985), Whitmeyer (2004)].

²The combination of these factors addresses interactions between gender and other characteristics, e.g., experience or education. The theory of double standards focuses on these interactions between job-related characteristics, such as competence and performance, and gender (Foschi, 2000); empirical research by Jasso and Webster (1999) shows that these double standards exist in justice evaluations.

high (more on this below), it is likely that gender is perceived as a status characteristic that is attached to higher earnings for men. Thus, the referential structure of individuals in an unequal population is likely to have a gender bias favoring men. Given the assumption that the process can be defined as a gender bias in the referential structure, it is likely that one will find gender gaps in just earnings in evaluators judgments who are themselves embedded in gender-unequal structures, while it is likely that people who experience less gender inequality do not have these biased structures.

Under the assumption of biased referential structures, it can be predicted under which structural conditions gender is likely to be a status characteristic and thereby a relevant factor in the justice evaluation process formulated in Equation (3). Under the structural condition of resource equality, it is likely that gender has no status value; therefore, gender is unimportant for the evaluation process. Status hierarchies are in this case not correlated with gender. In a subpopulation with resource equality, the justice evaluation of the observer should not be affected by the gender of the recipient. The hypothesis refers to the question of the existence of a just gender pay gap.

Hypothesis 1. In a subpopulation with resource inequality (equality) between men and women, it is likely that male and female observers will (not) attach a status value to the characteristic gender of the recipient. Observers (do not) produce a just gender pay gap with their ratings.

Under the structural condition of gender inequality, it is likely that gender has status value. If men are more likely to be resource-rich and women are more likely to be resource-poor, observers attach higher status to male recipients and assign higher earnings to the high-status group even though the recipients do not differ in other characteristics. This high-status group preference is shared by both the advantaged and disadvantaged groups, and accordingly, both male and female observers assign higher earnings to male recipients. The hypothesis refers to the question of the sign of a just gender pay gap.

Hypothesis 2. In a subpopulation in which men earn on average more than women, it is likely that male and female observers will produce a just gender pay gap within their evaluations favoring male recipients.

1.3. Gender Inequality in Germany

The unadjusted gender pay gap is defined as the difference of the average gross earnings of men and women divided by the average gross earnings of men. Usually, the official statistics reporting the unadjusted gender pay gap use the arithmetic mean or the median of hourly or monthly wages of men and women. While the reported gap differs slightly depending on the measure used, the overall pattern is very similar. In Germany, the gender differences in earnings have remained persistently high over the last decade (Hobler and Pfahl, 2019) in comparison to other European countries. In the years 2008 and 2009, when the surveys of this study were conducted, the unadjusted gender pay gap of monthly median earnings in Germany was approximately

21% (see **Table 5**). Within Germany, the gender pay gap varies remarkably at the regional level. The second column of **Table 5** shows the pay gaps by federal state. In federal states located in West Germany (Schleswig-Holstein to Saarland) the gap varied between 18 percent and 28 percent, while in East Germany, the gap varied between 1 and 18% (Berlin included). Thus, there exist remarkable differences between federal states with the strongest divide between federal states located in the eastern and western parts of Germany. The adjusted gender pay gap (under the control of human capital factors and occupation) was approximately 8% (Finke et al., 2017) and remained also relatively stable over the last decade. Thus, people in Germany experience remarkable gender inequality in pay over the life course when they participate in the labor market.

While gender inequality is manifested in the German labor market, the situation is somewhat different for university students, especially social sciences students. The income students obtain for their monthly expenses is on average equal for female and male students (Isserstedt et al., 2010). Moreover, the student sample used in this study revealed no gender differences in study success ($mean_m = 1.26$; $mean_f = 1.15$; $T = 1.27$; $p = 0.20$; $n_m = 697$; $n_f = 998$) measured via self-assessment on an eleven-point rating scale (−5 to +5). The resource endowment (income and performance) was uncorrelated with gender, and it is therefore likely that gender has no attached status value in the referential structure. While students are undoubtedly socialized in a gender-unequal society and gender inequalities also exist at universities, the gender bias based on daily experiences should at least be lower than in other subpopulations. This is underlined by studies that investigate students transition to labor markets and their underestimation of gender discrimination in the workplace (Sipe et al., 2009).

2. MATERIALS AND METHODS

To test the hypotheses stated above, it is necessary to first obtain heterogeneous respondent groups who experience varying degrees of gender inequality. I use data from one student sample and two random samples of the German population (the two population samples are independent of one another and differ in design and are therefore useful to demonstrate the robustness of the findings). Second, one needs an instrument that allows for the analysis of gender bias. Research shows that it is difficult to directly measure gender stereotypes due to social desirability bias and unconscious gender biases that people are unable to express directly. The factorial survey (Auspurg and Hinz, 2014) is a method that permits the detection of gender biases [and more generally sensitive topics, Auspurg et al. (2015)], especially in the case of justice evaluations of earnings (Gatskova, 2013; Auspurg et al., 2017). The following sections briefly describe the respondent samples and provide an overview of the factorial surveys and additional variables used and the analysis technique employed. There are methods reports available that provide additional information on the data used (Sauer et al., 2009, 2011, 2014).

2.1. Respondents

The university student survey (hereafter the *student sample*) was conducted during the summer term in 2008. Students in social sciences from 27 universities throughout Germany were interviewed via computer-assisted web interviews and computer-assisted self interviews in labs and in the presence of research assistants. The questionnaires consisted of the factorial survey module and additional questions on attitudes (after the factorial survey module) and questions on the socio-demographic background of the parents and students' personal situation. The analysis sample consists of 1,734 respondents.

The first population survey (*population sample 1*) was carried out in 2009 and consisted of randomly sampled respondents 18 years of age and older who were interviewed via computer-assisted personal interviews or self-administered interviews (paper and pencil or web interviews). The survey was conducted by a research institution with professional interviewers. The questionnaire consisted of the factorial survey module and additional questions on attitudes (after the factorial survey module) and questions on the socio-demographic background. As factorial survey studies go beyond standard questionnaires, the requirement in the computer-assisted personal interviewing version was to use experienced interviewers. Additionally, on 2 days, training courses were provided by the researchers to show the interviewers how the respondents had to rate the vignette task and how the interviewers had to behave as the respondents rated the vignettes and how to react in the case of questions. The analysis sample consists of 1,411 respondents³.

The data from the second population survey (*population sample 2*) were gathered in 2008 as part of a pretest of the German Socio-Economic Panel (SOEP; Schupp, 2009) via computer-assisted personal interviews. The program of the annual SOEP questionnaire for the following wave is pretested in each summer of the preceding year. The objective of these pretests is to test new modules and modifications of questions. Since 2002, the sample size has been approximately 1,000 respondents and considered representative of the German resident population 16 years of age and older (Siegel et al., 2009). There are two main differences between the pretest and the SOEP main survey. First, all interviews in the SOEP-Pretest are programmed as computer-assisted personal interviews, in contrast to the paper and pencil questionnaires mostly used in the main survey. Second, whereas the main survey is a study of private households, the SOEP-Pretest is a sample of individuals. The pretest sample is not related to the main SOEP, meaning that these respondents are not part of the panel study. The analysis sample consists of 952 respondents.

³In the computer-assisted personal interviews, additional information was collected about the interviewer, e.g., work experience and training attendance, and the interview situations in interviewer questionnaires after each interview. With these pieces of information, it was possible to find those interviews that did not fulfill the requirements for the analysis: interviews were excluded from the analysis sample if respondents did not perform the task on their own but with the help of others. Moreover, three out of 81 interviewers had a tenure of one year or less and did not appear on one of the two training days. Their interviews were not used because they did not fulfill the requirements.

2.2. Factorial Survey

The factorial survey is a survey experiment that presents the respondents brief descriptions of persons or situations that consist of dimensions (e.g., gender, occupation, education) that vary experimentally in their levels. The vignettes of this study consisted of fictitious employees working full time (40 h per week). Each vignette provided information on at least the gender, age, education, and occupation of the recipient described, among other dimensions in more complex vignettes, together with gross earnings. In the terminology of Berger et al. (1972), the vignette dimensions are the characteristics of the recipient, and the gross earnings are the goal object. In the student sample and population sample 1, the number of dimensions (5, 8, and 12 dimensions) and the number of vignettes presented (10, 20, or 30 vignettes for each respondent) were varied in a between-subjects design⁴. Both studies used the same vignettes. An example of a vignette used is shown in **Figure 1**.

In population sample 2, a constant number of dimensions (10) and vignettes (24) was presented. This paper only focuses on five dimensions that were included in all studies⁵. **Table 1** shows the dimensions and levels used for the analyses.

The vignette samples were drawn via a quota design (D-efficient design) under exclusion of illogical or implausible cases (Dülmer, 2007)⁶. Illogical cases are, e.g., medical doctors without a university degree. The sampling technique ensured that the correlation of the gender characteristic and the other characteristics, e.g., occupation or gross earnings, was very low; therefore, no gender pay gap existed in the vignette samples. This is a mandatory requirement to investigate gender bias introduced by the respondents. **Tables 2–4** provide information on the correlation structure of the vignette dimensions used for the analyses. The sampling procedure followed two steps: after sampling the vignettes, they were allocated to different decks (Jasso, 2006) that were randomly assigned to questionnaires that the respondents had to complete. The vignettes of the student sample and population sample 1 were additionally presented in random order for each respondent. This procedure ensures that potential method effects such as learning and fatigue (Sauer et al., 2011) are uncorrelated with substantive contents of the vignettes. Moreover, the respondents could skip vignettes if they did not want to answer. Population sample 2 was embedded in a

⁴The variations were part of a method experiment that investigated the effects of information load and fatigue during the interview. The results show only small effects of information load (number of dimensions) and fatigue (Sauer et al., 2011) that do not affect the results presented here. The respondents were randomly assigned to experimental splits.

⁵Due to the design, the correlations between the gender dimension and the omitted dimensions are very low, and the exclusion of other dimensions from the analysis does not affect the results.

⁶D-efficient designs (Kuhfeld, 2005) are built using a computer algorithm that specifies a sample characterized by a minimal intercorrelation between dimensions (main effects and interaction terms) while also ensuring a maximal variance and balance of the frequency of the dimensions levels. These designs ensure that the influence of vignette dimensions and interaction terms are mutually uncorrelated. In addition, the design features lead to minimal standard errors in data analyses and, therefore, in comparison to other designs (such as random samples), achieve higher statistical "power" and efficiency to reveal the influence of single dimensions. The D-efficiency for all vignette samples was above 90 (ranging from 0 to 100).

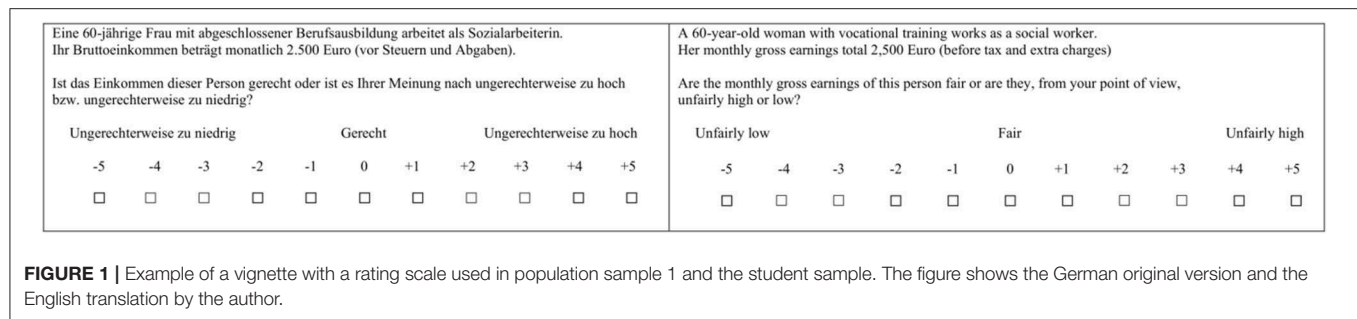


TABLE 1 | Vignette dimensions and levels.

Dimension	Levels
Age	25, 35, 45, 55 years
Gender	Man, woman
Training	Without vocational degree, vocational degree, university degree
Occupation	Unskilled laborer, door(wo)man, locomotive engine driver, clerk, hairdresser, social work professional, computer programmer, electrical engineer, general manager, medical doctor
Earnings per month (Euros)	500, 950, 1,200, 1,500, 2,500, 3,800, 5,400, 6,800, 10,000, 15,000

TABLE 2 | Correlations of vignette dimensions for the student sample.

	(1)	(2)	(3)	(4)	(5)
(1) Gender	1.000				
(2) Age	-0.006	1.000			
(3) SIOPS	-0.022	0.040	1.000		
(4) Training	0.001	-0.002	0.202	1.000	
(5) Earnings per month (ln)	0.028	0.026	0.472	0.087	1.000

SIOPS: Standard international occupational prestige scale.

large pretest, and it was not possible to randomize the order of the vignettes per person; thus, method effects regarding vignette order and substantive effects are not distinguishable. Moreover, it was not possible for the respondents to skip vignettes. The problem is described in greater detail in Sauer et al. (2009, 2014). Thus, interviews with less than 5 min of processing time for the vignette module (less than 12 s of processing time per vignette) were discarded from the analysis sample. The quality of the data from population sample 2 is therefore not as high as it is in the other two samples. Further details on the methodical setup of the factorial survey can be found in Sauer et al. (2009, 2011, 2014). Note that the data from population sample 1 were used for the analysis published in Auspurg et al. (2017) with a different approach and focus.

2.2.1. Rating Task

The respondents' justice judgments of gross earnings were obtained using two different rating procedures. In the student

TABLE 3 | Correlations of vignette dimensions for the population sample 1.

	(1)	(2)	(3)	(4)	(5)
(1) Gender	1.000				
(2) Age	-0.006	1.000			
(3) SIOPS	-0.035	0.035	1.000		
(4) Training	-0.006	-0.001	0.205	1.000	
(5) Earnings per month (ln)	0.022	0.021	0.476	0.086	1.000

SIOPS: Standard international occupational prestige scale.

TABLE 4 | Correlations of vignette dimensions for the population sample 2.

	(1)	(2)	(3)	(4)	(5)
(1) Gender	1.000				
(2) Age	0.007	1.000			
(3) SIOPS	-0.006	0.036	1.000		
(4) Training	0.007	-0.036	0.250	1.000	
(5) Earnings per month (ln)	-0.009	0.018	0.538	0.144	1.000

SIOPS: Standard international occupational prestige scale.

sample and population sample 1, respondents were asked to evaluate each vignette via an 11-point rating scale. The left extreme point (-5) was labeled "unjustly low," the midpoint (0) was labeled "just" and the right extreme point (+5) was labeled "unjustly high." The midpoint was coded as zero, the left segment as negative numbers, and the right segment as positive numbers. Population sample 2 used a three-stage rating task. First, respondents had to judge whether the earnings of a worker were just or unjust. If respondents rated the income as just, they were forwarded to the next vignette. If they rated the income as unjust, respondents judged in a second step whether the income was too high or too low. Third, the respondents stated the level of injustice on a 100-point scale. To achieve consistency with the two other samples—in which positive numbers indicate over-reward and negative numbers indicate under-reward—the ratings were transformed into a new scale in which perfect justice was coded as zero and the ratings that indicated under-reward were coded negatively. Thus, the new scale runs from -100 to 0 to +100. **Figure 2** shows the distributions of justice evaluations by dataset.

In all surveys, the respondents had the opportunity to change their judgments of earlier vignettes when they compared them to

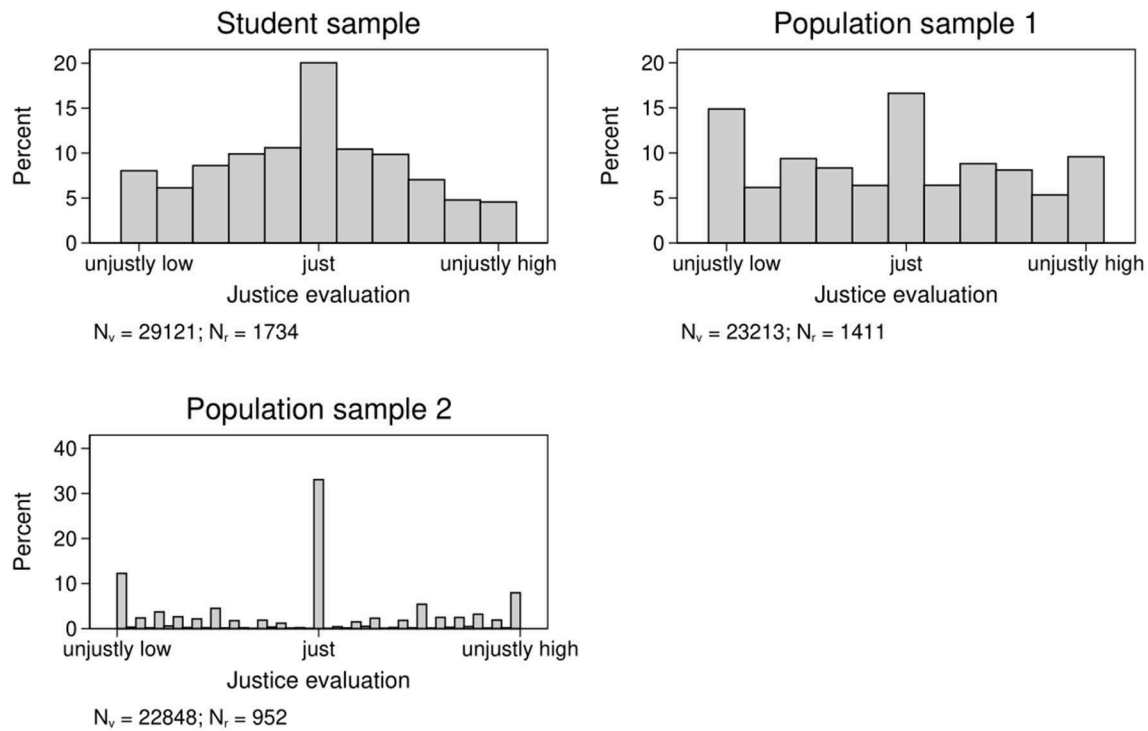


FIGURE 2 | Distributions of justice evaluations by sample.

TABLE 5 | Median monthly earnings and pay gaps by federal state in 2009.

Federal state	Median earnings (Euro)	Gender pay gap (%)
Schleswig-Holstein	2,502	18
Hamburg	3,079	20
Lower Saxony	2,598	24
Bremen	2,921	25
North Rhine-Westphalia	2,810	25
Hesse	2,959	23
Rhineland-Palatinate	2,688	22
Baden-Württemberg	2,941	28
Bavaria	2,779	25
Saarland	2,748	26
Berlin	2,510	18
Brandenburg	2,004	8
Mecklenburg-Western Pomerania	1,907	2
Saxony	1,931	10
Saxony-Anhalt	1,989	1
Thuringia	1,914	4
Total	2,648	21

Source: Federal Statistical Office.

later vignettes and had to adjust the ratings. This possibility was introduced in the description of the vignette task immediately before the first vignette. Moreover, in all survey modes, including

computer-assisted personal interviews, the respondents self-administered their evaluations of the vignettes. In the computer-assisted personal interviews, the interviewers gave the laptop to the respondents and sat opposite them to preclude having the opportunity to view the evaluations.

2.2.2. Context Variables

To test how actual inequality influences evaluations in the general population samples, the average earnings of full-time employees and the actual gender pay gap in different federal states in Germany were attached to the survey data⁷. There exist large regional differences in gender pay gaps across federal states. The lowest pay gap in 2009 for full-time employed people was measured in Saxony-Anhalt at 1 percent. The largest gap was measured in Baden-Württemberg at 28%. **Table 5** provides the median earnings and gender pay gaps in 2009 for each state separately. Therefore, this context variable is useful to compare how the gender of the recipient influences justice evaluations of observers living in different federal states.

2.3. Analysis

Each respondent rated several vignettes; therefore, the data have a multi-level structure. Because the assumption of uncorrelated error terms is violated and standard ordinary least squares

⁷The data on the average earnings of full-time employees are provided by the Federal Employment Agency (Frank and Grimm, 2010, p. 14). The gender pay gaps per federal state are provided by the Statistical Office of Rhineland-Palatinate (Schomaker, 2010a,b).

TABLE 6 | Multiple linear regression of justice evaluations of vignettes on vignette dimensions by sample.

	Student sample	Population sample 1	Population sample 2
Gender [1 = male]	−0.003 (0.007)	−0.068*** (0.007)	−0.074*** (0.008)
Age	−0.018*** (0.003)	−0.024*** (0.003)	−0.019*** (0.003)
SIOPS	−0.014*** (0.000)	−0.014*** (0.000)	−0.011*** (0.000)
Without vocational degree	ref.	ref.	ref.
Vocational degree	−0.204*** (0.008)	−0.127*** (0.008)	−0.095*** (0.010)
University degree	−0.300*** (0.009)	−0.198*** (0.008)	−0.132*** (0.010)
Earnings per month (ln)	0.845*** (0.004)	0.888*** (0.004)	0.856*** (0.004)
Constant	−5.816*** (0.031)	−6.154*** (0.030)	−6.129*** (0.035)
R^2	0.659	0.744	0.664
Vignettes	29,121	23,213	22,848
Respondents	1,734	1,411	952

Standard errors in parentheses. SIOPS: Standard international occupational prestige scale.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ (two-tailed t -tests).

(OLS) regression models would be biased (Cameron and Trivedi, 2009), the data were analyzed via multi-level regressions using a generalized least squares (GLS) estimator⁸. Note that alternative estimation with maximum-likelihood estimators leads to the same results.

The model in Equation (4) specifies that the justice evaluation J of vignette v of the i -th respondent is based on the given dimensions of each vignette. The outcome variable in the following regression models is the z -standardized justice evaluation per vignette. The independent variables are the five dimensions of gender (1 = male), age, education (dummy coded as follows: ref = without vocational degree; 1 = vocational degree; and 2 = university degree), occupation, and gross earnings. Occupation was transformed into a metric scale using the Standard International Occupational Prestige Scale (SIOPS; Ganzeboom and Treiman, 1996). Furthermore, according to the assumed evaluation process of Equation (3), the logarithmic representation of gross earnings was used. The regression Equation (4) displays the models with an attached intercept (β_0), a respondent-specific residual (ν_i) and an error term ϵ_{iv} . Equation (4) was used to estimate the three models presented in Table 6.

$$J_{iv} = \beta_0 + \beta_1 \text{gender} + \dots + \beta_7 \ln \text{earnings} + \nu_i + \epsilon_{iv}. \quad (4)$$

⁸The models were estimated with the statistical software Stata 13.1 (StataCorp, 2011). The user-written program estout (Jann, 2007) was used to format the tables.

Furthermore, I assume that the status value of gender differs between the population samples and the student sample. Additionally, both female and male respondents in the population samples are assumed to have similar status beliefs about gender. Equation (5) includes in addition to the gender of the vignette person (gender^v) and the other dimensions, the gender of the respondent (gender^r) and a cross-level interaction term. Equation (5) was used to estimate the results presented in Table 7.

$$J_{iv} = \beta_0 + \beta_1 \text{gender}^v + \beta_2 \text{gender}^r + \beta_3 \text{gender}^v \text{gender}^r + \dots + \nu_i + \epsilon_{iv}. \quad (5)$$

To illustrate the differences in evaluations between samples and male and female respondents the transformed b -coefficients estimated in Equation (5) will be presented in Figure 3. The figure shows how much more (in percentages) the fair earnings would be for male vignette persons compared to female vignette persons. The 95% confidence intervals (CIs) were calculated using the Delta method (Hole, 2007).

Additionally, the study assumes that there are differences between people living in federal states with high and low gender inequality. Thus, there should be an interaction effect between the vignette dimension gender and the actual gender pay gap in the federal state. Equation (6) includes the vignette dimensions, the structural context (the actual gender pay gap (GPG) and the average earnings per federal state), and the cross-level interaction between the vignette person's gender (gender^v) and the gender pay gap in the federal state ($GPG^{\text{fed.state}}$). The analysis sample was restricted to those respondents who were full-time employed because gender pay gaps were available only for full-time employees, so they directly experienced the difference in their daily interactions. The results are presented in Table 8. Additionally, the interaction effects were estimated separately for male and female respondents.

$$J_{iv} = \beta_0 + \beta_1 \text{gender}^v + \beta_2 GPG^{\text{fed.state}} + \beta_3 \text{gender}^v GPG^{\text{fed.state}} + \dots + \nu_i + \epsilon_{iv}. \quad (6)$$

3. RESULTS

3.1. Just Gender Pay Gap in Vignette Evaluations

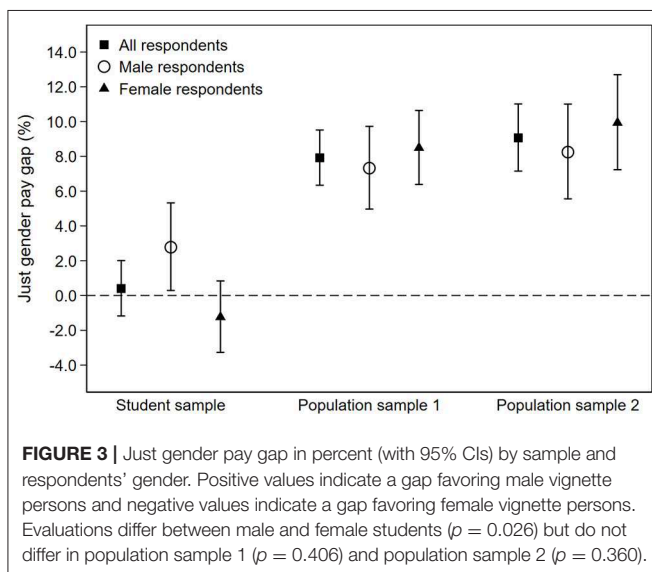
The estimates of the regression models for the different respondent samples are presented in Table 6. First, the focus is on the effect of the gender of the vignette person on the justice evaluations for each sample. In the student sample, the effect of gender on the justice evaluation is insignificant, which indicates that minor importance is attached to this dimension. Students evaluated the justice of earnings of the vignette persons without a focus on whether the described person was male or female. The second model in Table 6 provides the estimates for population sample 1. The effect of the gender dimension is highly significant. The negative coefficient indicates that male recipients were more often evaluated as under-rewarded than female recipients. In other words, respondents produce with their ratings a just gender

TABLE 7 | Multiple linear regression of justice evaluations of vignettes on vignette dimensions and gender of respondent by sample.

	Student sample		Population sample 1		Population sample 2	
	(1)	(2)	(3)	(4)	(5)	(6)
VIGNETTE LEVEL						
Gender ^v [1 = male]	−0.003 (0.007)	0.009 (0.009)	−0.068*** (0.007)	−0.073*** (0.009)	−0.074*** (0.008)	−0.082*** (0.011)
Age	−0.018*** (0.003)	−0.018*** (0.003)	−0.024*** (0.003)	−0.024*** (0.003)	−0.019*** (0.003)	−0.019*** (0.003)
SIOPS	−0.014*** (0.000)	−0.014*** (0.000)	−0.014*** (0.000)	−0.014*** (0.000)	−0.011*** (0.000)	−0.011*** (0.000)
Without vocational degree	ref.	ref.	ref.	ref.	ref.	ref.
Vocational degree	−0.204*** (0.008)	−0.203*** (0.008)	−0.127*** (0.008)	−0.127*** (0.008)	−0.095*** (0.010)	−0.095*** (0.010)
University degree	−0.300*** (0.009)	−0.300*** (0.009)	−0.198*** (0.008)	−0.198*** (0.008)	−0.132*** (0.010)	−0.132*** (0.010)
Earnings per month (ln)	0.845*** (0.004)	0.845*** (0.004)	0.888*** (0.004)	0.888*** (0.004)	0.856*** (0.004)	0.856*** (0.004)
RESPONDENT LEVEL						
Gender ^r [1 = male]	−0.052*** (0.013)	−0.036* (0.015)	−0.005 (0.013)	−0.011 (0.014)	0.020 (0.015)	0.012 (0.017)
CROSS-LEVEL INTERACTION						
Gender ^r × gender ^v		−0.031* (0.014)		0.011 (0.013)		0.015 (0.015)
Constant	−5.795*** (0.031)	−5.801*** (0.031)	−6.152*** (0.030)	−6.150*** (0.031)	−6.138*** (0.035)	−6.135*** (0.036)
R ²	0.659	0.659	0.744	0.744	0.664	0.664
Vignettes	29,121	29,121	23,213	23,213	22,848	22,848
Respondents	1,734	1,734	1,411	1,411	952	952

Standard errors in parentheses. SIOPS: Standard international occupational prestige scale.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ (two-tailed t -tests).



pay gap favoring men, as found by Jasso and Webster (1997). The third model in **Table 6** provides the coefficients for population sample 2. As in the previous model, the effect of the gender

dimension is negative, indicating rating behavior preferring male recipients. A test for different b coefficients of gender between the two population samples ($gender \times sample$) with a pooled analysis reveals no statistically significant difference ($\chi^2 = 0.83$; $p = 0.369$), thus indicating a robust result due to its occurrence in two independent population samples. On the other hand, the tests between the student sample and population sample 1 ($\chi^2 = 37.18$; $p < 0.001$) as well as population sample 2 ($\chi^2 = 49.61$; $p < 0.001$) revealed significant differences.

The other coefficients and their interpretation are reported briefly as follows: the effect of a vignette person's age is negative and highly significant, meaning that older vignette persons were evaluated more often as under-rewarded than younger vignette subjects. This indicates that respondents reward seniority and potential work experience. The effect of the SIOPS has a significantly negative value, meaning that those vignette persons described by working in occupations with higher prestige scores were evaluated as more under-rewarded than those with lower scores (occupation status reward). The effects of vocational and university degrees are also significantly negative. The reference category is the dimension level without vocational degree. According to the respondents, the vignette persons who have a higher level of formal education should gain higher returns

TABLE 8 | Multiple linear regression of justice evaluations of vignettes on vignette dimensions and context variables by sample (full-time employees).

	Population sample 1			Population sample 2		
	(1)	(2)	(3)	(4)	(5)	(6)
VIGNETTE LEVEL						
Gender ^v [1 = male]	−0.056*** (0.011)	0.031 (0.038)	0.031 (0.039)	−0.070*** (0.014)	0.014 (0.041)	0.014 (0.041)
Age	−0.023*** (0.005)	−0.022*** (0.005)	−0.022*** (0.005)	−0.023*** (0.006)	−0.023*** (0.006)	−0.023*** (0.006)
SIOPS	−0.015*** (0.000)	−0.015*** (0.000)	−0.015*** (0.000)	−0.012*** (0.000)	−0.012*** (0.000)	−0.012*** (0.000)
Without vocational degree	ref.	ref.	ref.	ref.	ref.	ref.
Vocational degree	−0.121*** (0.014)	−0.122*** (0.014)	−0.122*** (0.014)	−0.093*** (0.018)	−0.093*** (0.018)	−0.093*** (0.018)
University degree	−0.188*** (0.014)	−0.188*** (0.014)	−0.188*** (0.014)	−0.126*** (0.018)	−0.127*** (0.018)	−0.127*** (0.018)
Earnings per month (ln)	0.910*** (0.006)	0.910*** (0.006)	0.910*** (0.006)	0.893*** (0.008)	0.893*** (0.008)	0.893*** (0.008)
RESPONDENT LEVEL						
Gender ^r [1 = male]	0.007 (0.021)	0.007 (0.021)	0.016 (0.024)	0.076** (0.026)	0.076** (0.026)	0.086** (0.029)
STRUCTURAL CONTEXT						
Average gross earnings of Fed. State	−0.230** (0.084)	−0.230** (0.084)	−0.230** (0.084)	−0.254* (0.108)	−0.253* (0.108)	−0.253* (0.108)
Gender pay gap (GPG) Fed. State	0.010 (0.039)	0.030 (0.040)	0.029 (0.040)	0.029 (0.049)	0.049 (0.050)	0.048 (0.050)
CROSS-LEVEL INTERACTION						
Gender ^v × GPG Fed. State		−0.039* (0.017)			−0.040* (0.018)	
Female ^r : gender ^v × GPG Fed. State			−0.034+ (0.018)			−0.034+ (0.020)
Male ^r : gender ^v × GPG Fed. State			−0.042* (0.017)			−0.043* (0.019)
Constant	−5.736*** (0.159)	−5.777*** (0.160)	−5.783*** (0.160)	−5.782*** (0.202)	−5.825*** (0.203)	−5.830*** (0.203)
R ²	0.755	0.755	0.755	0.680	0.681	0.681
Vignettes	7,788	7,788	7,788	6,744	6,744	6,744
Respondents	483	483	483	281	281	281

Standard errors in parentheses. SIOPS: Standard international occupational prestige scale.

+ $p < 0.10$ * $p < 0.05$, ** $p < 0.01$, *** (two-tailed t -tests).

from their work (educational reward). Finally, the effect of gross earnings is positive: the more a vignette person earns, the more often respondents rated this person as over-rewarded, holding other dimensions equal.

In sum, age, education, occupation, and the associated earnings provided information on the recipients that all respondents used in their justice evaluation. There seems to be general agreement on the importance of these specific characteristics in justice evaluations of earnings; the coefficients are very similar. The only exception is the gender of the vignette persons, which was not important for students but crucial for the respondents in the two population samples. One must bear in mind that the vignettes in the student sample and population sample 1 were designed equally, so differences can be attributed

to rating behavior and not to design elements. On the other hand, the rating task differed between population sample 1 and population sample 2; thus, their similar evaluation patterns indicate reliable results and a robust design.

3.2. Just Gender Pay Gap by Respondent Gender

The results in **Table 7** provide information on the overall difference between respondents in the student sample and the population samples. To gain insights into whether these rating patterns were similar for both male and female respondents, as suggested by Hypothesis 2, respondents' gender was included in the regression. The models for the different samples are provided in **Table 7**. Models 1 and 2 report the coefficients for the student

sample. Model 1 shows that the effect of respondents' gender on the justice evaluations is significantly negative, meaning that male students evaluated, on average, the vignettes as more unjustly low than female students. The interaction coefficient between the gender of the vignette person and the gender of the respondent in Model 2 indicates whether there were differences in rating behavior between men and women. The interaction effect is significantly negative, meaning that the rating behavior of male and female students differed with respect to the gender of the vignette person. Male students showed a tendency to favor male recipients ($b = 0.021$; $\chi^2 = 4.10$; $p = 0.043$), whereas female students showed an insignificant tendency to favor female recipients ($b = 0.009$; $\chi^2 = 1.08$; $p = 0.299$). Thus, male and female students did not account for gender similarly in their justice evaluations as it would be the case when it was a status characteristic for both groups. Models 3 and 4 show the coefficients for population sample 1. Model 3 indicates that male and female respondents evaluated the vignettes on average to an equal extent as being just or unjust. The interaction effect in Model 4 is insignificant, meaning that male and female respondents both produced to the same extent a just gender pay gap favoring male recipients in their evaluations. Models 5 and 6 show the coefficients for population sample 2. The results are very similar to those for the first population sample and are in line with Hypothesis 2.

Figure 3 shows the transformed b-coefficients of the regression models with the 95% confidence bars for each sample by gender. The graph highlights the different evaluation patterns between participants of the student sample and those of the two population samples. Moreover, it shows again high consistency of evaluations of the population samples.

3.3. Just Gender Pay Gap and Structural Context

To investigate how structural differences shape justice perceptions, the following analyses focus on the two population samples. The analysis was restricted to full-time employed respondents as they were directly affected by the actual gender pay gaps in the different federal states. The results are presented in **Table 8**. Models 1 to 3 show the coefficients for population sample 1. Model 1 includes the structural variables of average gross earnings and gender pay gap per federal state. The effect of average gross earnings is significantly negative, meaning that respondents living in federal states with high average earnings evaluated the gross earnings described in the vignettes more often as unjustly low compared to those respondents living in federal states with lower average earnings. This reflects differing referential structures with higher referential earnings of observers from high-income federal states. The gender pay gap in a federal state did not directly affect the justice evaluations. The second model includes the interaction term between the vignette person's gender and the gender pay gap in the federal state. The effect is significantly negative, meaning that the larger the gender pay gap in the federal state was, the larger the gender pay gap produced by respondents' ratings. The main effect of the vignette dimension of gender is insignificant, indicating

that there was no gender bias in the evaluations if the actual gender pay gap was zero. The third model shows the coefficients of the three-way interaction with respondent's gender for male ($\chi^2 = 6.17$; $p = 0.013$) and female ($\chi^2 = 3.60$; $p = 0.058$) respondents separately. Again, the rating pattern was similar for male and female respondents ($\chi^2 = 0.52$; $p = 0.472$). Models 4 to 6 show the coefficients for population sample 2. The effects are very similar to those described above; again, the interaction effects in Model 5 and Model 6 are negative. Moreover, all coefficients are similar in both samples, even though the rating task was different, which indicates stable results.

3.4. Robustness of Results

One could argue that the actual gender pay gaps are especially salient for respondents who are actively participating in the labor market. Restricting the results presented in **Tables 6, 7** to full-time employees yields similar results (as can also be seen in Models 1 and 4 of **Table 8**). Additional analyses with all respondents—not restricted to employed respondents—similar to those presented in **Table 8** revealed mixed results. While the findings are reproducible with full population sample 2, they are not reproducible with full population sample 1 (gender pay gap of the federal state is statistically insignificant, although the coefficients have the same sign).

Moreover, student samples and general samples do not only differ by the structural conditions in which respondents are embedded. The main differences are that respondents in general samples are on average older and less well educated. Therefore, the findings presented above could reflect age or cohort as well as education effects. To test the robustness of the results of the models presented above, **Table 9** shows the pooled analysis of the differences between the student and the population samples with restricted samples. The first model only considers respondents under the age of thirty; the second model restricts the analysis sample to respondents with a higher secondary school degree. In both models, there is a significant interaction effect between the gender of the vignette person and the subpopulation (student vs. non-student). The interaction effect eliminates the main effect of gender, meaning that gender is a relevant characteristic for young people or people with higher secondary education who are not students but has no impact on judgments when respondents are students. These findings resemble the results presented above and emphasize that it is likely that it is not the differences in age and education but the social contexts in which people are embedded and spend a crucial part of their lives.

4. DISCUSSION

This study investigated justice evaluations of earnings for male and female employees and linked them to actual inequalities. The goal was to explain the mixed results reported in previous studies on the just gender pay gap in non-reflexive justice evaluations (Jasso and Webster, 1997, 1999) by using predictions of sociological justice theories (Berger et al., 1972; Jasso, 1978, 1980; Jasso and Webster, 1997). The study assumed that actual gender inequalities lead to biased referential structures that typically associate men with higher earnings. The status value

TABLE 9 | Multiple linear regression of justice evaluations of vignettes on vignette dimensions by age and education (all samples).

	30 years and younger	Higher sec. degree
VIGNETTE LEVEL		
Gender ^v [1 = male]	−0.057*** (0.013)	−0.055*** (0.010)
Age	−0.017*** (0.003)	−0.019*** (0.002)
SIOPS	−0.013*** (0.000)	−0.014*** (0.000)
Without vocational degree	ref.	ref.
Vocational degree	−0.195*** (0.007)	−0.182*** (0.007)
University degree	−0.284*** (0.008)	−0.262*** (0.007)
Earnings per month (ln)	0.831*** (0.003)	0.843*** (0.003)
RESPONDENT LEVEL		
University student	−0.026 (0.016)	−0.017 (0.013)
CROSS-LEVEL INTERACTION		
Gender ^v × University student	0.056*** (0.014)	0.052*** (0.012)
Constant	−5.723*** (0.030)	−5.795*** (0.026)
R ²	0.660	0.671
Vignettes	36,505	42,288
Respondents	2,103	2,434

Standard errors in parentheses. SIOPS: standard international occupational prestige scale.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ (two-tailed t -tests).

attached to male recipients reproduces gender inequalities in justice judgments of men and women. Thus, the direction and size of a just gender pay gap depends on actual inequalities people experience in their daily lives. The analysis was based on factorial survey studies conducted with one student sample and two population samples. The results show that male and female students did not produce a just gender pay gap with their evaluations. Social sciences students are an example of a more gender-equal subpopulation. In this population, it is less likely that gender has status value and therefore is not a relevant characteristic within the justice evaluation process. One must bear in mind that students are not only embedded in the structural context “university” but are also affected by socially shared attitudes toward gender in other contexts of social life. Therefore, they also experience gender inequalities in other contexts. However, their main arena of daily interactions in which status hierarchies emerge and spread is likely to be within the university with other students. As a limitation, gender equality may not apply to students in other subjects, as there could be differences that correlate with gender. The result is in line with previous research (Jasso and Webster, 1999) that also found only marginal differences in the ratings of male and female

students. The difference is that in the previous study (Jasso and Webster, 1999), male and female students showed a tendency to favor female recipients.

The respondents of both population samples produced a just gender pay gap favoring male recipients. This gap was equal for male and female observers. The reason is that in a population with gender inequalities, it is likely that gender has status value and is therefore relevant in the justice evaluation process. Germany is a country in which a significant gender gap in earnings and income persists; therefore, the German population is an example of a structural context of substantial inequality between men and women. Although only a share of respondents participate in the labor market, these status differences are shared beliefs in wide parts of society because they have spread throughout the population. The fact that male and female respondents showed equal evaluation patterns is in line with findings in previous factorial survey research using a population sample (Jasso and Webster, 1997). Other factorial survey studies also found a gender gap in ratings (Jasso and Rossi, 1977; Alves and Rossi, 1978; Shepelak and Alwin, 1986; Jann, 2008; Adriaans et al., 2020).

The analysis of full-time employees resembled the findings of the complete population sample. Full-time employees directly experience inequalities in their goal-oriented daily interactions at their workplaces. There exist regional differences in the gender pay gap. The results show that the gender pay gap that observers experience influences their evaluations regarding the recipient's gender. Observers produced higher gaps in their ratings if they lived in federal states with a high actual gender pay gap. This evaluation behavior was measured for male and female full-time working observers in both population samples. The experienced structural inequalities between men and women affect justice attitudes toward gender. As these findings were replicated with two independent surveys, it is likely that these are reliable results.

A further note is that in all three datasets, there were similar effects for the other dimensions, indicating consensus regarding expected rewards for inputs and abilities such as education, occupation, and age. These findings are in line with the results of earlier studies (e.g., Jasso and Rossi, 1977; Alves and Rossi, 1978; Jasso and Meyerson Milgrom, 2008; Gatskova, 2013).

This research has limitations. First, it was assumed that people experience gender bias in their daily lives. However, future research could directly test the effects of daily interactions in the workplace or within an organization, as they are important for the emergence and spread of status beliefs and for justice evaluation processes. Therefore, not only data on justice perceptions but also information on the interactions of men and women in the workplace and organizations and on the inequality and power structures would be useful. Moreover, the comparisons between different subpopulations are based on cross-sectional data. The assumption is that contexts shape justice attitudes, meaning that students and employees change their attitudes as they come into other contexts. To test this underlying assumption, longitudinal data would be useful to separate changes in justice attitudes with respect to gender from differences between observers. It is likely that people change their attitudes when they leave the

university and enter the labor market and unconsciously learn the new inequality structure and thereby change their referential structure. Therefore, research on this transformation process using survey experiments would be especially useful. Finally, the influence of gender inequality on justice evaluations was tested via regional pay gaps in **Table 8**. However, as the differences are mainly differences between East Germany and West Germany, one could also argue that the differences occur due to cultural differences between people who were socialized in different systems and societies (see, Lang and Groß, 2020). Future research could delve deeper into gender differences by taking into account family structures, motherhood (England et al., 2016), and household responsibilities. Research shows that gender inequalities in these dimensions at least partly contribute to gender differences in pay. It is likely that they also bias the justice judgements of observers, especially if the observers hold traditional norms regarding responsibilities in the household and family (e.g., male-breadwinner model; see, Lang and Groß, 2020).

Bearing the limitations of this study in mind, the findings provide important insights for sociological justice research, as they show how inequalities influence the justice evaluations of people. Moreover, the findings can be useful for inequality research, as justice attitudes reinforce actual inequalities. In all Western countries, levels of pay between men and women are only slowly becoming closer (Blau and Kahn, 2003, 2006). The legitimization of gender differences due to biased referential structures could be one reason for the slow reduction in the actual pay gap.

DATA AVAILABILITY STATEMENT

The population sample 2 is available for registered users at the Socio-economic panel (SOEP) at the German Institute of

Economic Research (DIW). The data of the population sample 1, the student sample etc. are available from the author.

ETHICS STATEMENT

Ethical review and approval was not required for the study on human participants in accordance with the local legislation and institutional requirements. Written informed consent for participation was not required for this study in accordance with the national legislation and the institutional requirements.

AUTHOR CONTRIBUTIONS

CS conducted the survey and wrote the paper.

FUNDING

I acknowledge funding from the German Research Foundation (grant number: HI 680-4-1) and the Dutch Research Foundation (grant number: 4510-17-024).

ACKNOWLEDGMENTS

A first version of this paper was presented at the Conference of the American Sociological Association in 2011 in Las Vegas (Regular Session: How Do Organizations Bring Markets Back In? Competition, Meritocracy, and Pay and Tenure Outcomes). A second version of this paper has been part of my dissertation (Sauer, 2014b) and is available online as a discussion paper (Sauer, 2014a). I thank Stefan Liebig, Peter Valet, and Murray Webster Jr. as well as Guillermina Jasso and the two reviewers for critical comments and helpful suggestions. The three surveys were developed and conducted in collaboration with Katrin Auspurg, Thomas Hinz, and Stefan Liebig.

REFERENCES

- Adams, J. S. (1965). "Advances in experimental social psychology," in *Advances in Experimental Social Psychology*, Vol. 2, Chap. Inequity and Social Exchange, ed L. Berkowitz (London, UK: Academic Press), 267–299. doi: 10.1016/S0065-2601(08)60108-2
- Adriaans, J., Sauer, C., and Wrohlich, K. (2020). Gender Pay Gap in den Köpfen: Männer und Frauen bewerten niedrigere Löhne für Frauen als gerecht. *DIW Wochenbericht* 87, 147–152. doi: 10.18723/diw_wb:2020-10-3
- Alves, W. M., and Rossi, P. H. (1978). Who should get what? Fairness judgments of the distribution of earnings. *Am. J. Sociol.* 84, 541–564. doi: 10.1086/226826
- Auspurg, K., and Hinz, T. (2014). *Factorial Survey Experiments*, Vol. 175. London, UK: Sage Publications.
- Auspurg, K., Hinz, T., Liebig, S., and Sauer, C. (2015). "The factorial survey as a method for measuring sensitive issues," in *Improving Survey Methods: Lessons From Recent Research*, eds U. Engel, B. Jann, P. Lynn, A. Scherpenzeel, and P. Sturgis (New York, NY: Routledge), 137–149.
- Auspurg, K., Hinz, T., and Sauer, C. (2017). Why should women get less? Evidence on the gender pay gap from multifactorial survey experiments. *Am. Sociol. Rev.* 82, 179–210. doi: 10.1177/0003122416683393
- Berger, J., Fisek, H. M., Norman, R. Z., and Wagner, D. G. (1985). "Formation of reward expectations in status situations," in *Status, Rewards and Influence. How Expectations Organize Behavior*, eds J. Berger and M. J. Zelditch (San Francisco, CA: Jossey-Bass), 215–261.
- Berger, J., Fisek, H. M., Norman, R. Z., and Zelditch, M. J. (1977). *Status Characteristics and Social Interaction: An Expectation States Approach*. New York, NY: Elsevier Scientific.
- Berger, J., Zelditch, M., Anderson, B., and Cohen, B. (1972). "Structural aspects of distributive justice: a status value formulation," in *Sociological Theories in Progress*, Vol. 2, eds J. Berger, M. Zelditch, and B. Anderson (Boston, MA: Houghton Mifflin Company), 119–146.
- Blau, F. D., and Kahn, L. M. (2003). Understanding international differences in the gender pay gap. *J. Labor Econ.* 21, 106–144. doi: 10.1086/344125
- Blau, F. D., and Kahn, L. M. (2006). The U.S gender pay gap in the 1990: slowing convergence. *Indust. Labor Relat. Rev.* 60, 45–66. doi: 10.1177/0019793906006000103
- Cameron, A. C., and Trivedi, P. K. (2009). *Microeconometrics Using Stata*, Vol. 5. College Station, TX: Stata Press.
- Dittrich, M., Knabe, A., and Leipold, K. (2014). Gender differences in experimental wage negotiations. *Econ. Inq.* 52, 862–873. doi: 10.1111/ecin.12060
- Dülmer, H. (2007). Experimental plans in factorial surveys: random or quota design? *Sociol. Methods Res.* 35, 382–409. doi: 10.1177/0049124106292367
- England, P., Bearak, J., Budig, M. J., and Hodges, M. J. (2016). Do highly paid, highly skilled women experience the largest motherhood penalty? *Am. Sociol. Rev.* 81, 1161–1189. doi: 10.1177/0003122416673598
- Finke, C., Dumpert, F., and Beck, M. (2017). *Verdienstunterschiede zwischen Männern und Frauen. Eine Ursachenanalyse auf Grundlage*

- der Verdienststrukturerhebung 2014, in *Wirtschaft und Statistik* 2/2017, 43–62. Available online at: https://www.destatis.de/DE/Methoden/WISTA-Wirtschaft-und-Statistik/2017/02/verdienstunterschiede-022017.pdf%3F__blob%3DpublicationFile%26v%3D3
- Foschi, M. (2000). Double standards for competence: theory and research. *Annu. Rev. Sociol.* 26, 21–42. doi: 10.1146/annurev.soc.26.1.21
- Frank, T., and Grimm, C. (2010). *Beschäftigungsstatistik: Sozialversicherungspflichtige Bruttoarbeitsentgelte*. Nuremberg: Federal Employment Agency.
- Ganzeboom, H. B. G., and Treiman, D. J. (1996). Internationally comparable measures of occupational status for the 1988 international standard classification of occupations. *Soc. Sci. Res.* 25, 201–239. doi: 10.1006/ssre.1996.0010
- Gatskova, K. (2013). Distributive justice attitudes in ukraine: need, desert or social minimum? *Commun. Post-Commun. Stud.* 46, 227–241. doi: 10.1016/j.postcomstud.2013.03.007
- Hobler, D., and Pfahl, S. (2019). “Gender pay gap 2006–2018,” in *WSI GenderDatenPortal*. Available online at: <https://www.wsi.de/data/wsi-gdp-entgelt-2019-06-11-01.pdf>
- Hole, A. R. (2007). A comparison of approaches to estimating confidence intervals for willingness to pay measures. *Health Econ.* 16, 827–840. doi: 10.1002/hec.1197
- Homans, G. C. (1974). *Social Behavior. Its Elementary Forms*. New York, NY: Harcourt, Brace & World.
- Isserstedt, W., Middendorff, E., Kandulla, M., Borchert, L., and Leszczensky, M. (2010). *Die wirtschaftliche und soziale Lage der Studierenden in der Bundesrepublik Deutschland 2009*. Berlin: Bundesministerium für Bildung und Forschung (BMBF).
- Jann, B. (2007). Making regression tables simplified. *Stata J.* 7, 227–244. doi: 10.1177/1536867X0700700207
- Jann, B. (2008). “Lohngerechtigkeit und Geschlechterdiskriminierung. Evidenz aus einem Vignetten-Experiment,” in *Erwerbsarbeit, Einkommen und Geschlecht*, ed B. Jann (Wiesbaden: VS), 107–126.
- Jasso, G. (1978). On the justice of earnings: a new specification of the justice evaluation function. *Am. J. Sociol.* 83, 1398–1419. doi: 10.1086/226706
- Jasso, G. (1980). A new theory of distributive justice. *Am. Sociol. Rev.* 45, 3–32. doi: 10.2307/2095239
- Jasso, G. (1981). Further notes on the theory of distributive justice. *Am. Sociol. Rev.* 46, 352–360. doi: 10.2307/2095066
- Jasso, G. (1986). A new representation of the just term in distributive-justice theory: its properties and operation in theoretical derivation and empirical estimation. *J. Math. Sociol.* 12, 251–274. doi: 10.1080/0022250X.1986.9990014
- Jasso, G. (2006). Factorial survey methods for studying beliefs and judgments. *Sociol. Methods Res.* 34, 334–423. doi: 10.1177/0049124105283121
- Jasso, G. (2007). “Studying justice: measurement, estimation, and analysis of the actual reward and the just reward,” in *Distributive and Procedural Justice*, eds K. Törnblom and R. Vermunt (London: Ashgate), 225–254.
- Jasso, G., and Meyersson Milgrom, E. (2008). Distributive justice and CEO compensation. *Acta Sociol.* 51, 123–143. doi: 10.1177/0001699308090039
- Jasso, G., and Rossi, P. H. (1977). Distributive justice and earned income. *Am. Sociol. Rev.* 42, 639–651. doi: 10.2307/2094561
- Jasso, G., Shelly, R., and Webster, M. (2019). How impartial are the observers of justice theory? *Soc. Sci. Res.* 79, 226–246. doi: 10.1016/j.ssresearch.2018.10.013
- Jasso, G., Törnblom, K. Y., and Sabbagh, C. (2016). “Distributive justice,” in *Handbook of Social Justice Theory and Research*, eds C. Sabbagh and M. Schmitt (New York, NY: Springer), 201–218.
- Jasso, G., and Webster, M. (1997). Double standards in just earnings for male and female workers. *Soc. Psychol. Q.* 60, 66–78. doi: 10.2307/2787012
- Jasso, G., and Webster, M. (1999). Assessing the gender gap in just earnings and its underlying mechanisms. *Soc. Psychol. Q.* 62, 367–380. doi: 10.2307/2695834
- Jasso, G., and Wegener, B. (1997). Methods for empirical justice analysis: part 1. Framework, models, and quantities. *Soc. Just. Res.* 10, 393–430. doi: 10.1007/BF02683292
- Kugler, K. G., Reif, J. A. M., Kaschner, T., and Brodbeck, F. C. (2018). Gender differences in the initiation of negotiations: a meta-analysis. *Psychol. Bull.* 144, 198–222. doi: 10.1037/bul0000135
- Kuhfeld, W. F. (2005). *Marketing Research Methods in SAS*. Cary, NC: SAS-Institute.
- Lang, V., and Groß, M. (2020). The just gender pay gap in Germany revisited: The male breadwinner model and regional differences in gender-specific role ascriptions. *Res. Soc. Stratif. Mobil.* 65:100473. doi: 10.1016/j.rssm.2020.100473
- Liebig, S., and Sauer, C. (2016). “Sociology of justice,” in *Handbook of Social Justice Theory and Research*, eds C. Sabbagh and M. Schmitt (New York, NY: Springer), 37–59.
- Liebig, S., Sauer, C., and Friedhoff, S. (2015). Using factorial surveys to study justice perceptions: five methodological problems of attitudinal justice research. *Soc. Just. Res.* 28, 415–434. doi: 10.1007/s11211-015-0256-4
- Liebig, S., Sauer, C., and Schupp, J. (2011). Die wahrgenommene gerechtigkeit des eigenen erwerbseinkommens: Geschlechtstypische muster und die bedeutung des haushaltskontextes. *KZfSS Kölner Zeitschrift für Soziologie und Sozialpsychologie* 63, 33–59. doi: 10.1007/s11577-010-0123-0
- Liebig, S., Sauer, C., and Schupp, J. (2012). The justice of earnings in dual-earner households. *Res. Soc. Stratificat. Mobil.* 30, 219–232. doi: 10.1016/j.rssm.2011.12.004
- Markovsky, B. (1985). Toward a multilevel distributive justice theory. *Am. Sociol. Rev.* 50, 822–839. doi: 10.2307/2095506
- Rossi, P. H., and Anderson, B. (1982). “The factorial survey approach: an introduction,” in *Measuring social Judgements: the Factorial Survey Approach*, Measuring Social Judgments: The Factorial Survey Approach, eds P. Rossi and S. L. Nock (Beverly Hills, CA: Sage), 15–67.
- Sauer, C. (2014a). “A just gender pay gap? Three factorial survey studies on justice evaluations of earnings for male and female employees,” in *SFB 882 Working Paper Series 29. DFG Research Center (SFB) 882 From Heterogeneities to Inequalities* (Bielefeld University). Available online at: <https://pub.uni-bielefeld.de/record/2691510> (accessed June 25, 2019).
- Sauer, C. (2014b). *The factorial survey – method and application for studying attitudes and behavior*. (Ph.D. thesis). Bielefeld University, Bielefeld, Germany.
- Sauer, C., Auspurg, K., Hinz, T., and Liebig, S. (2011). The application of factorial surveys in general population samples: the effects of respondent age and education on response times and response consistency. *Surv. Res. Methods* 5, 89–102. doi: 10.18148/srm/2011.v5i3.4625
- Sauer, C., Auspurg, K., Hinz, T., Liebig, S., and Schupp, J. (2009). Die Bewertung von Erwerbseinkommen – Methodische und inhaltliche Analysen zu einer Vignettenstudie im Rahmen des SOEP-Pretest 2008. *SOEPpaper No. 189*, 46. doi: 10.2139/ssrn.1413792
- Sauer, C., Auspurg, K., Hinz, T., Liebig, S., and Schupp, J. (2014). Methods effects in factorial surveys: an analysis of respondents’ comments, interviewers’ assessments, and response behavior. *SOEPpaper No. 629*, 31. doi: 10.2139/ssrn.2399404
- Sauer, C., and Valet, P. (2013). Less is sometimes more: consequences of overpayment on job satisfaction and absenteeism. *Soc. Just. Res.* 26, 132–150. doi: 10.1007/s11211-013-0182-2
- Schomaker, C. (2010a). *Gender Pay Gap: Im Jahr 2009 verdienten Frauen 22 Prozent weniger als Männer*. Bad Ems: Statistisches Landesamt Rheinland-Pfalz. Available online at: <https://web.archive.org/web/20120203131554/http://www.statistik.rlp.de/wirtschaft/verdienste-und-arbeitskosten/einzelsicht/archive/2010/june/article/gender-pay-gapldquo-im-jahr-2009-verdienten-frauen-22-prozent-weniger-als-maumlner/>
- Schomaker, C. (2010b). Verdienste 2009: Vollzeitkräfte verdienen durchschnittlich 41200 Euro. *Statistische Monatshefte Rheinland-Pfalz* 6, 440–447. Available online at: <https://www.statistik.rlp.de/fileadmin/dokumente/monatshefte/2010/Juni/06-2010-440.pdf>
- Schupp, J. (2009). 25 Jahre Sozio-oekonomisches Panel - ein Infrastrukturprojekt der empirischen Sozial- und Wirtschaftsforschung in Deutschland. *Zeitschrift für Soziologie* 38, 350–357. doi: 10.1515/zfsoz-2009-0501
- Shepelak, N. J., and Alwin, D. F. (1986). Beliefs about inequality and perceptions of distributive justice. *Am. Sociol. Rev.* 51, 30–46. doi: 10.2307/2095476
- Siegel, N. A., Stocker, A., and Warnholz, S. (2009). *SOEP Testerhebung 2008: Persönlichkeit, Gerechtigkeitsempfinden und Alltagsstimmung. Methodenbericht*. Technical report, TNS Infratest Sozialforschung, München.
- Sipe, S., Johnson, C. D., and Fisher, D. K. (2009). University students’ perceptions of gender discrimination in the workplace: reality versus fiction. *J. Educ. Bus.* 84, 339–349. doi: 10.3200/JOEB.84.6.339-349
- Sohtan, K. E. (1981). Jasso on distributive justice. *Amer. Sociol. Rev.* 46, 348–352. doi: 10.2307/2095065

- StataCorp (2011). *Stata: Release 12. Statistical Software*. College Station, TX: StataCorp LP.
- Valet, P. (2018). Social structure and the paradox of the contented female worker: how occupational gender segregation biases justice perceptions of wages. *Work Occupat.* 45, 168–193. doi: 10.1177/0730888417753048
- Whitmeyer, J. M. (2004). Past and future applications of Jasso's justice theory. *Sociol. Theory* 22, 432–444. doi: 10.1111/j.0735-2751.2004.00227.x
- Younts, C. W., and Mueller, C. W. (2001). Justice processes: specifying the mediating role of perceptions of distributive justice. *Amer. Sociol. Rev.* 66, 125–145. doi: 10.2307/2657396

Conflict of Interest: The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright © 2020 Sauer. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.



In Search of the Missing Links Between Economic Insecurity and Political Protest: Why Does Neoliberalism Evoke Identity Politics Instead of Class Interests?

Juha Siltala^{1,2*}

¹ Department of Philosophy, History and Art Studies, University of Helsinki, Helsinki, Finland, ² Department of Philosophy, History, Culture and Art Studies, Faculty of Arts, University of Helsinki, Helsinki, Finland

OPEN ACCESS

Edited by:

Valeria Pulignano,
KU Leuven, Belgium

Reviewed by:

Jieren Hu,
Tongji University, China
Simon Springer,
University of Newcastle, Australia

*Correspondence:

Juha Siltala
juha.siltala@helsinki.fi

Specialty section:

This article was submitted to
Sociological Theory,
a section of the journal
Frontiers in Sociology

Received: 22 March 2019

Accepted: 31 March 2020

Published: 29 April 2020

Citation:

Siltala J (2020) In Search of the
Missing Links Between Economic
Insecurity and Political Protest: Why
Does Neoliberalism Evoke Identity
Politics Instead of Class Interests?
Front. Sociol. 5:28.
doi: 10.3389/fsoc.2020.00028

The prospect of the social backsliding of middle-class groups in western countries has not benefited the left but fueled right-wing populism. This article examines mediating and moderating factors between economic threat and political choices. The shift of liberals toward conservatism and the activation of passive authoritarians explain sudden changes more than dispositional factors. Attachment to groups under stress activates coalitional mindsets, and coalitional competition for scarce resources matches the conservative propensity to detect threats from outgroups. Risk-averse right-wing authoritarians should recoil from social-dominance oriented risk-takers but they follow winners despite their mutual differences concerning family values. Authoritarian aggression unites RWA and SDO, but politically passive right-wing authoritarians can also follow their economic interests, when these are not entangled with cultural values. Right-wing populists have been able to compensate economic insecurity with epistemic security. Identity politics supports the coherence of right-wing populist parties but divides leftist/liberal groups due to intersectional competition for victimhood.

Keywords: status anxiety, middle class, attachment to groups, coalition formation, identity politics

MYSTERIOUS LINKS

The rise of right-wing populisms during the long recession/stagnation following the implosion of global finance in 2008 is spurring researchers to reconsider their theories of motivation. Economic losses, real and perceived, and persistent insecurity, have not led to alternative economic policies. Traditional class parties have been shrinking, while a new Manichean political division is leaning on cultural values. The goal of this article is to determine how economic anxieties are mediated into boosting status through collective identifications.

Stressful economic changes can be taken as a given on the basis of the literature on economic history and politics in the U. S. and in Western Europe since WWII, and especially concerning the contrast between the “golden three decades” after the war and the last three decades of neoliberal financialization. The age of wars and extremisms was followed by an era of domesticated capitalism: labor-related income rose in pace with growth and productivity, full employment was attained and risks were collectivized by means of social insurance and welfare services. This long cycle based

on the mass production of consumer durables, cheap raw material and energy, the communist isolation of most of Asia from competition, and, last but not least, the ideological competition that compelled employers to pay decent wages to pre-empt socialism came to an end in the 1970s through an overproduction crisis and decreasing profits. Since then, collective bargaining and trade unions have been diminished under corporate pressure, and the freedom of capital movement has rendered national politics into mere adaption to global competition. Welfare services have retrenched and individuals have shouldered more responsibility for their employability and health. Incomes have polarized after the long compression, especially through the difference in taxation of capital income and labor income (Castel, 1996; Brenner, 2006; Brynjolfsson and McAfee, 2014; Piketty, 2014; Bivens and Mishel, 2015; Nachtwey, 2016; Cohen, 2017; Goodman and Soble, 2017; Lakner, 2017; Tyson and Spence, 2017; Weil, 2017; Temin, 2018; Tooze, 2018). The financialized economy is no longer reinvigorated through job creation and wages but by boosting asset and real estate values with “quantitative easing.”

In defense of global exchange as a positive-sum game against populisms, many researchers have emphasized that Western countries have not been immiserated, even though Asian middle classes have been the biggest winners, along with the global top 1%. Automation and global cheap labor have not destroyed the middle classes: the upper middle classes have been growing more rapidly even as the lower ones have contracted. Social mobility still occurs and people still reach the upper tiers of income (Hirschl and Rank, 2015; Milanović, 2016; Rose, 2016; Pinker, 2018).

A buoyant “average” does not, however, remove the sense of relative loss for individuals, regions, and groups. Income volatility due to job changes has increased. Unpredictable work makes debt service difficult (Dynam, 2010; Cooper, 2014). In the U. S., even college-level salaries stagnated during the 2000s (Inglehart and Norris, 2017). The USA overcame the recession as soon as 2010 but even the highest wages reached their pre-crisis level as late as in 2015, despite full employment (Schmitt et al., 2018). This trend of decoupling labor income from growth and rising asset prices has been obvious in Germany and Finland, as well. Younger generations no longer believe in their chances to achieve and surpass the standard of living of their parents (Pew Charitable Trusts, 2011; Pew Research Center/Global Attitudes and Trends, 2014; Luttrell and McGrath, 2015; Deal and Levenson, 2016; Kinnunen and Mäki-Fränti, 2016; Twenge et al., 2016; Brooks, 2017; Wichter, 2017). People mostly concerned about falling backward are those low enough but still with a significant measure of status to defend (Kuziemko et al., 2014).

It is better to ignore the short-term booms and busts and take this long-term increase in risks and shortening of expectations as the possible explaining factor for the crisis of the political systems and the pursuit of self-esteem through identity politics.

The horizon of expectations is linked to one's sense of agency. Antonovsky (1979) defines the sense of coherence, crucial to coping, as a “feeling of confidence that one's environment is predictable and that things will work out as well as can reasonably

be expected.” It's a mixture of optimism and control. People can accept inequality, if they can hope to improve their lot by work (Kelley and Evans, 2016). Hope means that one is able to project oneself into the future (Cloninger, 2011). The sense control, certainty and meaning have been acknowledged as crucial to stabilizing the human psyche (Hogg and Adelman, 2013; Kay and Eibach, 2013).

The loss of predictable careers, benefits, retirement plans, and the diminishing expectations for one's children have been shattering people's basic trust in the rules (Wilkinson and Pickett, 2018). The L-HPA system, the stress reaction mechanism of individuals, is not equally influenced by all stressors, but primarily by uncontrollable stressors that have social-evaluative aspects (Dickerson and Kemeny, 2004).

The self-destructive behavior of workers studied by Anne Case and Angus Deaton reflect hopelessness, but even well-to-do white collars in Silicon Valley, for example, are preoccupied by fears of losing their positions (Cooper, 2014; Case and Deaton, 2015a,b; Pew Research Center, Social and Demographic Trends, 2015).

The present study evaluates the findings of political psychology on the relationship between economic threats and the turn away from class-based identifications.

I seek the explanation for the growing identity populism from the following starting points.

- i) Economic stress obviously activates latent authoritarian tendencies and can render even liberals less tolerant.
- ii) Economic disruptions can fuel nationalist populism, because belonging to an identity group can restore one's sense of control and coherence by means of attachment.
- iii) Disruptive winners (those oriented to social dominance, SDO) and those who seek refuge from status threats (right-wing authoritarians, RWA) could be imagined as antagonists but obviously they complete each other.

The first one deals connects authoritarian reactions with the historical situation summarized above. The second one takes into account such ultimate dispositions as coalition formation and self-balancing by means of group attachment, likewise triggered by threat. The third one problematizes the mutual attraction between disruptive economic liberals and risk-averse cultural conservatives and why these can form identity-based tribes, using the tools provided by the first two paragraphs to explain the connection. Finally, I discuss why identity politics serves better right-wing movements than the left.

LIBERALS REACTING LIKE CONSERVATIVES AND CONSERVATIVES BECOMING MORE CONSERVATIVE

False consciousness has since the 1930s served as a stock explanation for deviations from economic self-interests (Jost and van der Toorn, 2012). Authoritarian personalities identify themselves with the aggressor and blame the weak. However, this explanation does take individual dispositions as causal factors ignoring situational reactions. Furthermore, it does not consider the improvement in child-rearing since the 1960s and the impact

of the long-lasting economic security on younger generations who can hardly be classified as authoritarians (Inglehart and Norris, 2017).

The mass support suddenly elicited by a Donald Trump cannot be explained by the dispositional authoritarianism of voters, since the quasi-permanent disposition toward authoritarian solutions can hardly change between two presidential elections. Since individual differences in negativity bias may remain stable over time (Norris et al., 2011), the rise of right-wing movements during the 1930s and since 2007 might be understood as situational authoritarian reactions triggered by experiences of disorder and injustice. When disruptions are interpreted as a culture war and not as a class struggle, right-wing populism will result: authoritarian reactions attempt to restore existential security and cognitive order.

The threats evoking RWA reactions are nowadays accepted as being external, and are no longer viewed as internal tensions, as was the case in early theories on the authoritarian personality. Yet they are moderated by the dispositional frame of RWA: social instability, criminality, deviance, and unemployment appear primarily as disorder to potentially authoritarians (Duckitt, 2013; Schaffer and Duckitt, 2013). According to Stenner (2005), latently authoritarian people are likely to remain tolerant when they do not feel themselves or their way of life to be threatened. White hetero men in Western countries obviously experience that the direction of history threatens their way of life right now. Doty et al. (1991) differentiated dispositional from situational authoritarians. Societal stress activates the authoritarian potential among those who already are dormant authoritarians (Feldman and Stenner, 1997; McCann, 2008; Duckitt, 2013). Unexpected, ambiguous, disorderly stimuli generate more sympathetic system responses in conservatives (Hibbing et al., 2014a). When people have to compete for scarce resources, they become more materialistic and violent, less trustful and less tolerant and support more authoritarian leaders: they concentrate on seizing immediate rewards at the cost of others and neglect thereby not only the development of their cooperative capacities but also any long-term care of themselves and their offspring. Their horizon and strategy have shrunk. Stability based on externalization as opposed to neuroticism seems to be linked with system justification in authoritarian regimes and with right-wing economic attitudes in democratic systems (Fatke, 2017, p. 887, 895).

Threats do not only activate dormant authoritarians but they can also make non-authoritarians move toward intolerance (Heatherington and Suhay, 2011). The needs for control and safety do not basically differentiate liberals and conservatives. Losses increase authoritarianism and decrease empathy in both groups. Economic upheavals have been associated with increases in F-scale scores (loyalty oaths, suppression of erotica, dominant cartoon characters; Sales, 1973; Sales and Friend, 1973; Doty et al., 1991). Experimental studies with manipulated threats and longitudinal studies at national levels have shown higher RWA in people who perceive themselves to be under threat (Doty et al., 1991; Duckitt and Fischer, 2003; Jugert and Duckitt, 2009). Perceived loss of control motivates those low in authoritarianism to resort to authoritarian attitudes in order to regain a sense of control (Mirisola et al., 2014). Social liberals, who

are distinguished from risk-averse conscientious conservatives by their openness (Fatke, 2017, p. 884), can lose some of their adventurousness when their basic security is threatened. Mortality reminders and the criticism of one's country by foreigners can cause liberals to think like conservatives: the great aggressiveness against the challengers of their worldviews (McGregor et al., 1998; Nail et al., 2009; Jonas and Fritzsche, 2013).

When threatened, both liberals and conservatives seek confirmation of their opinions from the like-minded, select information, and reject contradictory evidence (Skitka et al., 2002; Castano et al., 2011; Proulx et al., 2012; Chambers et al., 2013; Crawford et al., 2013; Brandt et al., 2014).

Reminded of their basic values under threat, liberals can cling to liberal values (including intergroup fairness) even more vehemently rather than moving to the right (Jonas and Fritzsche, 2013). If the propensity to alleviate stress under threat by evoking ingroup values crosses the party divide but does not alter the values invoked, then the demand for group conformism may be the factor that alters under threat. The impact of a tribal mindset and identity-protective cognition on liberals has been speculated about in regard to the heated emphasis on identity politics: ethnic, gender, and cultural animosities seem to be triggered more easily than class-based solidarity across identity boundaries (Mann, 1993/2013; Lilla, 2016; Nagle, 2017, p. 43–44, 68–85; Pinker, 2018, p. 356–374). Conway et al. have tried to disentangle authoritarianism and ideology by showing, how leftist and liberal people let values override information, close their minds and express both rigidity (prejudice, dogmatism, and strong attitudes) and authoritarian punitiveness depending on content domain (Conway et al., 2018; Dervin, 2018). If the equation between rigid use of symbols and conservatism would be dissolved, authoritarianism and conservatism could no longer be used as synonyms in political psychology (see Jost et al., 2003).

Cultural closure attempts to maintain predictability in the social world (Thorisdottir and Jost, 2011). Seen from the point of view of personal coherence, people adhering to cultural closure are overstretched by external forces and try to restore a sense of control by symbolic means. When people's sense of control is threatened, they prefer social hierarchy (Friesen et al., 2014), as if it offered a way of proxy control. Cross-country comparison indicates how authoritarianism buffers threatened well-being (Landau et al., 2015; Onraet et al., 2016).

Individual dispositions toward conservatism and liberalism can be taken as mediating and moderating factors between economic threat (cause) and political movements (reaction), not as ultimate causes of political movements. Economic stress can be mitigated by increasing symbolic control and confirming one's identity. This should imply that status politics is less in demand, if everyday life becomes more predictable.

BELONGING TO GROUPS AS COMPENSATORY CONTROL

Even the illusion of control can provide health benefits while a loss of control can elicit aggression (Baumeister, 2005, p. 93–103). Surveys have shown that people experience all that they can personally influence as positive (family, hobbies, the content

of their work), whereas bigger issues (politics, the economy, the world) beyond their control appear as lost or corrupted (Whitman, 1998). Extremism offers a sense of compensatory control. When people feel uncertain, they may radicalize to restore their sense of control (Hogg and Adelman, 2013; Kay and Eibach, 2013. Cf. criticism by Safra et al., 2018). In the U. S., most perpetrators of ideologically motivated crimes have earlier experienced economic and social losses (Kruglanski et al., 2014; Jasko et al., 2017). Ideologies justify individual quests for self-esteem and significance: devotion to larger issues restores self-worth, shaken by rejection, loss of control and injustice.

Threats can be managed by affirming one's core values and belonging to a group (Proulx et al., 2012). The basic need to belong and to receive recognition (Leary et al., 2006; Fisher et al., 2010) favors coalition formation under stress. Attachment to groups and ideas is pro-social behavior, the purpose of which is to obtain confirmation and protection under duress. Attachment as a system of self-soothing restores the shattered homeostasis of individuals after arousal, anxiety, and anger caused by an eventual mismatch with the environment. Cultural homogeneity, including sacred rituals, are a way to ascertain a sense of being attuned by others (Hart and Sussman, 2011; DiGarcia et al., 2013; Simpson and Karantzas, 2019). Human brains become synchronized by looking at the same object or listening to the same melody (Freeman, 2000).

The need for coherence mediates between negativity bias and political ideologies: when one can fight, one's sense of control is restored. Monitoring external threats, as conservatives tend to do, may be just the sort of tractable task to be completed in order to confirm one's sense of agency. Conservatives are neither fearful nor unhappy, since they are able to deal with dangers externally instead of rationalizing away their immediate emotions at the cost of their balance and satisfaction; cognitive closure makes life less complicated (Hibbing et al., 2014b, p. 337–341). Nationalist populism has been able to turn individual anxieties into a collective fight vis-à-vis clear-cut threats and thus confer a sense of self-efficacy to its supporters instead of a sense of helpless victimization (Bourke, 2005, p. 189–192). Trump promised to do something spectacular immediately, instead of analyzing and ruminating (Lilla, 2016). Marine Le Pen vowed that her first measure as president would be to “re-establish real borders” for France. The Brexiteers won by promising just the same (Krastev, 2017).

The desire to close national borders encompasses both the real attempts to seize control of what happens to oneself and the protective fantasies of fusion of the individual body with the body of the national state. This fantasy of being a part of a greater entity is not pathological as such but a precondition for basic trust to assert one's individual autonomy and to balance the need to belong, on one hand, with individual differentiation, on the other (Blatt and Levy, 2003). Identity groups are experienced as if they were caregivers and described using family vocabulary (“fatherland,” “mother Russia,” “children of France”). Nations can be imagined but they have been able to confer meaning and orientation (Anderson, 2006; Smith, 2010).

A threat against one's self-esteem is expanded to encompass national or western culture as an entity (Dervin, 2015; Nagle, 2017). “Making America great again” promised to ground-losing white males that they could again become great as a part of their large identity group. When collective social identities are defended against perceived disrespect, collective pride suppresses individual shame (Fisher et al., 2010; DeScioli, 2016; Jasko et al., 2017). Large groups establish their identities in counterpoint to those who oppose them and whom they oppose together. Splitting apart and the projection of good and bad do not allow for concern or remorse (Alford, 1989, p. 83–103; Volkan, 1988). This feature matches the conservative lack of neuroticism. The need to remain immune to overwhelming stimulation can override sophistication. In hostile competition, insensitive but hyper-vigilant, risk-taking men succeed: they do not internalize conflicts, empathize or experience shame (Nail et al., 2009; Del Giudice et al., 2013).

During economic advances and increasing divisions of labor, individuals have optimally adapted by means of social skills, empathy, tolerance, and universal care. Individuating features, differentiating interests and the need for self-actualization as a person can prevail, as people feel safe and can free their mental capacity from survival concerns. Chronically threatened people lose cognitive capacities that are normally available to them (Inglehart and Weltzel, 2005; Mullainathan and Shafir, 2013; Weltzel, 2013). High stress reactivity has been associated with a decrease in the more recently evolved cognitive capacity to regulate social and emotional responses (Flinn et al., 2013, p. 110). Creative individuals with a sensitive HPA axis can flourish only when they do not experience threats (Del Giudice et al., 2013).

Only when the survival is guaranteed, people can afford investment in future and be open to new chances. Affluence promotes time discounting, self-control, optimism, cognitive exploration, and social trust (Baumard, 2018). Scarcity of resources seems to bring to the fore conservative virtues that support group cohesion (ingroup solidarity, authority, tradition, purity) (Haidt and Graham, 2007; Graham et al., 2009; Sinn and Hayes, 2017). The evolutionary disposition for coalition formation may benefit conservatives in so far as they become alert to threats from outgroups and rather insensitive to threats posed by impersonal, complex processes, like the climate crisis (Hibbing et al., 2014a).

When threatened, groups of people can behave like beehives and try to forget their differentiating interests. To be consistent with their identity, people can sacrifice their economic self-interest and self-expression in favor of tradition, authority, and purity of the group (Haidt, 2012; Kesebir, 2012). Such behavior is not necessarily irrational, since both economic gains and belonging to a group can be seen as motivated by a pursuit of control. Evolutionary psychology points to a gender difference: while women gain comfort from giving and receiving support in long-term personal relationships, men are more prone to think in terms of competing coalitions (Belsky, 2012).

Defensive reactions against unpredictable conditions and offensive actions to gain advantages at the cost of others become blurred in coalitional thinking. Social threats against

the *status quo*, so important to right-wing authoritarians, and threats against the privileged position of one's nation, crucial for the social-dominance-oriented, lead both groups to react against the porosity of national borders. People high in RWA believe that the world is dangerous, while the metaphor for those high in SDO is that the world is a competitive jungle. They focus on external dominance over other coalitions (Duckitt and Sibley, 2010; Federico et al., 2013). This shared sensibility concerning coalitional threats favors cooperation between the disrupters of status quo, the competitive egoists, and the disrupted, the risk-averse conservatives.

However, in predicting hostility, RWAs and SDOs differ from each other (Sinn and Hayes, 2018). Theories of the all-encompassing negativity bias (Hibbing et al., 2014a), of a group-binding morality (Graham et al., 2009) or of a general resistance to social changes (Jost et al., 2003) do not catch this. The coalitional mindset as such does not predispose people to coalitional hostility. Positive attachment to one's nation does not necessarily lead to retaliatory hostility against outgroups and a heightened sensitivity to offenses against collective self-worth of one's ingroup: research on Brexit has shown that national identification/attachment (confident self-esteem independent of others' opinions) did not predict the referendum vote, after the collective narcissism (defined as vulnerable self-esteem dependent on comparison and external recognition) was controlled for (De Zavala et al., 2017a,b). Outgroup hostility is evoked first and foremost by status threat (Gidgron and Hall, 2017). Collective narcissism seems to coincide rather with insecure ingroup attachment which sensitizes people to any perceived disrespect (De Zavala et al., 2017b). Obviously, RWAs take to hostile comparisons when they are threatened with loss, while SDOs in their competitiveness might always think in terms of zero-sum games (Duckitt, 2006).

Attachment to a group as mechanisms of relieving anxiety is available to everyone but coalition formation with its large-group dynamics favors the right-wing way to detect and manage threats.

"Feeling good" in one's national identification may refer to the experienced protection offered by one's national ingroup. Feeling good as well as a sense of coherence are closely related to a secure status (Gidgron and Hall, 2017). But the possibility of "feeling not so good" before becoming nationally attached, and the possible reasons for uneasiness, have not been covered in the studies on national attachment because attachment is taken as something permanent. National narcissism, too, could be interpreted as a grandiose posture against vulnerability taken after perceived humiliations, not as a pre-existing, malignant and dominant personality trait in the population (cf. Richards, 2018). German retaliatory narcissism has been interpreted as a defense following loss of self-worth after WWI: democratic elites were unable to handle this narcissistic wound but Hitler offered identification with strength (Kohut, 1978/1985, p. 81–94). If hostile narcissism is understood as a way to cope with social comparisons, it becomes historically contextualized instead of remaining a static classification.

ARE SECURITY-SEEKERS AND DISRUPTERS DESTINED TO BE ALLIES?

The increased interest in "situational authoritarianism" among researchers reflects a search for a common human denominator in the midst of the current culture wars. If various protesters could see economic concerns from the same angle, they could cease to imagine each other as "forbiddingly alien and other" (Nussbaum, 1997, p. 85), and cooperate against moneyed interests despite their principled antagonisms in cultural issues. In that case, the populist rhetoric pitting common men against "corrupt" elites (Mudde, 2015; Bos et al., 2018) would possibly increase support for redistribution (Arikan and Cekecioglu, 2019). "Authoritarian neoliberalism," conceived as redistribution up by mobilizing aggressions down (Streeck, 2015; Bruff and Tansel, 2018, 2019) would fade as the likeliest outcome of the next long-lasting economic crisis.

The challenging question is whether cultural conservatives and economic conservatives can ever oppose each other. Farmers and small entrepreneurs surely have reacted against capitalist land-grabbing, debt slavery and "unfair" pricing to recover what has been rightfully theirs, but have also supported established elites, depending on the threats to their way of life and alliances with other strata (Moore, 1993, p. 92–110, 477–482, 298; Mann, 2012, p. 650–651, 695–718).

Adherence to traditional rules and discipline are the core of cultural conservatism, while economic conservatism is defined by the acceptance of hierarchy, inequality, and intergroup dominance (Altemeyer, 1981; Duckitt and Sibley, 2009, 2010). Since cultural conservatives and economic conservatives are motivated by different concerns, their reactions to economic losses should differ, too, despite their unifying ingroup preference. Nevertheless, normative attitudes concerning groups and families predict economic conservatism as well, and the motive to reduce uncertainty makes even less-advantaged people accept inequality (Thorisdottir et al., 2007, p. 179; Hibbing et al., 2014a, p. 301, 305; Federico and Malka, 2018, p. 6).

From the point of view of political psychology, the unconditional endorsement of private business among RWAs can be explained either as an ontological view of life as competition or as identifying with the system. Trump voters criticized global competition but identified more with American capitalism (Adevedo et al., 2017). They could imagine themselves as entrepreneurs realizing American dream but felt disadvantaged in the meritocratic competition of global elites (Markovits, 2019). Submissive, order-loving persons try to accept the fairness of the world that actually disfavors them. If they can only see natural or divine order behind actual injustices, hope is sustained. Identification with the established order can and often does override even realistic pessimism about one's chances in that order: false consciousness is not even needed, the search for emotional security by compliance is enough (Thorisdottir et al., 2009; Landau et al., 2015; van der Toorn et al., 2015; Jost, 2017; Jost et al., 2017).

For liberal researchers themselves, one way to save their optimistic conception of the innate nature of people has been the

redefinition of conservative ingroup morality as altruism. Haidt has tried to make conservatives more familiar in the eyes of liberals by emphasizing their moral commitment to other people in contrast to egoists, be they self-expressive liberals or profit-seeking businessmen. Sinn and Hayes (2017), on the other hand, deny the allegedly broader scope of conservative morality in comparison with alleged liberal “self-actualizers,” emphasizing instead the all-encompassing care evident in liberals and the shared ingroup preference of SDOs and RWAs.

Those whose motivation to care and to be fair is universal, are sensitive to exploitation within groups. Individualizing or universalizing motivation loads negatively against a social-dominance orientation. Liberals can sacrifice individual autonomy for the common good defined universally as environmental conservation, while the authoritarian emphasis on the common good, the social coherence of the ingroup, is connected with outgroup antagonism (including deviating groups within) (Sinn and Hayes, 2017, 2018). Universal morals transcending ingroups and self-expression became conceivable only after the violence of pre-statist societies was eliminated, the need for close-knit ingroups as protectors lessened and affluence allowed individuals personal choices (Berggren and Trägårdh, 2006/2015; Newson and Richerson, 2009; Hruschka and Henrich, 2013; Siedentop, 2014; Sinn and Hayes, 2017).

The inner tension among conservatives between egoist disrupters and altruistic community builders is turned into energizing coalitional synergy: when people defend themselves by supporting ingroup hierarchies, they become less sensitive to exploitation by leading group-members. The evolutionary default setting, the ingroup preference uniting SDOs and RWAs, makes system justification also a rational choice for RWA. By supporting exploitative leaders, cooperating moralists can enjoy the fruits of group-based dominance (Sinn and Hayes, 2018, p. 1124–1126). SDOs can be imagined as alpha males, eager to achieve dominant positions in hierarchical ingroups (Liddle et al., 2012). Dominant alphas are motivated by the lion’s share of the booty they get when some outgroup is beaten (Gavrilets and Fortunato, 2014). Altruistic moralists use exploitative bullies (Volk et al., 2012; Garandeau et al., 2014; Goodboy et al., 2016) as their proxies to carry out morally suspect but necessary decisions. Those who submit themselves to the dominant leaders are attracted by their winner-like habitus.

Males in general are ready to cooperate within their group when facing coalitional competition. A hierarchical coalition can prevent free-riding, which improves its competitiveness compared with egalitarian groups (Sinn and Hayes, 2017, 2018, p. 1124; Friesen et al., 2014). According to Sinn and Hayes, authoritarian morale evolved as an adaptation that reduced competition within ingroups struggling for resources against other coalitions. It operates through kin-detection in dividing large non-kin groups, such as religion or ethnicity, as in us vs. them (Heylen and Pauwels, 2015; Sinn and Hayes, 2017, 2018). Populist right-wingers recommend severe punishment for those who infringe on authority (Mudde, 2015, p. 296). Identification with the dominance exhibited by “strong” leaders may compensate for individual insecurity in the labor market.

Strongmen such as Berlusconi, Erdogan, Putin, Bolsonaro, or Trump are justified by the mere facticity of their success.

Due to the shared acceptance of hierarchical order, in addition to the shared ingroup preference, the striking difference in risk tolerance does not drive apart those high in RWA and those high in SDO. The SDOs are insensitive to any kind of risk as well as concern for these the risk-takers themselves or other people. RWAs, on the other hand, are not only wary of cultural changes but are still capable of imagining the economic fall-out of risky business behavior on themselves, as well. Loss aversion and authoritarianism go together but the causal mechanisms between them are far from clear. Paradoxically, the reckless risk-takers are driving risk-averse conformers toward the right: the latter adapt to disruptions by identifying themselves with social order and their supposed superiority as conformers (Asbrock et al., 2017; Johnston and Madson, 2017; Federico and Malka, 2018, p. 6–7; Dörre, 2018).

The common superiority motive gluing together SDOs and RWAs must be able to succumb to the centrifugal forces of family values. The short-term life strategy of SDOs explains why they do not care about sexual restrictions. For RWAs, the “binding” motive suggests prosocial sacrifices of individual interests and sexual freedoms for the group cohesion, while SDOs consequently choose egoist strategy. SDOs only feign cooperation but seek power within the groups at the cost of others (Pratto and Hegarty, 2000; Cross and Fletcher, 2011; Kenrick et al., 2013; McCullough et al., 2013; Petersen et al., 2013; Price et al., 2017; Sinn and Hayes, 2017, 2018). RWAs prefer affectionate socialization in stable families and communities (Duckitt, 2001; Peterson and Zurbriggen, 2010; Sinn and Hayes, 2018). SDOs try to maximize their gains in harsh, low-trust and unpredictable environments, while RWAs attempt to establish niches of reliable reciprocation within the competitive world by means of marital fidelity and religious sanctions against disruptive egoism (Boehm and Flack, 2010; Sinn and Hayes, 2018, p. 1134). Those who score high in SDO, score high only in those RWA themes linked with authoritarian aggression while being indifferent in regard to authoritarian submission and conventionalism.

As to the basic conflict between individual rights and social cohesion, SDOs with their materialist values approach cultural liberals, who prefer individual autonomy and self-regulation to traditions. According to Sinn and Hayes, persons high in SDO differ from liberals in the dimension between self-transgression and self-enhancement. They are more self-promoting than altruistic RWAs, who submit themselves to established authorities and reject both self-direction and universalism. Those high in RWA react with authoritarian aggression to normative deviance as a threat to social order, since their peace of mind depends on defensive prejudices and guaranteed social cohesion (Feldman, 2003, p. 46, 67; Feldman and Stenner, 1997; Duckitt, 2006; Passini, 2017, p. 74–76, 80–84; Sinn and Hayes, 2017).

Dissonances are imaginable between reckless winners and conformists, if dominance motivation for the sake of survival does not prevail. For many submissive authoritarians, Trump, the reckless business tycoon and womanizer, did not behave himself respectably enough. He was more able to appeal

to aggressive authoritarians, who are close to being social-dominance-orientated and have low agreeableness (Ludeke et al., 2017). The factor that allows most cultural conservatives to ignore Trump's deviations from the religious code of conduct was—according to explicit statements by evangelical leaders—his imagined role as a warrior king overcoming their externalized enemies in the culture wars (Adams, 2018).

Economic questions borrow their affective power from value-laden issues (Johnston et al., 2017). Mass support for capitalism is mediated through the imagined moral order: rewards and losses are seen as deserved or not (Jost, 2017). Conscientiousness has been linked with capitalism and self-responsibility instead of collective social security provided by the state, but this established connection between conscientiousness and conservatism might presuppose fair rewards for self-responsibility (Fatke, 2017). Unfair rewards and punishment could drive hard-working people from the winners of financial speculation, who obviously do not reciprocate in their games (Sinn and Hayes, 2018, p. 231–232, 234). A striking imbalance of gains should also weaken such system justification that is based on the expected coalitional advantages of submission to dominant persons, and strengthen the impact of the phylogenetic disposition of fairness (Van Vugt et al., 2008; Jost, 2017; Starmans et al., 2017). Conscientious people who have fulfilled their duties, react to the eventual loss of income more than careless spenders. Unemployment prevents the conscientious from building up property as a safety valve and shatters the meaning of life. It can cause depression, since the conscientious blame themselves for the losses instead of the conditions of life. If the meaningful relationship between their efforts and the rewards has been broken, men in particular let go; they become irritable and can give up job-seeking (Boyce et al., 2010, 2013, 2015, 2016). In the U.S., white-collars are employed more on the basis of the personal impression they make. If they are rejected, they feel flawed as persons (Sharone, 2014).

Stress experienced by the conscientious is always explained by a real or possible loss of their economic position, their status, their relationships, their beliefs, or their self-esteem (Hobfoll, 1989). The search for confirmation of shattered selves (De Botton, 2005, p. 3–7) may also explain, why conscientious people can react with status enhancement (Gidgron and Hall, 2017). To recruit cultural conservatives to support disruptive economics, political entrepreneurs bundle together contradictory themes by framing economic issues with moral ideals (“freedom,” “family,” “responsibility,” “patriotism”). Emotional frames are charged with anger and disgust that render compromises impossible (Clifford, 2019). According to Federico and Malka (2018), the link between certainty and security needs, on one hand, and conservative political preferences, on the other, is moderated by ideological packages and people's need to follow their party in every respect (identity-expressive motive). In the U.S., even politically passive high authoritarians can satisfy their longing for security and order by supporting redistributive and regulative economic policy. As the catch-all group identification fades, economic interests can have their influence. Even politically active authoritarians can oppose free trade and favor government interventions, if the question is not embedded in the conservative *Weltanschauung*. Politically active citizens, however, defend the

party ticket in its entirety (Federico and Malka, 2018, p. 23–28, 31; Johnston, 2017, 2018).

In post-communist societies and among politically less conscious voters in western countries, the preference for economic protection can align with right-wing cultural attitudes, especially among the lower social classes (Lefkofridi et al., 2014; Malka et al., 2017b; Federico and Malka, 2018, p. 33). In such cases, leftist economic policy has represented stability, whereas in western societies, the threat to stability used to come from the left ever since the French revolution. In Eastern Europe, openness to gay marriages has been associated with privatization and austerity programs, while family values have been harnessed by socialist parties (Federico and Malka, 2018, p. 20–21).

According to the meta-analysis by Federico and Malka, the majority of studies show how strong needs for existential security and epistemological certainty (measured as authoritarianism, threat sensitivity, and cognitive closure) go together with cultural conservatism but do not correlate with conservative economic views (e.g., Jost, 2006; Duckitt and Sibley, 2009; Feldman and Johnston, 2014; Malka and Soto, 2015; Johnston et al., 2017; Federico and Malka, 2018, p. 9–18, 27). Logically, the prospect of social backsliding should benefit left-leaning populism (Brown-Ianuzzi et al., 2015).

When leftist politicians can attune themselves to fear of loss and consequent status anxiety (Gidgron and Hall, 2017), they could attract floating voters. The most authoritarian right-wing populists have usually never supported Bernie Sanders in American politics, but Sanders was able to appeal to moderately authoritarian (center-right, “average” authoritarians) and not only to the culturally liberal leftist core. Sanders tried to overcome identity politics and instead emphasize class-based, unifying themes. Among voters in Western Europe, cultural conservatism is often linked with support for redistributive policies (Lefkofridi et al., 2014). Considerable number of center-left populists has been found among the voters for *Alternative für Deutschland* (AfD) (Rothmund et al., 2017). The average voters for the Swedish Democrats in 2018 had suffered economic losses since 2006 and felt the insecurity of working life (Jilani, 2018). Among those who voted for UKIP in Britain to support Brexit, a large group opposed both overwhelming cultural changes and economic insecurity (Harper and Hogue, 2017). During the economic recession since 2008, right-wing populist parties adopted protectionist and interventionist themes able to attract authoritarians on the left from social democrat parties (Mudde, 2013; Lefkofridi and Michel, 2016). Marine Le Pen has been courting the “yellow vest” protesters, evidently airing economic frustration and concerns about the growing inequality under globalization.

Evidence of party interchangeability indicates how cultural conservatives can be moved by economic insecurity as well as by coalitional threats, and how people from the left can at least occasionally seek security by means of cultural closure. Using survey data from 99 nations, Malka, Lelkes, and Soto found not only that right-left attitude organization is uncommon, but that it is more common for culturally and economically right-wing attitudes to correlate negatively with each other, an attitude structure reflecting a contrast between desires for cultural and

economic protection vs. freedom. The class of freedom-seekers consists of those who are both economically neoliberal and culturally progressive, whereas the group of protection-seekers consists of those who favor wealth redistribution and cultural conservatism (Malka et al., 2017a,b).

Despite the evidence of widespread risk-aversion, the combination of conservative cultural attitudes and a leftist economic policy remains underrepresented in party politics in Europe (Lefkofridi et al., 2014, p. 66). Paradoxically, individualization works here for total identification with all-good parties fighting against their all-bad adversaries. The post-materialist values of autonomy and self-actualization emerged from a sufficient level of material welfare (Inglehart and Welzel, 2005), but expectations for individual identity work have persisted after the fragmentation of universal welfare (Koppetsch, 2010). Strong ties with one's overarching group of reference are needed to counterbalance individualized economic risks and the challenges of identity work. Outrage aroused by symbolic insults against one's collective identity can support the personal coherence of lonely individuals: it confers orientation (Brady et al., 2017; Sasse, 2018). This metapolitical search for the mirroring of one's self (Heatherington and Weiler, 2009) provides an affective impetus for party ideologies. The number of floating voters, who consider issues one by one without any consistent ideology, has decreased (Johnston et al., 2017, p. 6; Federico and Malka, 2018, p. 21; Caprara and Vecchione, 2018, p. 62–65, 75–77). Income levels do no longer differentiate voters' values: Republicans and Democrats are bound together by values concerning social issues, not by class. The most heated ideological cleavage divides rich Democrats or rich Republicans. Class issues and class voting have declined in Western democracies since the 1980s (Ciuk et al., 2018, p. 881–883; Inglehart and Norris, 2017).

Alienation from party politics, evident in Europe during the 1990s, worries established, interest-based parties but not populist parties fueled by identity motivation. The U.S. Republican Party has benefited from the overlap of social identities (white, male, protestant) with party affiliation more than the Democratic Party, which consists of overtly diverse subgroups. The GOP functions more than Democrats as a tribe that monitors its symbolic purity (Federico and Malka, 2018; Mason and Wronski, 2018, p. 29).

Experiential openness is linked with easy everyday orientation and the management of life. If the environment is not predictable, and biographical self-experience not continuous, the mind's closing down can be expected depending on both individual dispositions and the perceived threats to one's position. Ontological security presupposes not only a continuous and consistent view of the world but fair social institutions, as well (Giddens, 1991; Kinnvall and Mitzen, 2017, p. 37, 91–92; Harper and Hogue, 2017). Uncompromising values in politics establish epistemological security. RWAs are capable of recognizing economic injustice but their need for security is moderated by their conception of just order.

National populists have succeeded by embedding economic security themes in the ascribed group identity. Front National voters in France have been worried about the future of their way of life, not only their standard of living (Reynié, 2013, p. 37–47, 100–132). In Germany, *AfD* is now more popular than the traditional Social Democratic Party among unskilled and

unionized workers. It has been able to turn class struggle into an interethnic competition over welfare redistribution and has labeled traditional trade union leaders as internationalist class traitors. Identity politics guarantees respectability by classifying even low-paid natives, by definition, among hard-working and middle-class Germans, while defining immigrants as lazy (Dörre, 2018). In its economic policy, the *AfD* endorses neoliberalism within national states but favors protective borders. In their comparative analysis of euro-skeptic parties, Slobodian and Plehwe (2018) warn against any premature contrasting of protectionist populists against neoliberal globalists.

Identity politics unite the right wing, whereas it divides the groups on the left along ethnic, cultural, and gender lines. Leftist parties lose the votes of white males by focusing only on women and immigrants while classifying all white males among the privileged. In the alt-right net forums, the left and liberals are routinely included among overbearing global elites. These forums are responding to leftist identity politics with the identity politics of white males (Hawley, 2017; Haider, 2018). Class-based solidarity may be possible, if leftist parties can offer ontological security by means of a convincing economic program and include even white males into its conception of historical progress.

DISCUSSION AND CAVEATS

Declining economic security and cultural changes amount to status threat: threatened people no longer feel themselves as fully recognized, competent members of their society (Gidgron and Hall, 2017; Fukuyama, 2018). Individual dispositions still matter for political choices, but experiences of economic insecurity drive more voters than 30 years ago toward survival values and away from postmaterialist liberalism (Inglehart and Norris, 2017).

The subjective sense of security can be improved by attachment to group and ideologies. Attachment to groups as prosocial behavior is triggered by perceived threats. Belonging to a group confirms one's individual sense of coherence. Because large groups create their identity in opposition to other groups, a coalitional mindset (especially prevalent among men) is thereby activated. This mindset moves in the same direction as the conservative negativity bias, the sensitivity to external threats by other groups (instead of abstract threats such as economic injustice and environment degradation). Longing for order and orientation may favor right-wing mobilization, while liberal features such as openness, tolerance for ambiguity, and universalism prevent the formation of coherent coalitions. In particular, alt-right trolls externalize and blame their targets without strict moral self-scrutiny, while overtly self-reflective liberals become easily hindered when criticized for being too privileged to speak for vulnerable groups. While empathy and sensitivity have been the best adaptations to complex interdependencies in progressing societies, a lack of both empathy and a sense of guilt may offer a competitive edge for individuals and groups struggling for scarce resources.

The left and liberals are in no way immune to tribal coalition formation, and they create group cohesion through mutual value affirmation as well. However, for now the tribal way of managing threats serves more the right-wing parties, since it depoliticizes class-based themes or transforms them

into ethnic rivalry. Left-wing populism, the Occupy movement for instance, had been fragmented from the beginning by an overemphasis of ascribed group differences being an obstacle to mutual cooperation. Fragmented identity groups are not willing to sacrifice their demands for personal recognition in order to find the lowest common denominator for a class-based coalition of divergent individuals.

Groups are bound by ideologies and values. Cultural conservatism and RWA support group cohesion, and SDO is dovetailed with RWA through outgroup hostility: dominant, egoist leaders are chosen as effective representatives of ingroups for zero-sum resource games. Counter-intuitively, disruptive winners (SDOs) and those who seek protection from status threats (RWAs), are seldom driven apart despite their different economic interests, since enlarged kin detection and system justification glue them together. Exploitation within the ingroup and deviations from the moral code of conduct by leaders do not challenge their legitimacy.

Seeking social confirmation of one's worth within an ingroup can be seen as a universal mechanism for coping with anxiety and not limited to conservatives. The coalitional mindset and evolutionary preparedness against external dangers are ultimate causal factors and do not override class politics on their own. Exploring the causal path between economic crisis and populisms may exceed the boundaries of experimental social psychology and presuppose counterfactual imagination.

Kinship or the tribal system of security is activated only when bureaucratic, politically negotiated security networks of developed countries fail or are expected to fail. Coalitional identity politics supplant class-based parties only when these have become unable to relieve the anxieties of voters. The rise of right-wing populism occurred as late as during the financial crisis since 2008, not during the Washington consensus following the collapse of the Soviet Union and the freeing global trade. First, voters under pressure tried the social democrats but were disappointed, since leftist government could offer no alternative to running just to stay in place. Individuals, companies and countries were caught up in the global acceleration of competition, while at the same time wages and social security were being cut (Mann, 1993/2013; Dörre, 2018; Wagner, 2018). Mass immigration was only the last indication of the loss of sovereignty of national states.

Due to welfare retrenchment, economic risks are individualized. Polarization of the labor market also renders people sensitive to status ranking. The increased emphasis on collective identities counterbalance the possibility of losing everything as individual. Zero-sum games for respect between identity groups have been exacerbated during the long recession. Identity politics operates with the deeply ingrained patterns of the coalitional mind rewarding participating individuals with immediate self-satisfaction for being a part of righteous group. Class coalitions, instead, equate to long-term strategic reasoning. The shortening of the horizon of expectations and the causes of the increased short-term reasoning in the West deserves further studies. During the last few centuries, class consciousness has been often encumbered by ethnic, religious, occupational and

sectional divisions (Mann, 2012). While universalism was the main strategy for the working classes and minorities to gain equality in industrialized societies for most of the twentieth century, national and religious particularisms have since then channeled the protest of the excluded.

When economic losses and status threats are compensated for by boosting collective identity, political reaction turns away from global capitalism toward the cultural content of globalization. Cultural liberals have been held accountable for the general weakening of the ontological security that economic liberals have promoted through global race-to-the-bottom wage competition and financial bubbles. Culture-liberal leftist parties demanding status sacrifices from western middle-class have been successfully identified as globalist intruders threatening the achieved advantages of working people. In opposition to them, new right-wing parties willingly support the advantages of the western middle-classes, if these advantages are defined vis à vis outgroups and do not threaten the relative competitiveness of national companies. If left-wing parties try to win back the votes of less educated white males, they should include them into their narrative of historical progress. Being able to project oneself into a positive future can confirm one's need for coherence and may alleviate frustrations (cf. Cloninger, 2011).

The findings of political psychology indicate not only the shift of liberals toward the right when under threat and the activation of situational, centrist authoritarianism, but also the fact that passive conservatives or centrist authoritarians may acknowledge economic injustices and occasionally support leftist policies. Unfair losses may make conscientious conservatives angry, but their anger can be deflected by means of system justification or simply by the suspicion that a possible redistribution of wealth would favor groups other than theirs. In particular, ethnic minorities are easily suspected of being free riders (Alesina et al., 2001; Larsen, 2008; Jensen and Svendsen, 2009; Peterson, 2015; Federico and Malka, 2018, p. 35–36). A permanent underclass in absolute need does not elicit as much redistributive compassion as a sudden fall of middle-class income (Delton et al., 2018, p. 911, 919). To gain majoritarian support, redistributive politics would presuppose universal benefits for the middle classes (Arikan and Cekiçoglu, 2019, p. 1114), too, and trust in the reciprocal shouldering of its cost between people in different phases of life. Increasing inequality and growing social distances diminish social trust necessary for redistribution (Gärtner and Prado, 2016).

Issues such as the best way of increase welfare, the role of redistribution and immigration remain divisive in any event, and value choices are not ultimately reducible to psychological dispositions. In order to establish the impact of psychological factors on the attitudes concerning economy or immigration, opinion differences should be measured within psychological classes as well, not only between them.

AUTHOR CONTRIBUTIONS

The author confirms being the sole contributor of this work and has approved it for publication.

REFERENCES

- Adams, K. A. (2018). A bully in the bully pulpit vs. Hillary monster and feminization. *J. Psychol.* 46, 80–99. Available online at: <https://www.questia.com/library/journal/1P4-2116796283/a-bully-in-the-bully-pulpit-vs-the-hillary-monster>
- Adevedo, F., Jost, J. T., and Rothmund, T. (2017). “Making America great again.” system justification in the U. S. presidential election of 2016. *Transl. Issues Psychol. Sci.* 3, 231–240. doi: 10.1037/tps0000122
- Alesina, A., Glaeser, E. L., and Sacerdote, B. (2001). Why doesn’t the United States have a European-style welfare state? *Brook. Pap. Econ. Act.* 2, 187–277. doi: 10.1353/eca.2001.0014
- Alford, C. F. (1989). *Melanie Klein and Critical Social Theory: An Account of Politics, Art, and Reason Based on Her Psychoanalytic Theory*. New Haven, CT: Yale UP.
- Altemeyer, B. (1981). *Right-Wing Authoritarianism*. Winnipeg, MB: University of Manitoba Press.
- Anderson, B. (2006). *Imagined Communities: Reflections on the Origin and Spread of Nationalism*. London: Verso.
- Antonovsky, A. (1979). *Health, Stress and Coping*. San Francisco, CA: Jossey-Bass.
- Arikan, G., and Cekiçoglu, E. (2019). Authoritarian predispositions and attitudes towards redistribution. *Polit. Psychol.* 40, 1099–1018. doi: 10.1111/pops.12580
- Asbrock, F., Jaschke, F., and Freisenhausen, A.-L. (2017). “When “good guys” turn bad – The impact of the nature of threat on authoritarian reactions by high- and low-authoritarians,” in *Presentation at the 40th Annual Scientific Meeting of the ISPP* (Edinburgh).
- Baumard, N. (2018). Psychological origins of the industrial revolution. *Brain Behav. Sci.* 42:e189. doi: 10.1017/S0140525X1800211X
- Baumeister, R. F. (2005). *The Cultural Animal. Human Nature, Meaning, and Social Life*. Oxford; New York, NY: Oxford UP. doi: 10.1093/acprof:oso/9780195167030.001.0001
- Belsky, J. (2012). “An evolutionary perspective on child development in the context of war and political violence,” in *The Oxford Handbook of Evolutionary Perspectives on Violence, Homicide, and War*, eds T. K. Shackelford and V. A. Weekes-Shackelford (Oxford; New York, NY: Oxford UP), 393–410.
- Berggren, H., and Trägårdh, L. (2006/2015). *Är Svensken Människa? Gemenskap och Beroende I det Moderna Sverige*. Stockholm: Nordsteds Förlag.
- Bivens, J., and Mishel, L. (2015). *Understanding the Historic Divergence Between Productivity and a Typical Worker's Pay. Why It Matters and Why It's Real*. Economic Policy Institute/Briefing Papers 406. Available online at: <http://www.epi.org/publication/understanding-the-historic-divergence-between-productivity-and-a-typical-workers-pay-why-it-matters-and-why-its-real/>
- Blatt, S. J., and Levy, K. N. (2003). Attachment theory, psychoanalysis, personality development, and psychopathology. *Psychoanal. Inquiry* 23, 102–150. doi: 10.1080/07351692309349028
- Boehm, C., and Flack, J. C. (2010). “The emergence of simple and complex power structures through social niche construction,” in *The Social Psychology of Power*, eds A. Guinote and T. K. Vescio (New York, NY: Guilford Press), 46–86.
- Bos, L., Sheets, P., and Boomgaarden, H. G. (2018). The role of implicit attitudes in populist radical-right support. *Polit. Psychol.* 39, 69–87. doi: 10.1111/pops.12401
- Bourke, J. (2005). *Fear. A Cultural History*. Emerville, CA: Shoemaker & Hoard.
- Boyce, C. J., Wood, A. M., Banks, J., Clark, A. E., and Brown, G. D. A. (2013). Money, well-being, and loss aversion: does an income loss have a greater effect on well-being than an equivalent income gain? *Psychol. Sci.* 24, 2557–2562. doi: 10.1177/0956797613496436
- Boyce, C. J., Wood, A. M., and Brown, G. D. A. (2010). The dark side of conscientiousness: conscientious people experience greater drops in life satisfaction following unemployment. *J. Res. Pers.* 44, 535–539. doi: 10.1016/j.jrp.2010.05.001
- Boyce, C. J., Wood, A. M., Daly, M., and Sedikides, C. (2015). Personality change following unemployment. *J. Appl. Psychol.* 100, 991–1011. doi: 10.1037/a0038647
- Boyce, C. J., Wood, A. M., and Ferguson, E. (2016). Individual differences in loss aversion: conscientiousness predicts how life satisfaction responds to losses versus gains in income. *Pers. Soc. Psychol. Bull.* 42, 471–484. doi: 10.1177/0146167216634060
- Brady, W. J., Wills, J. A., Jost, J. T., Tucker, J. A., and Van Bavel, J. J. (2017). Emotion shapes the diffusion of moralized content in social networks. *Proc. Natl. Acad. Sci. U.S.A.* 114, 7313–7318. doi: 10.1073/pnas.1618923114
- Brandt, M. J., Wetherell, G., and Reyna, C. (2014). Liberals and conservatives can show similarities in negativity bias. *Behav. Brain Sci.* 7, 307–308. doi: 10.1017/S0140525X13002513
- Brenner, R. (2006). *The Economics of Global Turbulence: The Advanced Capitalist Economies From Long Boom to Long Downturn*. London: Verso.
- Brooks, D. (2017, January 8). The Self-Reliant Generation. *NYTimes*.
- Brown-Ianuzzi, J. L., Lundberg, K. B., Kay, A. C., and Payne, B. K. (2015). Subjective status shapes political preferences. *Psychol. Sci.* 26, 15–26. doi: 10.1177/0956797614553947
- Bruff, I., and Tansel, C. B. (2018). Authoritarian neoliberalism: trajectories of knowledge production and praxis. *Globalizations* 16, 233–244. doi: 10.1080/14747731.2018.1502497
- Bruff, I., and Tansel, C. B. (eds.). (2019). *Authoritarian Neoliberalism: Philosophies, Practices and Contestations*. London; New York, NY: Routledge.
- Brynjolfsson, E., and McAfee, A. (2014). *The Second Machine Age. Work, Progress, and Prosperity in a Time of Brilliant Technologies*. New York, NY; London: W. W. Norton & Co.
- Caprara, G. V., and Vecchione, M. (2018). On the Left and Right ideological divide: historical accounts and contemporary perspectives. *Adv. Polit. Psychol.* 39(Suppl. 1), 49–83. doi: 10.1111/pops.12476
- Case, A., and Deaton, A. (2015a). “Suicide, age, and wellbeing: an empirical investigation,” in *NBER Working Paper No. 21279* (Chicago, IL: University of Chicago Press). doi: 10.3386/w21279
- Case, A., and Deaton, A. (2015b). Rising morbidity and mortality in midlife among white non-Hispanic Americans in the 21st century. *Proc. Natl. Acad. Sci. U.S.A.* 112, 15078–15083. doi: 10.1073/pnas.1518393112
- Castano, E., Leidner, B., Bonacossa, A., Nikkah, J., Perrull, R., Spencer, B., et al. (2011). Ideology, fear of death, and death anxiety. *Polit. Psychol.* 32, 601–621. doi: 10.1111/j.1467-9221.2011.00822.x
- Castel, R. (1996). *Les Métamorphoses de la Question Sociale: Une Cronique du Salarial*. Paris: Gallimard.
- Chambers, J. R., Schlenker, B. R., and Collisson, B. (2013). Ideology and prejudice: the role of value conflicts. *Psychol. Sci.* 24, 140–149. doi: 10.1177/0956797612447820
- Ciuk, D. J., Lupton, R. M., and Thornton, J. R. (2018). Values voters: the conditional effect of income on the relationship between core values and political attitudes and behavior. *Polit. Psychol.* 39, 869–888. doi: 10.1111/pops.12442
- Clifford, S. (2019). How emotional frames moralize and polarize political attitudes. *Polit. Psychol.* 40, 75–91. doi: 10.1111/pops.12507
- Cloninger, K. (2011). “Hope rekindled: Well-being, humanism, and education,” in *Origins of Altruism and Cooperation*, eds R. W. Sussman and R. C. Cloninger (New York, NY: Springer), 377–398. doi: 10.1007/978-1-4419-9520-9_22
- Cohen, P. (2017, May 31). Steady jobs, but with pay and hours that are anything but. *NYTimes*.
- Convay, L. G. III, Houck, S. C., Gornick, L. J., and Repke, M. A. (2018). Finding the Loch Ness monster: left-wing authoritarianism in the United States. *Polit. Psychol.* 39, 1049–1067. doi: 10.1111/pops.12470
- Cooper, M. (2014). *Cut Adrift. Families in Insecure Times*. Berkeley, CA; Los Angeles, CA; London: University of California Press.
- Crawford, J. T., Jussim, L., Cain, T. R., and Cohen, F. (2013). Right wing authoritarianism and social dominance orientation differentially predict biased evaluations of media reports. *J. Appl. Soc. Psychol.* 43, 163–174. doi: 10.1111/j.1559-1816.2012.00990.x
- Cross, J. R., and Fletcher, K. L. (2011). Associations of parental and peer characteristics with adolescents’ social dominance orientation. *J. Youth Adolesc.* 40, 694–706. doi: 10.1007/s10964-010-9585-7
- De Botton, A. (2005). *Status Anxiety*. New York, NY: Vintage International.
- De Zavala, A. G., Cichocka, A., Eidelson, R., and Jayawickreme, N. (2017a). Collective narcissism and its social consequences. *J. Pers. Soc. Psychol.* 97, 1074–1096. doi: 10.1037/a0016904
- De Zavala, A. G., Guerra, R., and Simao, C. (2017b). The relationship between the Brexit vote and individual predictors of prejudice: collective narcissism, right wing authoritarianism, social dominance orientations. *Front. Psychol.* 8:2023. doi: 10.3389/fpsyg.2017.02023

- Deal, J. J., and Levenson, A. (2016). *What Millennials Want From Work: How to Maximize Engagement in Today's Workforce*. McGraw-Hill.
- Del Giudice, M., Ellis, B. J., and Shirlcliff, E. A. (2013). "Making sense of stress: an evolutionary-developmental framework," in *Adaptive and Maladaptive Aspects of Developmental Stress*, eds G. Laviola and S. Macri (New York, NY: Springer), 23–43. doi: 10.1007/978-1-4614-5605-6_2
- Delton, A., Petersen, M. B., DeScioli, P., and Robertson, T. E. (2018). Need, compassion, and support for social welfare. *Polit. Psychol.* 39, 907–924. doi: 10.1111/pops.12450
- Dervin, D. (2015). Political leaders and psychohistorical approaches in a time of borderline polarization. *J. Psychohist.* 43, 89–109. doi: 10.1057/978-1-137-54544-2_4
- Dervin, D. (2018). The auction blocks, the battlefield angels, and the politics of purity. *J. Psychohist.* 46, 100–115. Available online at: <https://www.questia.com/library/journal/1P4-2116796194/the-auction-block-the-battlefield-angels-and-the>
- DeScioli, P. (2016). The side-taking hypothesis for moral judgment. *Curr. Opin. Psychol.* 7, 23–27. doi: 10.1016/j.copsyc.2015.07.002
- Dickerson, S. S., and Kemeny, M. E. (2004). Acute stressors and cortisol responses: a theoretical integration and synthesis of laboratory research. *Psychol. Bull.* 130, 355–391. doi: 10.1037/0033-2909.130.3.355
- DiGarcia, J. A., Shrivasth, A. V., and Tronic, E. (2013). "The everyday stress resilience hypothesis: unfolding resilience from a perspective of everyday stress and coping," in *Adaptive and Maladaptive Aspects of Developmental Stress*, eds G. Laviola and S. Macri (New York, NY: Springer), 67–93. doi: 10.1007/978-1-4614-5605-6_4
- Dörre, K. (2018). "Demokratische Klassenpolitik - eine Antwort auf den Rechtspopulismus," in *Auf dem Wege in eine andere Republik. Neoliberalismus, Standortnationalismus und Rechtspopulismus*, eds C. Butterwegge, G. Hentges, and B. Lösch (Basel: Beltz Juventa), 120–143.
- Doty, R. M., and Peterson, B. E., and Winter, D. G. (1991). Threat and authoritarianism in the United States, 1978–1987. *J. Pers. Soc. Psychol.* 61, 629–640. doi: 10.1037/0022-3514.61.4.629
- Duckitt, J. (2001). A dual-process cognitive motivational theory of ideology and prejudice. *Adv. Exp. Soc. Psychol.* 33, 41–114. doi: 10.1016/S0065-2601(01)80004-6
- Duckitt, J. (2006). Differential effects of right wing authoritarianism and social dominance orientation on outgroup attitudes and their mediation by threat from and competitiveness to outgroups. *Pers. Soc. Psychol. Bull.* 32, 684–696. doi: 10.1177/0146167205284282
- Duckitt, J. (2013). Introduction of a special section on authoritarianism in societal context: the role of threat. *Int. J. Psychol.* 48, 1–5. doi: 10.1080/00207594.2012.738298
- Duckitt, J., and Fischer, K. (2003). The impact of social threat on worldview and political attitudes. *Polit. Psychol.* 24, 199–222. doi: 10.1111/0162-895X.00322
- Duckitt, J., and Sibley, C. G. (2009). "A dual-process motivational model of ideological attitudes and system justification," in *Social and Psychological Bases of Ideology and System Justification*, eds J. T. Jost, A. C. Kay, and H. Thorisdottir (New York, NY: Oxford UP), 292–313. doi: 10.1093/acprof:oso/9780195320916.003.012
- Duckitt, J., and Sibley, C. G. (2010). Personality, ideology, prejudice, and politics: a dual-process motivational model. *J. Pers.* 78, 1861–1894. doi: 10.1111/j.1467-6494.2010.00672.x
- Dynan, K. (2010). *The Income Rollercoaster: Rising Income Volatility and Its Implications*. Available online at: https://www.brookings.edu/wp-content/uploads/2016/06/0401_income_volatility_dynan.pdf
- Fatke, M. (2017). Personality traits and political ideology. A first global assessment. *Polit. Psychol.* 38, 881–889. doi: 10.1111/pops.12347
- Federico, C. M., and Malka, A. (2018). The contingent, contextual nature of the relationship between needs for security and certainty and political preferences: evidence and implications. *Adv. Polit. Psychol.* 39(Suppl. 1), 3–48. doi: 10.1111/pops.12477
- Federico, C. M., Weber, C. R., Ergun, D., and Hunt, C. (2013). Mapping the connections between politics and morality: the multiple sociopolitical orientations involved in moral intuition. *Polit. Psychol.* 34, 589–610. doi: 10.1111/pops.12006
- Feldman, S. (2003). Enforcing social conformity: a theory of authoritarianism. *Polit. Psychol.* 24, 41–74. doi: 10.1111/0162-895X.00316
- Feldman, S., and Johnston, C. D. (2014). Understanding the determinants of political ideology: implications of structural complexity. *Polit. Psychol.* 35, 337–358. doi: 10.1111/pops.12055
- Feldman, S., and Stenner, K. (1997). Perceived threat and authoritarianism. *Polit. Psychol.* 18, 741–770. doi: 10.1111/0162-895X.00077
- Fisher, P., Haslam, S. A., and Smith, L. (2010). "If you wrong us, shall we not revenge?" Social identity salience moderates support for retaliation in response to collective threat. *Group Dyn. Theor. Res. Pract.* 14, 143–150. doi: 10.1037/a0017970
- Flinn, M. V., Ponzi, D., Nepomnaschy, P., and Noone, R. (2013). "Ontogeny of stress reactivity in the human child: phenotypic flexibility, trade-offs, and pathology," in *Adaptive and Maladaptive Aspects of Developmental Stress*, eds G. Laviola and S. Macri (New York, NY: Springer), 95–120. doi: 10.1007/978-1-4614-5605-6_5
- Freeman, W. (2000). "A neurobiological role of music in social bonding," in *The Origins of Music*, eds N. L. Wallin, B. Merker, and S. Brown (Cambridge: The MIT Press), 411–424.
- Friesen, J. P., Kay, A. C., Eibach, R. P., and Galinsky, A. D. (2014). Seeking structure in social organization: compensatory control and the psychological advantages of hierarchy. *J. Pers. Soc. Psychol.* 106, 590–609. doi: 10.1037/a0035620
- Fukuyama, F. (2018). *Identity. The Demand for Dignity and the Politics of Resentment*. New York, NY: Farrar, Straus and Giroux.
- Garandeau, C. F., Lee, I. A., and Salmivalli, C. (2014). Inequality matters: classroom status hierarchy and adolescents' bullying. *J. Youth Adolesc.* 43, 1123–1133. doi: 10.1007/s10964-013-0040-4
- Gärtner, S., and Prado, S. (2016). Unlocking the social trap: inequality, social trust and the Scandinavian welfare state. *Soc. Sci. Hist.* 40, 33–62. doi: 10.1017/ssh.2015.80
- Gavrilets, S., and Fortunato, L. (2014). A solution to the collective action problem in between-group conflict with within-group inequality. *Nat. Commun.* 5, 1–11. doi: 10.1038/ncomms4526
- Giddens, A. (1991). *Modernity and Self-Identity*. Cambridge, UK: Polity.
- Gidgion, N., and Hall, P. A. (2017). The politics of social status: economic and cultural roots of the populist right. *Br. J. Sociol.* 68, 57–84. Available online at: <https://scholar.harvard.edu/files/hall/files/gidronhallbjs2017.pdf>
- Goodboy, A. K., Martin, M. M., Rittenour, C. E. (2016). Bullying as a display of social dominance orientation. *Commun. Res. Rep.* 33, 159–165. doi: 10.1080/08824096.2016.1154838
- Goodman, P. S., and Soble, J. (2017, October 7). Global economy's stubborn reality: Plenty of work, not enough pay. *NYTimes*.
- Graham, J., Haidt, J., and Nosek, B. A. (2009). Liberals and conservatives rely on different sets of moral foundations. *J. Pers. Soc. Psychol.* 96, 1029–1046. doi: 10.1037/a0015141
- Haider, A. (2018). *Mistaken Identity. Race and Class in the Age of Trump*. London: Verso.
- Haidt, J. (2012). *The Righteous Mind. Why Good People Are Divided by Religion and Politics*. New York, NY: Random House.
- Haidt, J., and Graham, J. (2007). When morality opposes justice: conservatives have moral intuitions that liberals may not recognize. *Soc. Justice Res.* 20, 98–116. doi: 10.1007/s11211-007-0034-z
- Harper, C., and Hogue, T. (2017). "Ontological insecurity in political orientation and identification," in *Presentation at the 40th annual scientific meeting of the ISPP July 2, 2017*.
- Hart, D., and Sussman, R. W. (2011). "The influence of predation on primate and early human evolution: Impetus for cooperation," in *Origins of Altruism and Cooperation*, eds R. W. Sussman and R. C. Cloninger (New York, NY: Springer), 19–40. doi: 10.1007/978-1-4419-9520-9_3
- Hawley, G. (2017). *Making Sense of the Alt-Right*. New York, NY: Columbia UP. doi: 10.7312/haw18512
- Heatherington, M. J., and Suhay, E. (2011). Authoritarianism, threat, and Americans' support for war on terror. *Am. J. Polit. Sci.* 55, 546–560. doi: 10.1111/j.1540-5907.2011.00514.x
- Heatherington, M. J., and Weiler, J. D. (2009). *Authoritarianism and Polarization in American Politics*. New York, NY: Cambridge UP. doi: 10.1017/CBO9780511802331
- Heylen, P., and Pauwels, L. J. (2015). The social roots of contemporary prejudice. *Int. J. Criminol. Sociol.* 4, 28–35. doi: 10.6000/1929-4409.2015.04.03

- Hibbing, J. R., Smith, K. B., and Alford, J. R. (2014a). Differences in negativity bias underlie variations in political ideology. *Behav. Brain Sci.* 37, 297–307. doi: 10.1017/S0140525X13001192
- Hibbing, J. R., Smith, K. B., and Alford, J. R. (2014b). Negativity bias and political preferences: a response to commentators. *Behav. Brain Sci.* 37, 333–341. doi: 10.1017/S0140525X1300280X
- Hirschl, T. A., and Rank, M. R. (2015). The life course dynamics of affluence. *PLoS ONE* 10:e0116370. doi: 10.1371/journal.pone.0116370
- Hobfoll, S. E. (1989). Conservation of resources: a new attempt at conceptualizing stress. *Am. Psychol.* 44, 513–524. doi: 10.1037/0003-066X.44.3.513
- Hogg, M. A., and Adelman, J. (2013). Uncertainty-identity theory: extreme groups, radical behavior, and authoritarian leadership. *J. Soc. Issues* 69, 436–454. doi: 10.1111/josi.12023
- Hruschka, D. J., and Henrich, J. (2013). Institutions, parasites and the persistence of ingroup references. *PLoS ONE* 8:e6342. doi: 10.1371/journal.pone.0063642
- Inglehart, R., and Welzel, C. (2005). *Modernization, Cultural Change and Democracy: The Human Development Sequence*. New York, NY: Cambridge UP.
- Inglehart, R. F., and Norris, P. (2017). Trump and the xenophobic populist parties: the silent revolution in Reverse. *Perspect. Polit.* 15, 443–54. doi: 10.1017/S1537592717000111
- Jasko, K., Lafree, G., and Kruglanski, A. W. (2017). Quest for significance and violent extremism: the case of domestic radicalization. *Pol. Psychol.* 38, 815–831. doi: 10.1111/pops.12376
- Jensen, C., and Svendsen, G. T. (2009). Giving money to strangers. European welfare states and social trust. *Int. J. Soc. Welfare* 20, 3–9. doi: 10.1111/j.1468-2397.2009.00668.x
- Jilani, Z. (2018, September 10). People might be getting the Swedish election all wrong. *The Intercept*. Available online at: <https://theintercept.com/2018/09/10/sweden-election-immigration-far-right-inequality/>
- Johnston, C. D. (2017). “Open versus closed: personality, identity, and the politics of redistribution,” in *Presentation at the 40th Annual Scientific Meeting of the ISPP* (Edinburgh). doi: 10.1017/9781316341452
- Johnston, C. D. (2018). Authoritarianism, affective polarization, and economic ideology. *Adv. Polit. Psychol.* 39(Suppl. 1), 219–238. doi: 10.1111/pops.12483
- Johnston, C. D., Lavine, H. G., and Federico, C. M. (2017). *Personality, Parties, and the Politics of Redistribution*. New York, NY: Cambridge UP.
- Johnston, C. D., and Madson, G. (2017). “Loss aversion, personality, and political ideology,” in *Presentation at the 40th Annual Scientific Meeting of the ISPP* (Edinburgh).
- Jonas, E., and Fritzsche, I. (2013). Destined to die but not to wage war. How existential threat can contribute to escalation or de-escalation of violent intergroup conflict. *Am. Psychol.* 68, 543–558. doi: 10.1037/a0033052
- Jost, J. T. (2006). The end of ideology. *Am. Psychol.* 61, 651–670. doi: 10.1037/0003-066X.61.7.651
- Jost, J. T. (2017). Working-class conservatism: a system-justification perspective. *Curr. Opin. Psychol.* 2017, 73–78. doi: 10.1016/j.copsyc.2017.08.020
- Jost, J. T., Glaser, J., Kruglanski, A. W., and Sulloway, F. J. (2003). Political conservatism as motivated social cognition. *Psychol. Bull.* 129, 339–375. doi: 10.1037/0033-2909.129.3.339
- Jost, J. T., Langer, M., Badaan, V., Azevedo, F., Etchezahar, E., Ungaret, J., et al. (2017). Ideology and the limits of self-interest: system justification motivation and conservative advantages in mass politics. *Transl. Issues Psychol. Sci.* 3, e1–e26. doi: 10.1037/tps0000127
- Jost, J. T., and van der Toorn, J. (2012). “System justification theory,” in *Handbook of Theories of Social Psychology*, eds P. A. M. Van Lange, A. W. Kruglanski, and E. T. Higgins (London: Sage), 313–343. doi: 10.4135/9781446249222.n42
- Jugert, P., and Duckitt, J. (2009). Inter- and intrapersonal processes underlying authoritarianism: the role of social conformity and personal need for structure. *Euro. J. Pers.* 23, 607–621. doi: 10.1002/per.735
- Kay, A., and Eibach, R. P. (2013). Compensatory control and implications for ideological extremism. *J. Soc. Issues* 69, 564–585. doi: 10.1111/josi.12029
- Kelley, J., and Evans, M. (2016). Societal income inequality and individual subjective well-being: results from 68 societies and over 200,000 individuals, 1981–2008. *Soc. Sci. Res.* 62, 1–23. doi: 10.1016/j.ssresearch.2016.04.020
- Kenrick, D., Neuberg, S., and White, A. (2013). “Relationship from an evolutionary life history perspective,” in *The Oxford Handbook of Close Relationships*, eds J. A. Simpson and L. Campbell (Oxford: Oxford UP), 13–38. doi: 10.1093/oxfordhdb/9780195398694.013.0002
- Kesebir, S. (2012). The superorganism account of human sociality: how and when human groups are like beehives. *Pers. Soc. Psychol. Rev.* 16, 233–261. doi: 10.1177/1088868311430834
- Kinnunen, H., and Mäki-Franti, P. (2016). Pitkittynyt taantuma heikentää nuorten sukupolvien asemaa Suomessa. *Euro and talous*. Available online at: <http://www.eurojatalous.fi/fi/2016/artikkelit/pitkittynyt-taantuma-heikentaa-nuorten-sukupolvien-asemaa-suomessa/>
- Kinnvall, C., and Mitzen, J. (2017). An introduction to the special issue: ontological securities in world politics. *Cooper. Conflict* 52, 3–11. doi: 10.1177/0010836716653162
- Kohut, H. (1978/1985). “Self-psychology and the sciences of man,” in *Self Psychology and the Humanities. Reflections on a New Psychoanalytic Approach*, ed C. B. Strozier (New York, NY; London: W. W. Norton and Company).
- Koppetsch, C. (2010). “Jenseits der individualisierten Mittelstandsgesellschaft? Zur Ambivalenz subjektiver Lebensführung in unsicheren Zeiten,” in *Individualisierungen. Ein Vierteljahrhundert “jenseits von Stand und Klasse”?*, eds P. A. Berger and R. Hitzler (Wiesbaden: VS Verlag), 224–243. doi: 10.1007/978-3-531-92589-9_12
- Krastev, I. (2017). “Majoritarian futures,” in *The Great Regression*, ed H. Geiselberger (Cambridge; Malden, MA: Polity), 65–77.
- Kruglanski, A. W., Gelfand, M. J., Belanger, J. J., Sheveland, A., Hetiarachichi, M., and Gunaratna, R. (2014). The psychology of radicalization and deradicalization: how significance quest impacts violent extremism. *Adv. Polit. Psychol.* 35, 69–93. doi: 10.1111/pops.12163
- Kuziemko, I., Buell, R. W., Reich, T., and Norton, M. I. (2014). Last place aversion: evidence and redistributive implications. *Q. J. Econ.* 129, 105–49. doi: 10.1093/qje/qjt035
- Lakner, C. (2017). “Global inequality,” in *After Piketty. The Agenda of Economics and Inequality*, eds H. Boushey, B. J. Delong, and M. Steinbaum (Cambridge, MA; London: Harvard UP), 259–279. doi: 10.4159/9780674978195-012
- Landau, M. J., Kay, A. C., and Whitson, J. A. (2015). Compensatory control and the appeal of a structured world. *Psychol. Bull.* 141, 694–722. doi: 10.1037/a0038703
- Larsen, C. A. (2008). The institutional logic of welfare attitudes. How welfare regimes influence public support. *Comp. Polit. Stud.* 41, 145–168. doi: 10.1177/0010414006295234
- Leary, M. R., Twenge, J. M., and Quinlivan, E. (2006). Interpersonal rejection as a determinant of anger and aggression. *Pers. Soc. Psychol. Rev.* 10, 111–132. doi: 10.1207/s15327957pspr1002_2
- Lefkofridi, Z., and Michel, E. (2016). “The electoral politics of solidarity,” in *The Strains of Commitment: the Political Sources of Solidarity in Diverse Societies*, eds K. Banting and W. Kymlicka (Oxford: Oxford UP), 233–267. doi: 10.1093/acprof:oso/9780198795452.003.0009
- Lefkofridi, Z., Wagner, M., and Willmann, J. E. (2014). Left-authoritarians and policy representation in Western Europe: electoral choice across ideological dimensions. *West Eur. Polit.* 37, 65–90. doi: 10.1080/01402382.2013.818354
- Liddle, J. R., Schakelwood, T. K., and Weekes-Schakelwood, T. A. (2012). Why can’t we all just get along? Evolutionary perspective on violence, homicide, and war. *Rev. Gen. Psychol.* 16, 24–36. doi: 10.1037/a0026610
- Lilla (2016). *The Shipwrecked Mind: On Political Reaction*. New York, NY: New York Review Books.
- Ludeke, S., Klitgaard, C. N., and Vitriol, J. (2017). “Comprehensively measured authoritarianism does predict vote choice,” in *Presentation at the 40th Annual Scientific Meeting of the ISPP* (Edinburgh).
- Luttrell, R., and McGrath, Karen (2015). *The Millennial Mindset. Unravelling Fact From Fiction*. Lanham: Rowman & Littlefield.
- Malka, A., Lelkes, Y., and Soto, C. J. (2017a). Are cultural and economic conservatism positively correlated? A large-scale cross-national test. *Br. J. Polit. Sci.* 49, 1045–1069. doi: 10.1017/S0007123417000072
- Malka, A., Lelkes, Y., and Soto, C. J. (2017b). “Right vs. left, or protection vs. freedom? political attitude organization among mass publics round the world,” in *Presentation at the 40th annual scientific meeting of the ISPP* (Edinburgh).
- Malka, A., and Soto, C. J. (2015). Rigidity of the economic right? Menu-independent and menu-dependent influences of psychological dispositions on political attitudes. *Curr. Dir. Psychol. Sci.* 24, 137–142. doi: 10.1177/096372141556340
- Mann, M. (1993/2013). *The Sources of Social Power. Vol. 4: Globalizations, 1945–2011*. Cambridge: Cambridge UP.

- Mann, M. (2012). *The Sources of Social Power. Vol. 2: The Rise of Classes and Nation-States, 1760-1914*. Cambridge; New York, NY: Cambridge UP.
- Markovits, D. (2019). *The Meritocracy Trap*. Allen Lane.
- Mason, L., and Wronski, J. (2018). One tribe to bind them all: How our social group attachments strengthen partisanship. *Adv. Polit. Psychol.* 39(Suppl. 1), 257–278. doi: 10.1111/pops.12485
- McCann, S. J. H. (2008). Societal threat, authoritarianism, conservatism and U.S. state death penalty sentencing. *J. Pers. Soc. Psychol.* 94, 913–923. doi: 10.1037/0022-3514.94.5.913
- McCullough, M. E., Pedersen, E. J., Schroeder, J. M., Tabak, B. A., Carver, C. S. (2013). Harsh childhood environmental characteristics predict exploitation and retaliation in humans. *Proc. R. Soc. Lond. B Biol. Sci.* 280:20122104. doi: 10.1098/rspb.2012.2104
- McGregor, H., Leiber, J., Greenberg, J., Solomon, S., Arndt, J., Simon, L., et al. (1998). Terror management and aggression: evidence that mortality salience promotes aggression against worldview-threatening individuals. *J. Pers. Soc. Psychol.* 74, 590–605. doi: 10.1037/0022-3514.74.3.590
- Milanović, B. (2016). *Global Inequality. A New Approach for the Age of Globalization*. Cambridge, MA; London: Harvard UP. doi: 10.4159/9780674969797
- Mirisola, A., Roccato, M., Russo, S., Spagna, G., and Vieno, A. (2014). Societal threat to safety, compensatory control, and right-wing authoritarianism. *Polit. Psychol.* 35, 795–812. doi: 10.1111/pops.12048
- Moore, B. (1993). *Social Origins of Dictatorship and Democracy. Lord and Peasant in the Making of the Modern World*. Boston, MA: Beacon Press.
- Mudde, C. (2013). Three decades of populist radical right parties in Western Europe: so what? *Eur. J. Polit. Res.* 52, 1–19. doi: 10.1111/j.1475-6765.2012.02065.x
- Mudde, C. (2015). “Populist radical-right parties in Europe today,” in *Transformations of Populism in Europe and the Americas: History and Recent Trends*, eds J. Abromeit, B. M. Chesterton, and Y. Norman (London: Bloomsbury Academic), 295–307.
- Mullainathan, S., and Shafir, E. (2013). *Scarcity. The New Science of Having Less and How It Defines Our Lives*. New York, NY: Henry Holt and Company.
- Nachtwey, O. (2016). *Die Abstiegsesellschaft. Über das Aufbegehren in der regressiven Moderne*. Berlin: Suhrkamp.
- Nagle, A. (2017). *Kill All Normies. Online Culture Wars from 4Chan and Tumblr to Trump and Alt-right*. Winchester; Washington, DC: Zero Books.
- Nail, P. R., McGrerog, I., Drinkwater, A. E., Steele, G. M., and Thompson, A. W. (2009). Threat causes liberals to think like conservatives. *J. Exp. Soc. Psychol.* 45, 901–907. doi: 10.1016/j.jesp.2009.04.013
- Newson, L., and Richerson, P. (2009). Why do people become modern? A Darwinian explanation. *Popul. Dev. Rev.* 35, 117–158. doi: 10.1111/j.1728-4457.2009.00263.x
- Norris, C. J., Larsen, J. T., Crawford, L. E., and Cacioppo, J. T. (2011). Better (or worse) for some than others: individual differences in the positivity offset and negativity bias. *J. Res. Pers.* 45, 100–111. doi: 10.1016/j.jrp.2010.12.001
- Nussbaum, M. (1997). *Cultivating Humanity: A Classical Defense of Reform in Liberal Education*. Cambridge, MA: Harvard UP. doi: 10.2307/j.ctvjgth8
- Onraet, E., Assche, J. V., Roets, A., Haesevoets, T., and Hiel, A. V. (2016). The happiness gap between conservatives and liberals depends on country-level threat. A worldwide multilevel study. *Soc. Psychol. Pers. Sci.* 8, 11–19. doi: 10.1177/1948550616662125
- Passini, S. (2017). Different ways of being authoritarian: the distinct effects of authoritarian dimensions on values and prejudice. *Polit. Psychol.* 38, 73–86. doi: 10.1111/pops.12309
- Petersen, M. B., Sznycer, D., Sell, A., Cosmides, L., and Tooby, J. (2013). The ancestral logic of politics: upper-body length regulates men’s assertion of self-interests over economic redistribution. *Psychol. Sci.* 24, 1098–1103. doi: 10.1177/0956797612466415
- Peterson, B. E., and Zurbriggen, E. L. (2010). Gender, sexuality, and the authoritarian personality. *J. Pers.* 78, 1801–1826. doi: 10.1111/j.1467-6494.2010.00670.x
- Peterson, M. B. (2015). Evolutionary political psychology: on the origins and structure of biases in politics. *Adv. Polit. Psychol.* 36, 45–78. doi: 10.1111/pops.12237
- Pew Charitable Trusts (2011). *Economic Mobility and the American Dream: Where Do We Stand in the Wake of the Great Recession*. Economic Mobility Project. Available online at: http://www.pewtrusts.org/~media/legacy/uploadedfiles/pes_assets/2011/pew_emp_poll_summary2011.pdf
- Pew Research Center, Social and Demographic Trends (2015). *The American Middle Class Is Losing Ground. No Longer the Majority and Falling Behind Financially*. Available online at: <http://www.pewsocialtrends.org/2015/12/09/the-american-middle-class-is-losing-ground/>
- Pew Research Center/Global Attitudes and Trends (2014). *Emerging and Developing Economies Much More Optimistic than Rich Countries about the Future*. Available online at: <http://www.pewglobal.org/2014/10/09/emerging-and-developing-economies-much-more-optimistic-than-rich-countries-about-the-future/>
- Piketty, T. (2014). *Capital in the Twenty-First Century* (transl. Arthur Goldhammer). Cambridge, MA; London: The Belknap Press. doi: 10.4159/9780674369542
- Pinker, S. (2018). *Enlightenment Now. The Case for Reason, Science, Humanism and Progress*. New York, NY: Allen Lane.
- Pratto, S., and Hegarty, P. (2000). The political psychology of reproductive strategies. *Psychol. Sci.* 11, 57–62. doi: 10.1111/1467-9280.00215
- Price, M. E., Sheely-Skeffington, J., Sidnaus, J., and Pound, N. (2017). Is sociopolitical egalitarianism related to bodily and facial formidability of men? *Evol. Hum. Behav.* 38, 626–634. doi: 10.1016/j.evolhumbehav.2017.04.001
- Proulx, T., Inzlicht, M., and Harmon-Jones, E. (2012). Understanding all inconsistency compensation as a palliative response to violated expectations. *Trends Cogn. Sci.* 16, 285–291. doi: 10.1016/j.tics.2012.04.002
- Reynié, D. (2013). *Les Nouveaux Populismes*. Nouvelle édition augmentée. Paris: Pluriel.
- Richards, B. (2018). Exploring malignancies: narcissism and paranoia today. *Psychoanal. Cult. Soc.* 23, 15–27. doi: 10.1057/s41282-018-0075-2
- Rose, S. J. (2016). *The Growing Size and Income of the Upper Middle Class*. Washington, DC: Urban Institute.
- Rothmund, T., Azevedo, F., Bromme, L. (2017). “Is right-wing populism a coherent belief system? Empirical analyses from the US and Germany,” in *Presentation at the 40th Annual Scientific Meeting of the ISPP* (Edinburgh).
- Safra, L., Baumard, N., and Chevalier, C. (2018). No strong evidence that authoritarian attitudes are driven by a lack of control. *Proc. Natl. Acad. Sci. U.S.A.* 115, E1076–E1077. doi: 10.1073/pnas.1721565115
- Sales, S. M. (1973). Threat as a factor in authoritarianism: an analysis of archival data. *J. Pers. Soc. Psychol.* 28, 44–57. doi: 10.1037/h0035588
- Sales, S. M., Friend, K. E. (1973). Success and failure as determinants of level of authoritarianism. *Behav. Sci.* 18, 163–172. doi: 10.1002/bs.3830180304
- Sasse, B. (2018). *Them. Why We Hate Each Other and How to Heal*. New York, NY: St. Martin’s Press.
- Schaffer, B., and Duckitt, J. (2013). The dimensional structure of people’s fears, threats, and concerns and their relationship with right-wing authoritarianism and social dominance orientation. *Int. J. Psychol.* 48, 6–17. doi: 10.1080/00207594.2012.696651
- Schmitt, J., Gould, E., and Bivens, J. (2018). *America’s Slow-Motion Wage Crisis. Four Decades of Slow and Unequal Growth*. Economic Policy Institute publication. Available online at: <https://www.epi.org/publication/americas-slow-motion-wage-crisis-four-decades-of-slow-and-unequal-growth-2/>
- Sharone, O. (2014). *Flawed System/Flawed Self: Job Searching and Unemployment Experiences*. Chicago, IL: University of Chicago Press.
- Siedentop, L. (2014). *Inventing the Individual. The Origins of Western Liberalism*. London: Allen Lane.
- Simpson, J. A., and Karantzas, G. C. (2019). Editorial overview: attachment in adulthood: a dynamic field with a rich past and bright future. *Curr. Opin. Psychol.* 25, 177–181. doi: 10.1016/j.copsyc.2018.10.012
- Sinn, J. S., and Hayes, M. (2018). Is political conservatism adaptive? Reinterpreting right-wing authoritarianism and social dominance orientation as evolved, sociofunctional strategies. *Polit. Psychol.* 39, 1123–1139. doi: 10.1111/pops.12475
- Sinn, J. S., and Hayes, M. W. (2017). Replacing the Moral Foundations: An evolutionary-coalitional theory of Liberal-Conservative differences. *Polit. Psychol.* 38, 1043–1064. doi: 10.1111/pops.12361
- Skitka, L. J., Mullen, E., Griffin, T., Hutchinson, S., and Chamberlin, B. (2002). Dispositions, scripts, or motivated correction? Understanding ideological differences in explanations for social problems. *J. Pers. Soc. Psychol.* 83, 470–483. doi: 10.1037/0022-3514.83.2.470

- Slobodian, Q., and Plehwe, D. (2018). "Neoliberals against Europe," in *Neoliberals Remains Market Rule and Political Ruptures*, eds W. Callison and Z. Manfredi (New York, NY: Fordham UP), 89–111. doi: 10.2307/j.ctvq4bz15.6
- Smith, A. (2010). *Nationalism: Theory, Ideology, History*. Cambridge: Polity.
- Starmans, C., Sheskin, M., and Bloom, P. (2017). Why people prefer unequal societies. *Nat. Hum. Behav.* 1, 1–7. doi: 10.1038/s41562-017-0082
- Stenner, K. (2005). *The Authoritarian Dynamic*. New York, NY: Cambridge UP. doi: 10.1017/CBO9780511614712
- Streeck, W. (2015). *Gekaufte Zeit. Die vertagte Krise des demokratischen Kapitalismus. Frankfurter Adorno-Vorlesungen*. Berlin: Suhrkamp.
- Temin, P. (2018). *The Vanishing Middle Class. Prejudice and Power in a Dual Economy*. Cambridge, MA; London: MIT Press. doi: 10.7551/mitpress/11787.001.0001
- Thorisdottir, H., and Jost, J. T. (2011). Motivated closed-mindedness mediates the effects of threat on political conservatives. *Polit. Psychol.* 32, 785–811. doi: 10.1111/j.1467-9221.2011.00840.x
- Thorisdottir, H., Jost, J. T., Kay, A. C. (2009). "On the social and psychological bases of ideology and system justification," in *Social and Psychological Bases of Ideology and System Justification*, eds J. Jost, A. C. Kay, and H. Thorisdottir (Oxford; New York, NY: Oxford UP), 3–23. doi: 10.1093/acprof:oso/9780195320916.003.001
- Thorisdottir, H., Jost, J. T., Liviatan, I., and Shrout, P. E. (2007). Psychological need and values underlying left-right political orientation: cross-national evidence from eastern and western Europe. *Public Opin. Q.* 71, 175–203. doi: 10.1093/poq/nfm008
- Tooze, A. (2018). *Crashed. How a Decade of Financial Crises Changed the World*. Allen Lane.
- Twenge, J. M., Honeycutt, N., Prislín, R., and Sherman, R. A. (2016). More polarized but more independent: political party identification and ideological self-categorization among U.S. adults, college students, and late adolescents, 1970–2015. *Pers. Soc. Psychol. Bull.* 42, 1364–1383. doi: 10.1177/0146167216660058
- Tyson, L., and Spence, M. (2017). "Exploring the effects of technology on income and wealth inequality," in *After Piketty. The Agenda of Economics and Inequality*, eds H. Boushey, B. J. DeLong, and M. Steinbaum (Cambridge, MA; London: Harvard UP), 170–208. doi: 10.4159/9780674978195
- van der Toorn, J., Feinberg, M., Jost, J. T., Kay, A. C., Tyler, T. R., Willer, R., et al. (2015). A sense of powerlessness fosters system justification: implications for the legitimation of authority, hierarchy and government. *Polit. Psychol.* 36, 93–110. doi: 10.1111/pops.12183
- Van Vugt, M., Hogan, R., Kaiser, R. B. (2008). Leadership, followership, and evolution: some lessons from the past. *Am. Psychol.* 63, 182–196. doi: 10.1037/0003-066X.63.3.182
- Volk, A. A., Camilleri, J. A., Dane, A. V., and Marini, Z. A. (2012). Is adolescent bullying an evolutionary adaptation? *Aggress. Behav.* 38, 222–238. doi: 10.1002/ab.21418
- Volkan, V. (1988). *Need to Have Enemies and Allies: From Clinical Practice to International Relationships*. Northvale, NJ: Jason Aronson.
- Wagner, T. (2018). *Die Angstmacher. 1968 und die Neuen Rechte*. Berlin: Aufbau.
- Weil, D. (2017). "Income inequality, wage determination, and the fissured workplace," in *After Piketty. The Agenda of Economics and Inequality*, eds H. Boushey, B. J. DeLong, and M. Steinbaum (Cambridge, MA; London: Harvard UP), 209–231. doi: 10.4159/9780674978195-010
- Weltzel, C. (2013). *Freedom Rising. Human Empowerment and the Quest for Emancipation*. New York, NY: Cambridge UP. doi: 10.1017/CBO9781139540919
- Whitman, D. (1998). *The Optimism Gap: The I'm OK, They Are Not Syndrome and the Myth of American Decline*. New York, NY: Bloomsbury.
- Wichter, Z. (2017, January 6). For Millennials, It's never too early to save for retirement. *NYTimes*.
- Wilkinson, K., and Pickett, K. (2018). *The Inner Level. How More Equal Societies Reduce Stress, Restore Sanity and Improve Everyone's Well-being*. London: Allen Lane.

Conflict of Interest: The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright © 2020 Siltala. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.



Gender Bias in the Evaluation of Teaching Materials

Asri Özgümüş¹, Holger A. Rau¹, Stefan T. Trautmann^{2,3*} and Christian König-Kersting⁴

¹ Department of Economics, University of Göttingen, Göttingen, Germany, ² Department of Economics, Heidelberg University, Heidelberg, Germany, ³ Department of Economics, Tilburg University, Tilburg, Netherlands, ⁴ Department of Banking and Finance, University of Innsbruck, Innsbruck, Austria

OPEN ACCESS

Edited by:

Guillermina Jasso,
New York University, United States

Reviewed by:

Martin Daumiller,
University of Augsburg, Germany
Carlos Chiclana,
CEU San Pablo University, Spain

*Correspondence:

Stefan T. Trautmann
stefan.trautmann@awi.uni-
heidelberg.de;
S.T.Trautmann@uvt.nl

Specialty section:

This article was submitted to
Gender, Sex and Sexualities,
a section of the journal
Frontiers in Psychology

Received: 10 March 2020

Accepted: 27 April 2020

Published: 26 May 2020

Citation:

Özgümüş A, Rau HA,
Trautmann ST and König-Kersting C
(2020) Gender Bias in the Evaluation
of Teaching Materials.
Front. Psychol. 11:1074.
doi: 10.3389/fpsyg.2020.01074

Gender differences in university teaching evaluations are well established, showing less favorable assessments of female instructors. It has also been shown that these differences cannot be linked to differences in students' course performance, which would justify differences in evaluations. The less favorable assessments are thus either due to differences in aspects that do not affect student performance, but do affect their class experience (e.g., likability of voice tone), or due to evaluation biases unrelated to any actual differences in class experience. We find support for the latter mechanism when any differences between instructors are excluded by having respondents judge identical teaching materials prepared by either a male or a female instructor. In two studies, we find that female instructors receive worse ratings than male instructors from male respondents. In one study, we also find that female instructors receive higher ratings from female raters. Gender bias vanishes for non-academic subjects in our data.

Keywords: gender equality, discrimination, teaching evaluations, higher education, experiment

INTRODUCTION

Glass Ceiling effects are a severe problem in labor markets (Bagues and Esteve-Volart, 2010; Christofides et al., 2013), with the underrepresentation of women in executive positions sometimes linked to the widely discussed gender pay gap (Blau and Kahn, 1994; Blau and Kahn, 2017; Petrongolo, 2019). An important question therefore concerns the underlying reasons for these glass ceiling effects. Supply-side issues may be responsible for the phenomenon. An example may be maternity leave as an important contributor to career breaks and glass ceiling effects (Cabeza et al., 2011). If, however, gender differences in preferences are relevant (Croson and Gneezy, 2009), women may be less competitive and may "shy away" from executive positions (Niederle and Vesterlund, 2007). Another source may be related to the demand side, with employers deciding about hiring or promotion possibly implicitly discriminating against women. Evaluation processes may play an important role in this case. For instance, Goldin and Rouse (2000) show for audition procedures of symphony orchestras that the likelihood of women advancing increases when blind auditions are applied. Biernat et al. (2012) find systematically higher performance ratings for male than for female attorneys by male supervisors in a Wall Street law firm. Similar labor market patterns are also observed in academia, where women are underrepresented at tenured faculty positions in many fields (Mengel et al., 2019). In the field of academia, evaluation processes play a key role for career advancement, and subtle biases in such processes may be part of an explanation of worse outcomes for female scholars (conditional on a candidate's quality). Although Ceci and Williams (2011) review argues that institutional aspects may be more important for

gender differences in career outcomes in academia, several recent studies have shown that subtle biases do exist. Examples include the assessment of scientific papers (Budden et al., 2008; Krawczyk and Smyk, 2016), the assessment of grant proposals for research funding (Bornmann et al., 2007), and potential discrimination in teaching evaluations (Boring, 2017; Mengel et al., 2019), which is the focus of the current study.

Potential gender bias in teaching evaluations may have implications for academic careers and faculty composition. However, while it is easy to compare evaluations of male and female instructors, it is difficult to identify a bias in such evaluations. If male instructors receive higher evaluations, this may indeed be due to better teaching performance. Alternatively, it may be due to a subjectively better class experience by participants (voice tone, body language, personality), even if unrelated to teaching effectiveness. A recent paper by Mengel et al. (2019) used a large dataset on randomly assigned tutorial groups to demonstrate that female instructors are rated lower than male instructors, and that these evaluations do not correlate with teaching effectiveness measures. However, the study cannot distinguish whether differences in evaluations emerge because of differences in the subjective experience of the evaluators, or whether there is a gender bias unrelated to any factual class experience. Although both phenomena can be construed as a bias, they arise from different sources, and need to be addressed in different ways. For example, it may be less clear how to approach gender differences emerging from differences in actual class experience.

The current study aims at separating these two explanations, which requires holding any subjective experiences exactly identical across male and female stimuli. Mengel et al. (2019) find that identical teaching material is evaluated differently depending on the instructor's gender. However, they argue that the difference in judgment of the teaching performance as a whole might have influenced the assessment of the teaching materials. MacNell et al. (2015) employ an online course format in which they assign a male and a female instructor once to their own identities and once to the identity of another person. Thus, they compare evaluations of the same person acting once as a male and once as a female. These authors find no overall differences in evaluations of the male and the female instructor by true gender, but they find that the female online identities received lower evaluations. The result therefore provides evidence for a gender bias because the teaching experience is held constant as online gender variation is within-person. Although the study makes an important contribution, a potential problem with MacNell et al.'s (2015) study is that construct validity is threatened by an inappropriate sampling of stimuli: first, only one male and one female identity are used as stimuli. Second, the identity of the stimuli is not experimentally manipulated because the true course instructors had to be used as stimuli. As demonstrated by Wells and Windschitl (1999), having a single stimulus representing a category (e.g., males) can lead to a confounding of the characteristics of the selected stimulus with the category. We may then misinterpret the effect of the unique stimulus characteristics as an effect of the characteristics of the category. Hence, it is possible that other aspects of the female stimulus' online name, rather than gender, influenced the

evaluations relative to the male stimulus' name (e.g., by names signaling education, or race, or age). Moreover, MacNell et al.'s (2015) sample is rather small with 43 self-selected participants who potentially know the instructors from other interactions, amplifying this problem.

Other studies have employed methodology that can identify gender bias independently of subjective experiences. For example, Arbuckle and Williams (2003) have students evaluate the sound recording of a lecture held in a gender-neutral voice, telling the participants that the speaker is either male or female. Krawczyk and Smyk (2016) have students judge the quality of academic papers, also telling the participants that the author is either male or female. Both studies find lower assessments of female instructors or researchers, respectively. A problem with the approach used in these two studies is that it is somewhat unnatural to explicitly withhold information on the exact speaker or researcher, and then provide a general level of gendered information ("a male author"). This may not just make the stimulus' gender salient (which is good if we study gender effects), but may also provide respondents with cues regarding the goals of the study or the researcher, and what constitute a desirable answer ("experimenter demand," Zizzo, 2010).

In two studies, we aim to probe these reports of gender bias. We hold any subjective-experience aspects across male and female stimuli constant by eliciting evaluations of teaching materials as suggested by Mengel et al.'s (2019) study. The controlled environment aims to isolate potential in-class effects from more fundamental aspects bias against female instructors. We control for the stimulus sampling problem (Wells and Windschitl, 1999) in MacNell et al. (2015) by using multiple stimuli for each gender, reducing the risk of uncontrolled variation within each gender. Other than in MacNell et al.'s (2015) study, there is also no past or current interaction between the evaluated instructors and participants. Moreover, we control for the potential demand effect of explicit gender information in Arbuckle and Williams (2003) and Krawczyk and Smyk (2016) by having gender enter in a subtle and fully natural way.

We test the Null hypotheses that no fundamental gender bias is observed if subjective experiences for raters with male and female instructors are eliminated, against the alternative hypotheses that biases persist in our design. Although the literature suggests a bias against female instructors, we use a more conservative two-sided hypothesis. Following the above-discussed literature, we test the hypothesis separately for male and female raters.

Hypothesis 1: Teaching materials are not evaluated based on the instructor's gender.

Hypothesis 2: Male evaluators do not rate teaching materials based on the instructor's gender.

Hypothesis 3: Female evaluators do not rate teaching materials based on the instructor's gender.

In Studies 1 and 2, we test these hypotheses formally in a controlled experimental setting. Study 1 uses a laboratory setting, and Study 2 employs an online environment.

STUDY 1

Methods

The first study aims to test for gender bias in a typical laboratory student sample. Subjects were asked to browse through two short sets of teaching slides for an economics course on a computer screen. They were told that “These slides are used in a similar way for teaching purposes at the University of Heidelberg. The material of the slides is extracted from a lecture in the economics program of the University of Heidelberg (Bachelor).” This information is true. All subjects in an experimental session were presented with the same two sets of slides. The two sets were identical in terms of content, but differed in terms of layout. The content and the two different layouts that we used were held constant across all participating subjects and across all experimental sessions. On the title screen of the two sets of slides, the title of the lecture and the name of the lecturer were shown, as would naturally be the case for lecture notes. The surname of the lecturer was always “Müller,” a common German name. This surname was held constant across all subjects and across all sessions. The first name was identical on the two sets of slides and held constant for all subjects in a session, but was randomly varied across sessions, implementing the gender variation in a between-person design. In each session, the participants received the two sets of slides with either a female first name or a male first name. These names were selected from a list of the most popular male and female names for children born in Germany in the 1970s (see **Supplementary Material**, Part A). That is, these first names are not unusual nowadays for middle-aged professors and lecturers. Note that we do not analyze the effects of separate names. The stimulus sampling argument by Wells and Windschitl (1999) implies that there will be variation in how far any male or female name may be assessed positively or negatively. By using multiple names, we reduce this variation, looking at average effects over all names. By using fictitious names and by having subjects assess teaching material used at a different university, we ruled out that they associate the material with a real person, which might influence assessments.

After browsing the two slide sets, participants were asked to evaluate them along several dimensions. The first six items concerned the general quality of the slides: (1) clear structure; (2) clear content; (3) interesting topic; (4) mathematically sophisticated; (5) quality of the English language; and (6) suitability for independently studying the course. Three further questions concerned the comparison of the two layouts presented: (7) preference for a bright vs. dark background; (8) preference for a corporate vs. neutral design; (9) readability of the slides’ color scheme (links to slides and questionnaire are in **Supplementary Material**, Part A). Because our study aims to test differences in the effect of the between-person gender variation on quality assessment, we do not analyze the within-person layout variation addressed in questions 7–9. The variation and questions relating to layout only serve to provide the study background for the participants. Because these questions refer to the same first name on the slides, they cannot be used to study gender effects. The subjective judgments were not

incentivized: There were no “correct” answers, thus incentivized judgments would have to be based on beliefs of others’ views (Krupka and Weber, 2013), which might be different from personal views. Moreover, while unincentivized questions may be noisier, it is not clear that complex incentive methods produce better data (Trautmann and Van de Kuilen, 2015). Incidentally, incentivization would be rather unnatural in the context of teaching evaluations.

In each session, all respondents were exposed to the same first name of an instructor. In addition, the two sets of slides that respondents were asked to browse and compare also featured the same name; they only differed in terms of layout. We applied a pen-and-paper style experiment, where subjects had to complete an evaluation sheet. On the sheet, before giving their evaluations, participants were first asked to indicate the name of the instructor given on the two sets of slides. They were told that this was needed to allow the researchers to unambiguously identify the slides the respondent saw, as there were different sets of slides (which is true given the variation in names across sessions). Participants also indicated their age, gender, and field of study.

While sample size was dictated by the subject pool availability, our sample is substantially larger than the other experimental studies (MacNell et al., 2015: 43 participants; Krawczyk and Smyk, 2016: 190 participants). In total 249 participants (118 men, 130 women, one subject did not indicate sex) with an average age of 23.45 (S.D. 5.32) participated at the University of Göttingen (Germany) experimental laboratory. On average, the experiment lasted 25 min. Subjects were paid a fee of €5 for participating in this experiment.

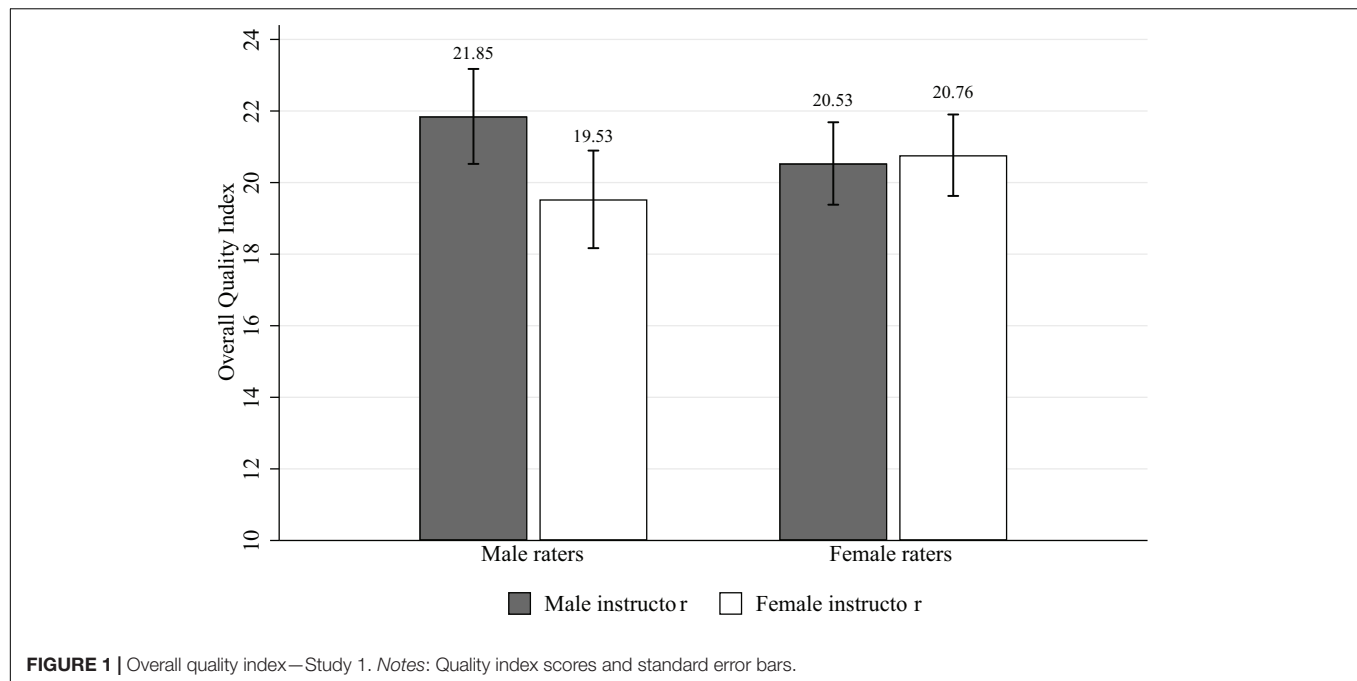
Results

We form an index of the raters’ perceived quality of the lecture slides by summing up the six quality related items for each rater (the three layout items cannot be included as they refer to a comparison of the layouts of two sets by the same person; these items were only included to support the cover story). Subjects stated for each item an evaluation on a seven-points Likert scale which we scored 0 = “I do not agree” to 6 = “I agree.” The index corresponds to the sum of the six evaluations (Cronbach’s $\alpha = 0.62$). Below we also give details for separate items. **Table 1** and **Figure 1** shows average index values for male and for female instructors, shown separately for all raters, male raters, and female raters, because Mengel et al. (2019) suggest that biased evaluations are driven by male raters. We drop three subjects in this analysis as they did not answer all questions

TABLE 1 | Overall quality index—Study 1.

	All raters	Male raters	Female raters
Male instructor, $N = 113$	21.15 (4.65)	21.85 (4.81)	20.53 (4.46)
Female instructor, $N = 133$	20.17 (5.08)	19.53 (5.46)	20.76 (4.70)
	$t(244) = 1.56,$ $p = 0.120$	$t(115) = 2.41,$ $p = 0.018$	$t(126) = 0.29,$ $p = 0.776$

Entries are values of the perceived quality index. Standard deviations are in parentheses.



encompassing our quality index. Although the literature speaks for a one-sided hypothesis, we report two-sided tests because it is conceivable that female raters hold more positive views of female instructors, and vice versa for males (see Study 2). In the raw comparisons, a *t*-test shows significantly higher evaluations of male instructors' slides for male raters, and no significant difference for female raters. The difference for male raters is 2.32, which is 47% of the total standard deviation of the quality index of 4.90 in the full sample of all male and female raters and instructors. This effect is almost of medium effect size (Cohen's $d = 0.45$) and it is larger than the one reported for teaching materials by Mengel et al. (2019).

Table 2 shows the results of multivariate analyses. Columns (1) and (2) provide the estimation of regressions of the overall quality index on dummy variables for a female rater, a female instructor, and the interaction of female rater and female instructor. Model 1 includes no further controls. Model 2 includes controls for age, student status, and field of study. **Table 2** reveals the substantially lower evaluations for female instructors. The positive interaction between female raters and female instructors indicates that the negative effect of female instructors is driven by male raters. Columns (3) and (4) provide the estimation of random effects panel regressions over all six items for each subject. That is, all six assessments by each rater enter separately, controlling for the intra-rater correlation. We again estimate the model with and without additional controls. Results replicate those for the overall index: both the negative effect for female raters and the positive interaction emerge significantly.

Table 3 provides the mean evaluation for male and female instructors on each of the six quality indicator items separately, with separate panels for male raters and female raters. There is a clear consistency for male raters: in all six items, the average score for male instructors' slides is higher than for

female instructors' slides. For female raters, three items are rated higher and three items are rated lower for male instructors. Due to large variability in the evaluations, few within-item differences are statistically significant when analyzed separately. Significantly higher evaluations for male instructors by male raters are observed for clarity of structure and clarity of content. For females, female instructors' slides are judged as more mathematically sophisticated. We conclude that male raters' higher ratings for male instructors are highly consistent across items and not driven by a specific dimension of evaluation. On the other hand, female raters seem rather gender-unbiased in their evaluations. As a result, we can reject Hypotheses 1 and 2, but cannot reject Hypothesis 3 in Study 1.

STUDY 2

In study 1, we replicated previous findings of more positive evaluations of teaching material, excluding any potential spillover effects from classroom experience. We thus support the idea of direct gender bias, not related to any direct teaching experience with the person assessed by the rater, as previously suggested by MacNeill et al. (2015). As in Mengel et al. (2019), we find effects driven by male raters. However, we do find some suggestive evidence that females may sometimes be evaluated better by female raters. In Study 2, we aim to generalize these analyses from our German student sample to a larger and more diverse subject pool in an online experiment on Amazon Mechanical Turk (MTurk).

Methods

Following the same paradigm as in Study 1, respondents are asked to evaluate a paired set of teaching slides with identical content

TABLE 2 | Multivariate analysis—Study 1.

Dependent variable:	(1) Overall quality index	(2) Overall quality index	(3) Individual item responses	(4) Individual item responses
Female rater	−1.32 (0.88)	−0.79 (0.90)	−0.23 (0.15)	−0.15 (0.15)
Female instructor	−2.32 (0.95)**	−2.33 (0.96)**	−0.38 (0.15)**	−0.38 (0.15)**
Female rater × female instructor	2.55 (1.25)**	2.40 (1.24)*	0.44 (0.21)**	0.42 (0.21)**
Controls	No	Yes	No	Yes
N raters/items (raters)	245	241	1485 (248)	1461 (244)

Columns (1) and (2) report OLS regression results, robust standard errors in parentheses. Columns (3) and (4) report panel regression results using six observations per rater. Controls are age, student status and field of study is economics, master program. * and ** indicate significance at the 10 and 5% level, respectively. Sample sizes vary across columns due to some missing values.

TABLE 3 | Separate item evaluations—Study 1.

	Clear structure	Clear content	Interesting topic	Mathematically sophisticated	Quality of English language	Suitable for independent study
Male raters						
Male instructor (N = 53)	3.89 (1.40)	4.02 (1.43)	3.36 (1.76)	3.68 (1.78)	4.26 (1.32)	2.64 (1.77)
Female instructor (N = 64)	3.16 (1.50)	3.53 (1.60)	2.98 (1.91)	3.53 (1.70)	4.09 (1.32)	2.23 (1.80)
	$t(115) = 2.70$, $p = 0.008$	$t(115) = 1.72$, $p = 0.089$	$t(115) = 1.10$, $p = 0.276$	$t(115) = 0.46$, $p = 0.648$	$t(115) = 0.70$, $p = 0.488$	$t(115) = 1.23$, $p = 0.222$
Female raters						
Male instructor (N = 60)	3.95 (1.36)	3.67 (1.34)	2.48 (1.72)	3.75 (1.72)	4.12 (1.40)	2.57 (1.75)
Female instructor (N = 68)	3.78 (1.24)	3.88 (1.54)	2.53 (1.80)	4.29 (1.61)	3.78 (1.56)	2.5 (1.67)
	$t(126) = 0.74$, $p = 0.460$	$t(126) = -0.84$, $p = 0.402$	$t(126) = -0.15$, $p = 0.883$	$t(126) = -1.84$, $p = 0.067$	$t(126) = 1.28$, $p = 0.204$	$t(126) = 0.22$, $p = 0.826$

Entries are mean evaluations and standard deviations in parentheses.

and two different layouts, with a between-person variation in the gender signaled by the first name of the instructor mentioned on the slides. To study the generality of the findings in Study 1, Study 2 makes use of a large sample of participants recruited through Amazon MTurk. Respondents browsed the slides and provided their assessments online using oTree (Chen et al., 2016; screenshot in **Supplementary Material**, Part B). The pool of respondents was restricted to participants in the United States, and thus a set of common male and female American names in the 1970s were used for the instructors (see **Supplementary Material**, Part A). Because the original set of slides was considered too technical for a mainly non-economics and partly non-academic pool at MTurk, and too long for the online format, we used a shorter and less technical set of slides that describes the different functions of financial intermediaries like banks. As in Study 1, respondents were told that these slides were used in a similar form in the bachelor economics program at the University of Heidelberg (Germany), which is true. There was still some mathematical content in the slides (see **Supplementary Material**, Part A), allowing us to keep the set of evaluation questions identical to Study 1.

To make the gender manipulation salient, at the beginning of the evaluation part, respondents were asked to type in the name of the instructor mentioned on the slides to identify the set they saw, because there were different sets. The assessment questionnaire and the resulting variables were identical to the one used in Study

1. Power calculations based on our results in Study 1 show that, to obtain an 80% power to detect the effect found in Study 1 in the full population, a sample size of 79 per cell (instructor gender X rater sex) is sufficient. We run a substantially larger total sample size of 804 participants (414 men, 386 women, one other gender, three did not reveal their sex; cells between 178 and 209 participants), to allow exploratory analysis of the subgroups of interest (those with college degree and those without) with sufficient power as calculated. The average age of the participants was 36.6 (SD 11.29), 345 held a Bachelor degree, and 125 were current students. Participants received a fixed remuneration of \$0.75 for their participation in the study.

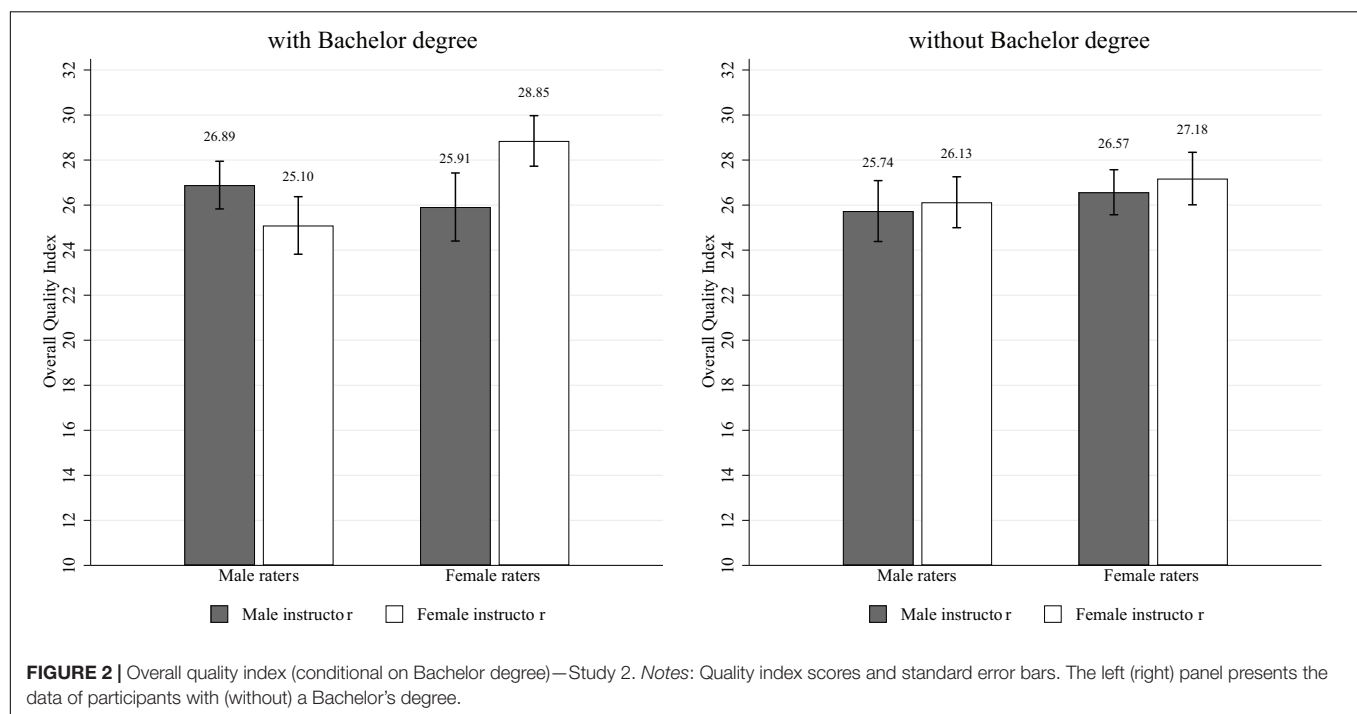
Results

Table 4 and **Figure 2** show results for the overall quality index as in **Table 1** and **Figure 1** (Cronbach's $\alpha = 0.82$). The table shows results for the full sample, as well as exploratory results for participants with a completed Bachelor degree and participants without a completed Bachelor degree. The former subsample is closer to Study 1 in that participants (1) were college students before and may thus share typical experiences with our pool in Study 1, and (2) may more easily relate to teaching materials and to assessing their content in the style of a typical teaching evaluation. **Table 4** provides two insights. First, in those without a college degree, no gender biases are observed. Second, in those with a college degree, we replicate the effect of male raters

TABLE 4 | Overall quality index—Study 2.

	All raters	Male raters	Female raters
Full sample		<i>N</i> = 414	<i>N</i> = 386
Male instructor, <i>N</i> = 419	26.32 (6.18)	26.33 (6.23)	26.31 (6.17)
Female instructor, <i>N</i> = 385	26.65 (6.07)	25.65 (6.12)	27.74 (5.83)
	$t(802) = -0.77$, $p = 0.443$	$t(412) = 1.11$, $p = 0.269$	$t(384) = -2.33$, $p = 0.020$
Bachelor degree: yes		<i>N</i> = 201	<i>N</i> = 142
Male instructor, <i>N</i> = 190	26.46 (6.13)	26.89 (5.52)	25.91 (6.88)
Female instructor, <i>N</i> = 155	26.61 (5.87)	25.10 (6.24)	28.85 (4.34)
	$t(343) = -0.228$, $p = 0.820$	$t(299) = 2.16$, $p = 0.032$	$t(140) = -2.91$, $p = 0.004$
Bachelor degree: no		<i>N</i> = 213	<i>N</i> = 244
Male instructor, <i>N</i> = 229	26.21 (6.23)	25.74 (6.88)	26.57 (5.67)
Female instructor, <i>N</i> = 230	26.68 (6.21)	26.13 (6.01)	27.18 (6.39)
	$t(457) = -0.82$, $p = 0.411$	$t(211) = -0.44$, $p = 0.646$	$t(242) = -0.79$, $p = 0.433$

Entries are values of the perceived quality index. Standard deviations are in parentheses.



assessing male-named slides more favorable. It turns out that we find a small effect size (Cohen's $d = 0.31$). However, in contrast to Study 1 where females were more balanced overall, we now observe that female raters assess female-named slides more favorable. Hence, in the online study, we do confirm the gender bias in male college educated raters, but also find a bias in female college educated raters, giving higher ratings to women. Interestingly, the latter effect is of stronger magnitude (Cohen's $d = 0.49$) and of medium size.

To obtain a further understanding of the relationship of these results with those of the student sample in Study 1, we run exploratory analyses also for the sample of current students in the MTurk sample. Clearly, this sample has low power according to

our power analysis and the results are at best suggestive. Results show that in the current student sample the gender bias for male raters emerges as in Study 1, with no clear effect for female raters (Supplementary Material, Part C).

Table 5 probes the robustness of the exploratory results in a multivariate analysis with and without controlling for age and background in economics. The raw results emerge consistently also in the multivariate analysis of the overall quality index and panel regressions considering each item separately. Again, no effects are observed for those without a college degree. The differential effect of college also replicates in a full multivariate analysis of the full sample with college as an interaction term (Supplementary Material, Part C). We also ran a robustness

TABLE 5 | Multivariate analysis—Study 2.

<i>Dependent variable:</i>	<i>(1) Overall quality index</i>	<i>(2) Overall quality index</i>	<i>(3) Individual item responses</i>	<i>(4) Individual item responses</i>
Bachelor degree: yes				
Female rater	−0.97 (0.93)	−0.85 (0.93)	−0.16 (0.14)	−0.14 (0.15)
Female instructor	−1.79 (0.84)**	−1.79 (0.84)**	−0.30 (0.14)**	−0.30 (0.14)**
Female rater × female instructor	4.73 (1.26)***	4.69 (1.26)***	0.79 (0.22)***	0.78 (0.22)***
Controls	No	Yes	No	Yes
N	343	343	2058 (343)	2058 (343)
Bachelor degree: no				
Female rater	0.84 (0.85)	0.66 (0.94)	0.14 (0.14)	0.11 (0.15)
Female instructor	0.39 (0.89)	0.66 (0.97)	0.07 (0.14)	0.11 (0.15)
Female rater × female instructor	0.22 (1.18)	−0.02 (1.29)	0.04 (0.19)	0.00 (0.21)
Controls	No	Yes	No	Yes
N raters / items (raters)	457	394	2742 (457)	2364 (394)

Columns (1) and (2) report OLS regression results, robust standard errors in parentheses. Columns (3) and (4) report panel regression results using six observations per rater. Controls are age and indicator if respondent has some background/experience in economics. ** and *** indicate significance at the 5 and 1% level, respectively. Sample sizes vary across columns due to some missing values.

check where we control for whether MTurk subjects actually browsed the slides. Results replicate the effects for the academic sample and the absence of any effects in the non-academic sample (**Supplementary Material**, Part C). As a result, we can reject Hypotheses 2 and 3 for the academic sample in Study 2. For the non-academic sample, we cannot reject any of the Hypotheses 1–3.

DISCUSSION

Study 1 finds differences in the evaluation of identical teaching slides depending on the gender signaled by the instructor's name. That is, any confounding effects of the class experience that are otherwise unrelated to the teaching effectiveness, and potentially affect teaching evaluations, are excluded by design in our study. Consistent with previous studies, female instructors receive worse evaluations than male instructors when assessed by male raters. One explanation is that the evaluation process is affected by gender stereotypes: male raters may believe that female instructors perform worse in technical fields like economics (Heinz et al., 2016; Boring, 2017), and assessments are affected by such beliefs even in the absence of differences. Females hold somewhat more positive views of female instructors. These results support an interpretation of previous findings in terms of a true gender bias in teaching evaluations.

Study 2 showed that the gender bias in the assessment of mere teaching material replicates in an online experiment in a sample of older MTurk participants with a college degree. In contrast to Study 1, however, both males and females assess instructors of their own gender more favorable. Restricting the analyses to an arguably underpowered sample of current students among the MTurk participants yields results identical to Study 1, with a bias observed for male raters but not for female raters. On the other hand, those without a college degree show no gender bias at all (with substantial power to identify an

effect of the size observed in Study 1). These findings of the exploratory subgroup analysis suggest two conclusions. First, there is no wholesale gender bias of everybody simply rating work of females worse than that of males. In particular, past experiences made in university classes seems important for the bias in teaching materials to emerge. We refer to these effects as “study experience.” The study-experience effect we find may for example derive from past in-class experiences at college where staff is predominantly male. In contrast, those without college may associate educational material with educational contexts that are not dominated by males (high school, adult education).

Second, biased evaluations against female instructors in our studies only obtain for male raters. In Study 1, we find suggestive evidence that female raters give better evaluations to female instructors (mathematical sophistication), and in Study 2, more favorable evaluations by female raters for female instructors strongly emerge for those with college education. The evidence is consistent with recent results by Funk et al. (2019) who argue that female subjects may favor female instructors when the pool of instructors is male-dominated. Moreover, Rudman and Goodwin (2004) show that in-group bias may be strong in women; it may thus overcome other biases if they existed. However, it is also important to note that the male rater bias toward better evaluations for male instructors is, across all analyses in the paper, the one that consistently emerges. This is consistent with the widely observed gender effect in teaching evaluations that we aimed to shed light on.

Previous research has demonstrated that lower teaching evaluations for women do not seem to be related to aspects of teaching measurable by students' study activity or success. However, it is conceivable that certain aspects of teaching by women are in fact perceived as less pleasant, in particular by male students. For example, Arbuckle and Williams (2003) showed that aspects of voice tone may indeed be judged with a gender bias. Building on work by MacNell et al. (2015), the

current study excluded any such aspects by having people judge pure teaching material. Despite this fact and despite a very subtle gender identification on the materials, we find clear evidence that identical teaching material may be judged differently if it comes from male or female instructors. As in Mengel et al. (2019), we find that more negative assessments for females are driven by male raters in a laboratory experiment with a student sample. For an online sample of raters with a college degree we find biases toward their own gender for both male and female raters. For a broader set of non-college respondents in the online sample, no biases are observed. That is, despite the absence of any classroom experience confounds, the bias seems to be related to current study experience. We can still consider it a bias though, as any extrapolation from other courses or experiences would be unwarranted in the current settings with the evaluation of identical teaching materials.

Overall, our results suggest that gender biases may be important in teaching evaluations if they even emerge in the most reduced contexts without any personal interaction and possible softer factors entering the assessment. The results question the validity of teaching evaluations as a governance tool used in hiring and promotion decisions. The findings in Arbuckle and Williams (2003); MacNell et al. (2015), and the current paper that even supposedly objective materials may not be judged in a neutral way if gender information is available may be relevant beyond the narrow domain studied here. For example, a recent study by Brock and De Haas (2020) investigates whether loan applications are judged differently when coming from male or female business holders. Real loan applications involve personal interaction that allows loan officers to obtain soft information about the applicant, but may also lead to biases if personality aspects related to gender may inappropriately influence decisions. Eliminating the confounding channel of soft borrower information similar to the current setting, Brock and De Haas (2020) show that biases can emerge already in the assessment of gender-named loan application files. They show that experience effects and implicit biases may be of relevance for such assessment biases. Our study suggests that future research on biases in teaching evaluations may also benefit from exploring these channels.

DATA AVAILABILITY STATEMENT

All data, analyses, and other materials necessary for replication of the current studies are available online at the OSF repository <https://osf.io/x298e/>.

REFERENCES

- Arbuckle, J., and Williams, B. D. (2003). Students' perceptions of expressiveness: age and gender effects on teacher evaluations. *Sex Roles* 49, 507–516.
- Bagues, M. F., and Esteve-Volart, B. (2010). Can gender parity break the glass ceiling? Evidence from a repeated randomized experiment. *Rev. Econ. Stud.* 77, 1301–1328.

ETHICS STATEMENT

Study 1 (Laboratory)

In accordance with the Declaration of Helsinki, all participants were requested to read an online consent form and agreed with its terms (by clicking) before registering to take part in an experiment. Participants were guaranteed the anonymity of the data generated during the experiment. Subjects could only take part in the study, after they gave consent, by clicking the OK button. Thus, all subjects who participated in our Study 1 gave the written informed consent. At the University of Göttingen, there is no internal review board. All experimental protocols were approved through the experimental laboratory at the University of Göttingen (GLOBE Lab).

Study 2 (MTurk)

In accordance with the Declaration of Helsinki, all participants were requested to read an online consent form and agreed with its terms (by clicking) before registering to take part in an experiment. At the University of Göttingen, there is no internal review board. All experimental protocols were approved through the experimental laboratory at the University of Göttingen (GLOBE Lab).

AUTHOR CONTRIBUTIONS

The authors contributed equally to the research. AÖ, HR, and ST designed Study 1 and wrote the manuscript. AÖ, HR, ST, and CK-K designed Study 2. AÖ and HR conducted the experiment in Study 1. CK-K conducted the experiment in Study 2. AÖ and CK-K prepared the data. AÖ and ST analyzed the data.

FUNDING

We acknowledge financial support for open access publication by the Baden-Württemberg Ministry of Science, Research and the Arts and by Ruprecht-Karls-Universität Heidelberg.

SUPPLEMENTARY MATERIAL

The Supplementary Material for this article can be found online at: <https://www.frontiersin.org/articles/10.3389/fpsyg.2020.01074/full#supplementary-material>

- Biernat, M., Tocci, M. J., and Williams, J. C. (2012). The language of performance evaluations: gender-based shifts in content and consistency of judgment. *Soc. Psychol. Pers. Sci.* 3, 186–192.
- Blau, F. D., and Kahn, L. M. (1994). Rising wage inequality and the US gender gap. *Am. Econ. Rev.* 84, 23–28.
- Blau, F. D., and Kahn, L. M. (2017). The gender wage gap: extent, trends, and explanations. *J. Econ. Literat.* 55, 789–865.

- Boring, A. (2017). Gender biases in student evaluations of teaching. *J. Public Econ.* 145, 27–41.
- Bornmann, L., Mutz, R., and Daniel, H.-D. (2007). Gender differences in grant peer review: a meta-analysis. *J. Informetr.* 1, 226–238.
- Brock, J. M., and De Haas, R. (2020). Discriminatory lending: evidence from bankers in the lab. *EBDR Res. Rep.*
- Budden, A. E., Tregenza, T., Aarssen, L. W., Koricheva, J., Leimu, R., and Lortie, C. J. (2008). Double-blind review favours increased representation of female authors. *Trends Ecol. Evol.* 23, 4–6.
- Cabeza, M. F., Johnson, J. B., and Tyner, L. J. (2011). Glass ceiling and maternity leave as important contributors to the gender wage gap. *S. J. Bus. Ethics* 3, 73–85.
- Ceci, S. J., and Williams, W. M. (2011). Understanding current causes of women's underrepresentation in science. *Proc. Natl. Acad. Sci. U.S.A.* 108, 3157–3162.
- Chen, D. L., Schonger, M., and Wickens, C. (2016). oTree—An open-source platform for laboratory, online, and field experiments. *J. Behav. Exp. Finan.* 9, 88–97.
- Christofides, L. N., Polycarpou, A., and Vrachimis, K. (2013). Gender wage gaps, 'sticky floors' and 'glass ceilings' in Europe. *Lab. Econ.* 21, 86–102.
- Croson, R., and Gneezy, U. (2009). Gender differences in preferences. *J. Econ. Literat.* 47, 448–474.
- Funk, P., Iriberry, N., and Savio, G. (2019). *Does Scarcity of Female Instructors Create Demand for Diversity among Students? Evidence from Observational and Experimental Data*. Lugano: Università della Svizzera italiana.
- Goldin, C., and Rouse, C. (2000). Orchestrating impartiality: the impact of "blind" auditions on female musicians. *Am. Econ. Rev.* 90, 715–741.
- Heinz, M., Normann, H.-T., and Rau, H. A. (2016). How competitiveness may cause a gender wage gap: experimental evidence. *Eur. Econ. Rev.* 90, 336–349.
- Krawczyk, M., and Smyk, M. (2016). Author's gender affects rating of academic articles: evidence from an incentivized, deception-free laboratory experiment. *Eur. Econ. Rev.* 90, 326–335.
- Krupka, E. L., and Weber, R. (2013). Identifying social norms using coordination games: why does dictator game sharing vary? *J. Eur. Econ. Assoc.* 11, 495–524.
- MacNell, L., Driscoll, A., and Hunt, A. N. (2015). What's in a name: exposing gender bias in student ratings of teaching. *Innovat. High. Educ.* 40, 291–303.
- Mengel, F., Sauermann, J., and Zölitz, U. (2019). Gender bias in teaching evaluations. *J. Eur. Econ. Assoc.* 17, 535–566.
- Niederle, M., and Vesterlund, L. (2007). Do women shy away from competition? Do men compete too much? *Q. J. Econ.* 122, 1067–1101.
- Petrongolo, B. (2019). The gender gap in employment and wages. *Nat. Hum. Behav.* 3, 316–318.
- Rudman, L. A., and Goodwin, S. A. (2004). Gender differences in automatic in-group bias: why do women like women more than men like men? *J. Pers. Soc. Psychol.* 87:494.
- Trautmann, S. T., and Van de Kuilen, G. (2015). Belief elicitation: am horse race among truth serums. *Econ. J.* 125, 2116–2135.
- Wells, G. L., and Windschitl, P. D. (1999). Stimulus sampling and social psychological experimentation. *Pers. Soc. Psychol. Bull.* 25, 1115–1125.
- Zizzo, D. (2010). Experimenter demand effects in economic experiments. *Exp. Econ.* 13, 75–98.

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright © 2020 Özgümüş, Rau, Trautmann and König-Kersting. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.



Spanish Women Making Risky Decisions in the Social Domain: The Mediating Role of Femininity and Fear of Negative Evaluation

Laura Villanueva-Moya* and Francisca Expósito

Department of Social Psychology, Mind, Brain and Behavioral Research Center (CIMCYC), Faculty of Psychology, University of Granada, Granada, Spain

OPEN ACCESS

Edited by:

William Outhwaite,
Newcastle University, United Kingdom

Reviewed by:

Marco Salvati,
Sapienza University of Rome, Italy
Esther Lopez-Zafra,
University of Jaén, Spain

*Correspondence:

Laura Villanueva-Moya
lauravm@ugr.es

Specialty section:

This article was submitted to
Gender, Sex and Sexualities,
a section of the journal
Frontiers in Psychology

Received: 13 May 2020

Accepted: 27 November 2020

Published: 18 December 2020

Citation:

Villanueva-Moya L and
Expósito F (2020) Spanish Women
Making Risky Decisions in the Social
Domain: The Mediating Role of
Femininity and Fear of
Negative Evaluation.
Front. Psychol. 11:561715.
doi: 10.3389/fpsyg.2020.561715

Authors have empirically evidenced that cultural stereotypes influence gender-typed behavior. With the present work, we have added to this literature by demonstrating that gender roles can explain sex differences in risk-taking, a stereotypically masculine domain. Our aim was to replicate previous findings and to analyze what variables affect women making risky decisions in the social domain. A sample composed of 417 Spanish participants (281 women and 136 men), between 17 and 30 years old ($M = 22.34$, $SD = 3.01$), answered a set of self-report measures referring to femininity, fear of negative evaluation, and social risk-taking. According to the main results, sex indirectly linked to risk-taking in the social domain, through femininity and fear of negative evaluation. Specifically, women (vs. men) self-reported higher feminine traits, which were associated with increased fear of negative evaluation, which in turn was associated with less risky decisions in the social domain. Thus, we have showed the relationship between gender roles and women's behaviors in a stereotypically masculine domain (risk-taking). Our findings highlight the necessity of considering a gender-based perspective in the field of risk-taking, showing that not all women make more risky decisions in the social domain.

Keywords: risk-taking, femininity, fear of negative evaluation, gender roles, sex differences, gender stereotypes

INTRODUCTION

Notwithstanding an increase in women and men occupying nontraditional domains, gender stereotypes are still present in society and influence women's and men's behaviors (Eagly and Wood, 2016). Gender stereotypes have sustained gender inequality (Ellemers, 2018), limiting women to stereotypically feminine activities (i.e., the private sphere; Eagly and Wood, 2016) and discriminating against them if they do not carry out these types of activities (Rudman et al., 2012). In this respect, empirical evidence has shown sex differences in decision-making (a stereotypically masculine domain; Morgenroth et al., 2018), namely that women make fewer risky decisions than men (e.g., Figner and Weber, 2011; Van den Bos et al., 2013). Nevertheless, when some real-life domains of risk-taking are taken into account, researchers have demonstrated that men make more risky decisions in all domains except the social domain, where women make more risky decisions (e.g., Blais and Weber, 2006; Lozano et al., 2017; Morgenroth et al., 2018).

Recent studies have tried to explain these differences, demonstrating that they should be interpreted with caution. For example, Rolison and Shenton (2020) indicated that these differences could be due to item bias. In this study, from a gender-based perspective, we proposed that these differences could be due to the influence of other variables, such as femininity and fear of negative evaluation. In this sense, previous research has shown traditional gender roles (femininity) increase the preference for stereotypically feminine domains (e.g., Dinella et al., 2014). Furthermore, femininity seems to restrict social behavior; Cella et al. (2013) found that femininity increased social insecurity. Hence, persons who identify themselves as more feminine – usually women – seem to be concerned about others' expectations of them, given that they have to behave in a manner consistent with their gender role (Eagly, 1987). Consequently, their behavior seems to tend to avoid the prospect of being evaluated negatively, decreasing their participation in stereotypically masculine domains, such as sports (e.g., Yi-Hsiu and Chen-Yueh, 2013). In this respect, the sensation people experience at the prospect of being evaluated negatively by others has been specified as fear of negative evaluation (FNE; Leary, 1983). In this study, we proposed broadening the research on women, gender stereotypes, and FNE in another stereotypically masculine domain: risk-taking. We have reported a gender-based perspective on how, through femininity and fear of negative evaluation, women make decisions in the stereotypically masculine domain of risk-taking.

The Importance of Gender Stereotypes to Women

By social role theory (Eagly and Steffen, 1984; Eagly, 1987; Eagly et al., 2000), people learn that they have to behave consistently with their gender role, given that women and men are socialized into different values starting from their childhood. A prescription exists for what women and men are expected to do: Women have to behave in accordance with a communal dimension – maintenance of relationships – and men in accordance with an agency one – goal achievement and task-functioning. Despite an increase in women and men in nontraditional domains in recent years, traditional beliefs and lifestyles have not changed. Haines et al. (2016) compared the 1980s to the 2nd decade of the 21st century and did not find a decline in the traditional gender beliefs about women and men in several domains (traits, physical characteristics, occupations, gender roles, etc.). Those who hold such traditional beliefs continue to associate women with being primary caregivers and men with being primary family providers (Eagly and Steffen, 1984; Eagly and Wood, 2016). In this way, gender roles maintain the hegemony of patriarchy and justify the subordination of women (Ellemers, 2018), obstructing their personal and professional development (Craig and Mullan, 2011; Llinares-Insa et al., 2018). Hence, women are the main group affected by this patriarchal system in which gender roles limit their behavior and therefore interfere with their full progress and well-being.

Literature has respectively equated communal and agency dimensions with femininity (i.e., friendliness, concern for

others, and expressiveness) and masculinity (i.e., mastery, independence, and competence; Bem, 1974; Abele and Wojciszke, 2014) – both gender stereotype traits. Men and women thus integrate masculinity or femininity self-concepts into themselves and self-regulate their behaviors according to them. In this regard, empirical evidence has demonstrated that women score significantly higher on self-report scales of feminine traits than men, and men higher on masculine traits than women (Kamas and Preston, 2012; López-Zafra et al., 2012; Mueller and Dato-On, 2013). Accordingly and in line with social role theory (Eagly, 1987), sex predicts feminine and masculine gender roles (e.g., Powell and Greenhaus, 2010; Ward and King, 2018; Howard and Fox, 2020); that is, persons who identify themselves as more feminine – usually women – may be expected to engage in activities related to housework, childcare, or social relationships. By contrast, persons who identify themselves as more masculine – usually men – may be expected to perform behaviors related to physically demanding or decision-making tasks (e.g., Cerrato and Cifre, 2018). Given this difference, women were our research object, and owing to gender roles affecting their personal and professional development, we used the variable of femininity as a trait that reflects women's gender roles and so could help explain how gender roles affect their behavior in stereotypically masculine domains.

A large body of research has shown that femininity entails what women self-perceive as less competence, perpetuating gender roles in the private and public spheres (i.e., stereotypically feminine domains). Specifically, femininity predicts a family role (Powell and Greenhaus, 2010), increased interest in feminine careers or traditionally feminine jobs (Weisgram et al., 2011; Dinella et al., 2014), and decreased entrepreneurial self-efficacy (Mueller and Dato-On, 2013). At the same time, femininity affects well-being by increasing body dissatisfaction, body image concern, and depersonalization (Cella et al., 2013) as well as levels of spillover (Powell and Greenhaus, 2010). Indeed, it can affect types of strategies for managing social conflicts and increase sensibility to the needs of others, rather than decisiveness or selfishness (Keener and Strough, 2017). In line with the prior literature, we considered femininity as a possible predictor of sex differences in stereotypically masculine domains (e.g., risk-taking).

Femininity and Fear of Negative Evaluation

Eagly and Wood (2016) argued that one of the main reasons people continue to conform to their gender roles is the negative social evaluation they could receive if they were to disregard them. Indeed, if women violate gender roles, they are perceived more negatively than a stereotypical male or female (e.g., Sutherland et al., 2015). Consequently, they fall victim to social and economic penalties (what is known as *backlash*; e.g., Rudman et al., 2012), such as prejudice and discrimination (e.g., Glick and Fiske, 1997; Rudman and Phelan, 2008), and even they can be perceived as lesbian regardless of sexual orientation (e.g., Salvati et al., 2019). In this sense, we propose that women who self-report greater feminine traits could experience more FNE, for if they were to deviate from their

femininity, they could experience negative sanctions. Specifically, it has been found that people with higher FNE tend to behave in a manner to avoid the prospect of being evaluated negatively, to be more concerned about making good impressions, and to seek social approval (Watson and Friend, 1969; Leary, 1983). This sensation (FNE) could be experienced by feminine women to a greater extent and could, therefore, be a variable limiting their behavior. In this sense, Cella et al. (2013) showed that femininity restricts social behavior, increasing avoidance or social insecurity.

Most studies on women, gender stereotypes, and FNE have been in the stereotypically masculine domain of sports (e.g., Yi-Hsiu and Chen-Yueh, 2013; for a review, see Chalabaev et al., 2013). It has generally been found that women experience higher FNE than men (e.g., Piqueras et al., 2012; Biolcati, 2017), decreasing or avoiding participation in masculine sports (e.g., Yi-Hsiu and Chen-Yueh, 2013). These findings could owe to women's concerns about not achieving social standards of femininity (Leary, 1992), given that if they were involved in stereotypically masculine domains (i.e., sports, work, decision-making...), their participation could be perceived as a deficiency in femininity, and they could receive negative sanctions. Similarly, in other stereotypically masculine domains, such as negotiations, Amanatullah and Morris (2010) demonstrated that fear of social costs affects women's strategic responses, representing a form of backlash.

Femininity, Fear of Negative Evaluation, and Risk-Taking

With this frame of reference, we propose broadening the research on women, gender stereotypes, and FNE in another stereotypically masculine domain: decision-making. Due to gender roles, women continue to take primary responsibility for family and childcare tasks, whereas men assume decision-making tasks (Cerrato and Cifre, 2018). In fact, empirical evidence has shown sex differences in decision-making, namely that women make fewer risky decisions than men do (e.g., Figner and Weber, 2011; for a review, see Van den Bos et al., 2013). Researchers have explained these differences by anxiety (e.g., Panno et al., 2018), stress (e.g., Santos-Ruiz et al., 2012), and even the type of information processing (e.g., Byrne and Worthy, 2016).

Specifically, the literature has also found sex differences in some real-life domains of risk-taking. These differences have appeared on the Domain-Specific Risk-Taking Scale (DOSPERT; Blais and Weber, 2006), a measure and one of the most effective clinical instruments for assessing the tendency to make risky decisions across real-life domains (ethical, health, recreational, social, and financial; Harrison et al., 2005). Researchers have demonstrated that sex predicts risk-taking (e.g., Gowen et al., 2019). Specifically, men make more risky decisions in all domains except the social domain in which women make more risky decisions (e.g., Blais and Weber, 2006; Lozano et al., 2017; Morgenroth et al., 2018). Recent studies have tried to explain these sex differences on the DOSPERT scale, demonstrating that they must be interpreted

with caution. On one hand, Rolison and Shenton (2020) through two studies argued that these differences could owe to the way the domains are represented. In their first study, they asked participants to report some activities in each of the domains – that is, participants had to think about and write activities, instead of answering to the original items. In their second study, they asked participants to indicate the likelihood that they would engage in each of the activities that other participants described in the first study. Their findings indicated that in the social domain, women perceived greater risk than men; in other words, they had a lower tolerance for risk. On the other hand, Zhang et al. (2019) pointed out that risk-taking in the social domain functions differently across groups. Furthermore, other authors have argued that there is a gender confirmation bias in risk-taking due to its traditional association with stereotypically masculine activity (Morgenroth et al., 2018), which could affect women's behavior. Therefore, sex differences in the social domain (DOSPERT) should be exhaustively analyzed, given that there is controversy around this finding. Further, not all women could make more risky decisions in the social domain.

The Current Research

The present study aims to replicate previous findings and broaden the research on women, gender stereotypes, and risk-taking. The literature has indicated that women rate themselves more likely to make risky decisions in the social domain (e.g., Figner and Weber, 2011). Nevertheless, there is controversy around this finding (Zhang et al., 2019), which may cause confusion because people who identify themselves as more feminine – traditionally women – are conditioned to be more cautious, whereas those who identify themselves as more masculine – traditionally men – are conditioned to be riskier (Carver et al., 2013). In this sense, the social domain (e.g., “speaking your mind about an unpopular issue in a meeting at work” or “moving to a city far away from your extended family”) is a context in which women could experience more FNE if they were to make risky decisions, given that they would deviate from their traditional role (Rudman et al., 2012). Moreover, researchers have demonstrated that women make decisions taking into account all information in an environment (e.g., social sanctions), even when this information could lead them to make bad decisions (e.g., Byrne and Worthy, 2016; Meyers-Levy, 1989). Hence, women who report greater feminine traits should experience higher FNE and thus make fewer risky decisions, because if they were to be involved in stereotypically masculine domains, they could be perceived as having a deficiency in femininity and could receive negative sanctions.

On the basis of prior studies' findings, we proposed that this gender confirmation bias in risk-taking (Morgenroth et al., 2018) could be explained through gender roles (femininity) and FNE. In this research, we replicated previous findings as well as tried to increase the knowledge on the implications of femininity for FNE in risk-taking in the social domain. The general purpose of this work is to analyze how women

make risky decisions in the social domain through femininity and FNE. Specifically, we predicted that women in comparison to men would self-report greater feminine traits (Hypothesis 1a), would experience higher FNE (Hypothesis 1b), and would take greater risks in the social domain (Hypothesis 1c). Concerning correlation between variables, we hypothesized that femininity in women would be associated positively with FNE (vs. men; Hypothesis 2a) and negatively with risk-taking in the social domain (vs. men; Hypothesis 2b). We also expected that FNE would be negatively associated with risk-taking in the social domain in women (vs. men; Hypothesis 3). Finally, through a serial mediation model, we predicted that women (vs. men) would be associated with more femininity, which we expected to be associated with more FNE, which would in turn be associated with less risk-taking in the social domain (Hypothesis 4).

MATERIALS AND METHODS

Participants

We collected data from 502 students at the University of Granada in southern Spain. The inclusion criterion was being a student of the University of Granada. Among the participants who accessed the survey, 85 were excluded (14 did not complete it and 71 failed to pass an attention check item), leaving data from 417 participants (281 females and 136 males). Participants ranged in age from 17 to 30 ($M = 22.34$, $SD = 3.01$). A *a priori* power analysis of G*Power (Faul et al., 2007, 2009) revealed that we had to recruit at least 120 participants to conduct a correlation statistical test with a medium effect size of $d = 0.25$ ($1 - \beta = 80\%$; $\alpha = 0.05$).

Procedure

We invited participants to take part in the study through the university mailing list for students. In the email, participants received a questionnaire link and instructions to take part by an online platform. We obtained informed consent from participants before they began the study, telling them about the anonymity and confidentiality of their responses and allowing them to agree or decline to answer the survey ("After being informed of the above, I agree to participate in the study."). If participants agreed, they could begin to answer the measures. Informed consent was obtained from all individual participants included in the study. The study is part of a broad project approved by the Ethics Committee of the University of Granada.

Measures

Femininity

For femininity, we used the Bem Sex Role Inventory (Bem, 1974), adapted to the Spanish population by López-Sáez and Morales (1995, see also López-Sáez et al., 2008). The inventory assesses the extent to which people have incorporated feminine or masculine traits into their self-concepts. In particular, we administered the femininity subscale (e.g., "Sensitive to needs of others," "childlike," and "compassionate"). Participants were asked

to rate the extent to which items described them (1 = *never or almost never true*, 7 = *almost always true*). In the present study, the internal consistency was 0.73, similar to administrations of the measure in other Spanish samples ($\alpha = 0.72$ – 0.76 , López-Sáez et al., 2008; López-Zafra et al., 2012).

Fear of Negative Evaluation

For FNE, we used the Brief Fear of Negative Evaluation Scale (Leary, 1983; Spanish adaptation of Gallego et al., 2007), which consists of 12 items that identify the sensation people experience at the prospect of being evaluated negatively by others. Examples of items include "I am afraid that others will not approve of me" and "I often worry that I will say or do the wrong thing" (1 = *not at all characteristic of me*, 5 = *extremely characteristic of me*). The Spanish adaptation showed a Cronbach's α of 0.90. In this data set, averages scores showed an internal consistency of 0.87, similar to other Spanish samples ($\alpha = 0.91$, Piqueras et al., 2012).

Social Risk-Taking

We used the DOSPERT scale (Blais and Weber, 2006) to evaluate the likelihood of people making risky decisions within different domains of life (ethical, financial, health, recreational, and social). Lozano et al. (2017) adapted the scale to the Spanish population. We specifically administered the social subscale, which comprises six items (e.g., "Moving to a city far away from your extended family"; 1 = *extremely unlikely*, 7 = *extremely likely*). In the original version of the scale, the Cronbach's α coefficient ranged between 0.57 and 0.79. The Spanish adaptation of the DOSPERT obtained an internal consistency of 0.64 (Lozano et al., 2017). With this sample, the subscale showed a Cronbach's α of 0.65.

Attention Check

We included several extra attention check items among the scales to identify subjects not paying attention to the task (e.g., "If you are reading this question, answer with 3"; Lozano et al., 2017).

Statistical Analysis Strategy

Before performing the main analysis, we checked data for testing assumptions of normality and multicollinearity. We then carried out the main analyses. To corroborate if the means of women and men were significantly different from each other in the study variables, we performed an independent samples *t*-test analysis using sex as the independent variable, and femininity, FNE, and social risk-taking as dependent variables (see Table 1). Additionally, to determine the association between the study variables, we carried out a bivariate correlation analysis as a function of sex (see Table 2). Lastly, we followed Hayes's recommendations (2017) for testing indirect effects with serial mediators. In particular, we conducted analysis to determine whether femininity and FNE mediated the relationship between sex and social risk-taking (see Figure 1; Table 3). In particular, we used model 6 of the PROCESS macro for SPSS version 3.4.1. We performed all analyses using version 22.0 of IBM SPSS Statistics for Windows.

TABLE 1 | Sex differences in femininity, fear of negative evaluation, and social risk-taking.

	Men <i>M</i> (<i>SD</i>)	Women <i>M</i> (<i>SD</i>)	<i>t</i>	<i>p</i>	95% CI	Cohen's <i>d</i>
1. Femininity	4.57 (0.82)	4.88 (0.83)	−3.65	<0.001	[−0.486, −0.146]	0.38
2. FNE	2.99 (0.78)	3.02 (0.79)	−0.24	0.815	[−0.180, 0.142]	0.03
3. Social risk-taking	5.29 (0.88)	5.63 (0.79)	−3.99	<0.001	[−0.511, −0.174]	0.41

FNE, fear of negative evaluation; *M*, mean; *SD*, standard deviation; CI, confidence interval.

TABLE 2 | Correlations and descriptive statistics across all measures.

Variables	1.	2.	3.
Femininity	-	0.20**	−0.13*
Fear of negative evaluation	−0.03	-	−0.32**
Social risk-taking	0.14	−0.15	-
Range	(1–7)	(1–5)	(1–7)
Observed range	(2–6.56)	(1.08–5)	(2.67–7)
Mean (<i>SD</i>)	4.78 (0.84)	3.01 (0.78)	5.52 (0.84)
Skewness/Kurtosis			
Women	−0.324/0.011	0.111/−0.767	−0.499/−0.287
Men	−0.194/−0.345	0.166/−0.581	−0.379/0.413

Correlations for women are above the diagonal. Correlations for men are below the diagonal. *SD*, standard deviation. * $p < 0.05$; ** $p < 0.01$.

RESULTS

Preliminary Analysis

Skewness and kurtosis values were reported in **Table 2**. According to Blanca et al. (2013) the values were <1.0 and thus the assumption of normality was fulfilled. As can be observed in **Table 2**, correlations ranged from $r = |0.03|$ to $r = |0.32|$, and thus they were not >0.70–0.80, indicating that there was no multicollinearity (Slinker and Glantz, 1985).

Sex Differences

We conducted an independent samples *t*-test analysis to test whether women compared to men would self-report greater feminine traits (Hypothesis 1a), experience higher FNE (Hypothesis 1b), or score higher on risk-taking in the social domain (Hypothesis 1c). We used sex (0 = male; 1 = female) as the independent variable and femininity, FNE, and social risk-taking as dependent variables. As can be observed in **Table 1**, women self-reported greater feminine traits (Hypothesis 1a) and social risk-taking than men did (Hypothesis 1c). Conversely, with respect to FNE, the results did not show statistically significant differences based on participants' sex and thus did not support Hypothesis 1b.

Correlations Across All Measures

To check associations between study variables, we performed a bivariate correlation analysis as a function of sex. In **Table 2**, correlations for women are shown above the diagonal, whereas those for men are shown below the diagonal. The results revealed that in women (vs. men), femininity was related positively to FNE ($r = 0.20$, $p < 0.01$; Hypothesis 2a) and negatively to social risk-taking ($r = -0.13$, $p < 0.05$; Hypothesis 2b).

Further, FNE in women was negatively associated with social risk-taking ($r = -0.32$, $p < 0.01$; Hypothesis 3). In men, there were no significant correlations between variables. We used Fisher's *r*-to-*z* transformation for independent samples to determine whether there was a significant difference between correlation coefficients (Eid et al., 2011). The results showed that the differences between femininity and FNE ($z = -2.22$, $p = 0.013$), femininity and social risk ($z = 2.51$, $p = 0.006$), and FNE and social risk-taking ($z = 1.73$, $p = 0.042$) were statistically significant. Therefore, these findings support Hypotheses 2a, b, and 3, in that women who self-reported greater feminine traits experienced more FNE and make fewer risky decisions in the social domain.

Indirect Effects of Sex on Social Risk-Taking Based on Femininity and Fear of Negative Evaluation

To test whether femininity and FNE mediated the association between sex and social risk-taking (see model 1, **Figure 1**), we followed the recommendations of Hayes (2017) for testing indirect effects with serial mediators. It is necessary to consider that a significant total effect is not required to obtain a significant indirect effect (Hayes, 2009). According to Hayes (2017), an indirect effect can be interpreted as statistically significant if zero falls outside of a confidence interval. To check our prediction, we used model 6 of the PROCESS macro for SPSS version 3.4.1, with 10,000 bias-corrected bootstrap samples and 95% confidence intervals. We entered sex (0 = male, 1 = female) as the predictor (X), femininity (M1) and FNE (M2) as the mediating variables, and risk-taking in the social domain as the criterion variable (Y). The results showed that the indirect effect was significant, given that the 95% confidence interval around the indirect effect did not contain zero [$B = -0.010$, $SE = 0.006$, 95% CI (−0.023, −0.002)], supporting Hypothesis 4. That is to say, sex (0 = male, 1 = female) was indirectly linked to risk-taking in the social domain, through femininity and FNE. In particular, women (vs. men) self-reported greater feminine traits, which were associated with higher FNE, which in turn was related to making less risky decisions in the social domain (see **Figure 1**).

It is worthwhile to point out that the pathways through each of the mediators notably were not significant, given that the 95% confidence interval around the indirect effect contained zero in both cases: (a) the indirect effect of sex on social risk-taking through femininity [$B = -0.001$, $SE = 0.017$, 95% CI (−0.033, 0.035)] and (b) the indirect effect of sex on social risk-taking through FNE [$B = 0.005$, $SE = 0.023$, 95% CI (−0.042, 0.049)]. Therefore, femininity

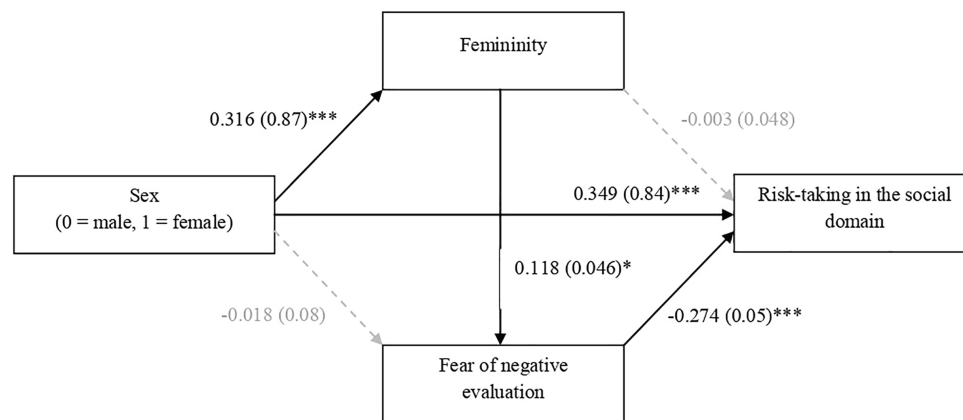


FIGURE 1 | Serial mediation model depicting indirect effect sex (0 = male, 1 = female) on social risk-taking through femininity and fear of negative evaluation. Unstandardized beta coefficients reported, with standard errors within parentheses. * $p < 0.05$, *** $p < 0.001$.

TABLE 3 | Serial mediation analysis of sex, femininity, and fear of negative evaluation on social risk-taking.

Antecedent	Femininity		FNE ^b		Social risk-taking	
	Coeff.	Symmetric BCI ^c	Coeff.	Symmetric BCI ^c	Coeff.	Symmetric BCI ^c
Sex ^a	0.316***	[0.146, 0.486]	-0.018	[-0.181, 0.145]	0.349***	[0.183, 0.515]
Femininity			0.118*	[0.028, 0.209]	-0.003	[-0.096, 0.090]
FNE ^b					-0.274***	[-0.373, -0.176]
Constant	4.566***	[4.427, 4.706]	2.458***	[2.023, 2.893]	6.122***	[5.617, 6.628]
	$R^2 = 0.031$		$R^2 = 0.016$		$R^2 = 0.103$	
	$F(1, 415) = 13.32, p < 0.001$		$F(2, 414) = 3.31, p = 0.038$		$F(3, 413) = 15.81, p < 0.001$	

^a0, male; 1, female.

^bFNE, fear of negative evaluation.

^cSymmetric BCI, symmetric bootstrapping confidence interval.

* $p < 0.05$; *** $p < 0.001$.

and FNE are essential for these pathways to unfold, and the association between them is relevant in this process. Furthermore, as can be observed in **Table 3**, it should be noted that both mediators accounted for 10% of the variance in the inclination to social risk-taking, instead of 3% or 1% if they were considered independently.

DISCUSSION

In the present research, we aimed to analyze what variables affect women making risky decisions in the social domain. The findings provide an explication from a gender-based perspective of why there are sex differences in social risk-taking, a controversial question that should be analyzed from this perspective (Zhang et al., 2019). The results show that gender roles (femininity) and FNE – psychosocial variables – are plausible explanatory factors in the relation between women and higher risk-taking in the social domain. Although the majority of research conducted on gender roles and the FNE phenomenon has focused on the sports domain (for a review, see Chalabaev et al., 2013), our work extends a growing

body of literature considering risky decision-making as another stereotypically masculine domain (e.g., Cerrato and Cifre, 2018; Morgenroth et al., 2018) in which these variables could determine women's behavior.

Our findings revealed that women compared to men self-reported greater feminine traits (Hypothesis 1a). This disparity is consistent with social role theory (Eagly, 1987) as well as other studies (e.g., Mueller and Dato-on, 2013), showing that in spite of an increase of women and men in nonstereotypical domains, gender inequality remains in societies (Haines et al., 2016). Indeed, women still consider themselves as primarily responsible for housework and childcare, spending more time on these tasks compared to men, who consider primarily responsible for decision-making tasks (Cerrato and Cifre, 2018). One of the main reasons women continue conforming to their gender roles (femininity) in their behavior is social sanctions that they could receive (Rudman et al., 2012; Eagly and Wood, 2016). Women evaluate themselves positively to the extent that they conform to gender roles or negatively to the extent that they deviate from them, because if they show nonstereotypical behavior, they might experience social sanctions. Indeed, empirical evidence has shown that femininity

affects social behavior, increasing avoidance or social insecurity (Cella et al., 2013). In this sense, our results align with previous studies, as femininity was positively associated with FNE (Hypothesis 2a). According to our findings, women who self-reported more feminine traits had more FNE, which could owe to the level of pressure women feel to conform to their gender roles (Dinella et al., 2014) as well as concern about not achieving social standards of femininity (Leary, 1992). For example, women who do not fulfill the role of a mother can experience fear of being evaluated by others as a “bad mother or bad woman” (Liss et al., 2013). Women are constantly evaluated by society, given that they should not disregard their traditional role (i.e., the private sphere) to maintain gender inequality situations.

By contrast, concerning FNE, the results did not show statistically significant differences based on sex, which does not support Hypothesis 2b. This result is not consistent with empirical evidence, whereby women have reported experiencing more FNE (e.g., Biolcati, 2017). Nevertheless, it should be noted that although there were no significant differences, our averages notably showed that women reported more FNE. This pattern of results could be explained by social desirability bias, which can lead women to want to appear good to others (Paulhus, 1984). Currently, women could want to be perceived as feminists given an expansion of the feminist movement in Spain, which has been encouraging women to be nontraditional. Feminist women are seen as more competent (masculinity) and less warm (femininity; Meijs et al., 2019), and so women could feel social pressure to appear more masculine and not show FNE to others.

Concerning social risk-taking, empirical evidence has found differences between the sexes: Women in other studies have made more risky decisions in this domain than men (Blais and Weber, 2006; Lozano et al., 2017; Morgenroth et al., 2018), which our study also found (Hypothesis 1c). Studies have argued that these differences should be interpreted with caution (Zhang et al., 2019), and according to gender stereotypes, given that risk-taking is traditionally associated with stereotypically masculine activity (Morgenroth et al., 2018). Nevertheless, to our knowledge, there are no studies that have tried to explain these differences through a gender-based perspective. Our findings indicate that in women, femininity and FNE are negatively associated with social risk-taking (Hypotheses 2b and 3). Despite the scarce existing literature that associates femininity or FNE with social risk-taking, these findings could be mainly explained by social role theory (Eagly, 1987) and backlash effect (Rudman et al., 2012). Traditionally, women are conditioned to be more cautious and men to be riskier (Carver et al., 2013); thus, if women are involved in a stereotypically masculine domain (risk-taking), they could be concerned about not achieving social standards of femininity (Leary, 1992). Specifically, nonstereotypical women are perceived more negatively than stereotypical men or women (Sutherland et al., 2015) and are more likely to receive social sanctions (Rudman et al., 2012). These differences could also be explained by information processing (e.g., Byrne and Worthy, 2016; Meyers-Levy, 1989): Men process information

selectively to make decisions, using specific information that benefits their decisions, whereas women use integrated information processing, taking into account all information in an environment (i.e., social sanctions), even when information can lead them to make bad decisions. The impact of sex on information processing maintains some parallelism with the effect of power (structural variable) on strategies people adopt to achieve their objectives (Schmid et al., 2015). Powerful people – usually men – focus their attention on achieving their goals, regulating their behavior toward them (e.g., Guinote, 2017). By contrast, powerless people – usually women – have a constant need for control, directing their attention to different sources of information (Keltner et al., 2003). Everything being taken into account, men’s behavior could be said to depend only on them, whereas women need the approval of others to carry out their behavior – even more so if their behavior is nonstereotypical. In line with this reasoning, given that women use all information in a context, they could consider the possibility of receiving social sanctions if they do not conform to traditional gender roles and could consequently limit their behavior to their traditional role. In this sense, FNE could be a variable that reflects the fear of social sanctions in feminine women and therefore leads them to make less risky decisions.

Extending prior research that showed that gender stereotypes and FNE can explain women’s behaviors in stereotypically masculine domains (e.g., Chalabaev et al., 2013), such as risk-taking (Morgenroth et al., 2018), we found that women in general make greater risk decisions in the social domain than men do (Hypothesis 1c), in line with previous studies (Blais and Weber, 2006; Lozano et al., 2017; Morgenroth et al., 2018). To explain these sex differences from a gender-based perspective, we tested an integrated serial mediation model that considers both femininity and FNE as explicative variables of social risk-taking. The main findings demonstrated that the association between sex and social risk-taking is mediated by femininity and FNE (Hypothesis 4). That is, women (vs. men) self-reported greater feminine traits, which were associated with higher FNE, which in turn was related to making less risky decisions in the social domain. These results expand the literature on sex differences in social risk-taking by demonstrating a gender confirmation bias in women’s answers. Although women want to make risky decisions in the social domain, such as “moving to a city far away from your extended family,” they fear being judged by others for deviating from their traditional role (femininity). Therefore, until gender roles (femininity) weaken, beliefs about what women should do will not disappear, and neither, therefore, will the negative sanctions women receive if they deviate from those roles. Hence, this work expands evidence on risk-taking in women through social role theory (Eagly, 1987), confirming that gender roles can limit women to stereotypically feminine activities (i.e., in the private sphere). In sum, not all women make more risky decisions in the social domain but those who do not have gender roles more internalized.

Limitations and Directions for Future Research

Even though the present work contributes to a better understanding of risk-taking by women in the social domain – measured through the DOSPERT scale – it has some limitations that need to be reported. Despite our sample being large, it cannot be regarded as representative of all women, given that the participants were undergraduates. To improve the generalizability of the research results, researchers will need to complete studies based on the general population. Furthermore, participants were not asked to provide their sexual orientation. We recommend future researchers to consider sexual orientation as a control variable, given that previous research has related it with femininity (e.g., Salvati et al., 2019). It would be interesting for future studies to analyze how women self-report feminine traits as a function of sexual orientation and the relationship between those traits and behavior in stereotypically masculine domains. Lastly, the amount of unexplained variance in social risk-taking may suggest that it depends on other variables as well. We recommend future researchers consider including other gender variables, such as sexism attitudes, that are associated with highly traditional roles (e.g., Becker and Wagner, 2009) and could decrease the likelihood to engage in social risk-taking. Likewise, feminist identity could be another explanatory variable for social risk-taking in women. Indeed, feminist women are seen as more competent (masculine) and less warm (feminine; Meijs et al., 2019), which could be associated with less FNE and more risky decisions in the social domain. Feminist women want to confront traditional roles (Weis et al., 2018) and so should not experience fear of social sanctions. Thus, from a gender-based perspective, feminist identity could be a valuable topic in future research on social risk-taking.

Conclusion

Empirical evidence and theories have demonstrated that cultural stereotypes influence gender-typed behavior. The present work contributes to improvement knowledge of the stereotypes and risk-taking fields, demonstrating that gender roles could explain sex differences in risk-taking, a stereotypically masculine domain. The results confirm that women make more risky decisions in the social domain than men, but they also add a plausible explanation for this sex-based relation. This study provides evidence that women (vs. men) identify themselves as more feminine, which is associated with higher FNE and in turn with making less risky decisions in the social domain. Thus, it seems that those women who have gender roles

more internalized make less risky decisions in the social domain. Findings underscore the importance of femininity and FNE to social risk-taking among women. These psychological variables lead to maintaining gender inequality in society – as can be observed in our findings – which decreases the likelihood of women behaving in stereotypically masculine domains.

Furthermore, we agree with previous studies, which indicated that DOSPERT's sex differences should be interpreted with caution because they could be biased due to gender stereotypes. In this sense, through a gender-based perspective, we have added a plausible explication of these differences through femininity and FNE.

DATA AVAILABILITY STATEMENT

The raw data supporting the conclusions of this article will be made available by the authors on request to the corresponding author, without undue reservation.

ETHICS STATEMENT

The study is part of a broad project approved by the Ethics Committee of the University of Granada. All procedures performed in study were in accordance with the ethical standards of the University of Granada and with the 1964 Helsinki declaration. Participants provided informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

LV-M and FE designed the study and drafted the content of the paper. LV-M collected the data, analyzed and interpreted them. Both the authors contributed to manuscript revision, read, and approved the submitted version.

FUNDING

This research was financially supported by the Spanish Ministry of Economy, Industry and Competitiveness for the project “New Forms of Gender Violence: Risk and Protector Factors for Psychological Well-Being” [PSI-2017-84703-R (MINECO/AEI/FEDER, UE)].

REFERENCES

- Abele, A. E., and Wojciszke, B. (2014). Communal and agentic content in social cognition: a dual perspective model. *Adv. Exp. Soc. Psychol.* 46, 195–255. doi: 10.1016/B978-0-12-800284-1.00004-7
- Amanatullah, E. T., and Morris, M. W. (2010). Negotiating gender roles: gender differences in assertive negotiating are mediated by women's fear of backlash and attenuated when negotiating on behalf of other. *J. Pers. Soc. Psychol.* 98, 256–267. doi: 10.1037/a0017094
- Becker, J. C., and Wagner, U. (2009). Doing gender differently-The interplay of strength of gender identification and content of gender identity in predicting women's endorsement of sexist beliefs. *Eur. J. Soc. Psychol.* 39, 487–508. doi: 10.1002/ejsp.551
- Bem, S. L. (1974). The measurement of psychological androgyny. *J. Consult. Clin. Psychol.* 42, 155–162. doi: 10.1037/h0036215
- Biolcati, R. (2017). The role of self-esteem and fear of negative evaluation in compulsive buying. *Front. Psych.* 8:74. doi: 10.3389/fpsy.2017.00074

- Blais, A. R., and Weber, E. U. (2006). A domain-specific risk-taking (DOSPRT) scale for adult populations. *Judgm. Decis. Mak.* 1, 33–47. doi: 10.1037/t13084-000
- Blanca, M. J., Arnau, J., López-Montiel, D., Bono, R., and Bendayan, R. (2013). Skewness and kurtosis in real data samples. *Methodology* 9, 78–84. doi: 10.1027/1614-2241/a000057
- Byrne, K. A., and Worthy, D. A. (2016). Toward a mechanistic account of gender differences in reward-based decision-making. *J. Neurosci. Psychol. Econ.* 9, 157–168. doi: 10.1037/npe0000059
- Carver, L. F., Vafaei, A., Guerra, R., Freire, A., and Phillips, S. P. (2013). Gender differences: examination of the 12-item Bem Sex Role Inventory (BSRI-12) in an older Brazilian population. *PLoS One* 8:e76356. doi: 10.1371/journal.pone.0076356
- Cella, S., Iannaccone, M., and Cotrufo, P. (2013). Influence of gender role orientation (masculinity versus femininity) on body satisfaction and eating attitudes in homosexuals, heterosexuals and transsexuals. *Eat. Weight Disord.* 18, 115–124. doi: 10.1007/s40519-013-0017-z
- Cerrato, J., and Cifre, E. (2018). Gender inequality in household chores and work-family conflict. *Front. Psychol.* 9:1330. doi: 10.3389/fpsyg.2018.01330
- Chalabaev, A., Sarrazin, P., Fontayne, P., Boiché, J., and Clément-Guillotin, C. (2013). The influence of sex stereotypes and gender roles on participation and performance in sport and exercise: review and future directions. *Psychol. Sport Exerc.* 14, 136–144. doi: 10.1016/j.psychsport.2012.10.005
- Craig, L., and Mullan, K. (2011). How mother and fathers share childcare: a cross-national time-use comparison. *Am. Sociol. Rev.* 76, 834–886. doi: 10.1177/0003122411427673
- Dinella, L. M., Fulcher, M., and Weisgram, E. S. (2014). Sex-typed personality traits and gender identity as predictors of young adults' career interests. *Arch. Sex. Behav.* 43, 493–504. doi: 10.1007/s10508-013-0234-6
- Eagly, A. H. (1987). *Sex differences in social behavior: A social-role interpretation*. New York, NY: Psychology Press.
- Eagly, A. H., and Steffen, V. J. (1984). Gender stereotypes stem from the distribution of women and men into social roles. *J. Pers. Soc. Psychol.* 46, 735–754. doi: 10.1037/0022-3514.46.4.735
- Eagly, A. H., and Wood, W. (2016). "Social role theory of sex differences" in *The Wiley Blackwell Encyclopedia of gender and sexuality studies*. eds. M. Naples, R. C. Hoogland, M. Wickramasinghe and W. C. A. Wong (New York, NY: John Wiley and Sons), 1–3.
- Eagly, A. H., Wood, W., and Diekmann, A. B. (2000). "Social role theory of sex differences and similarities: a current appraisal" in *The developmental social psychology of gender*. eds. T. Eckes and H. M. Trautner (Mahwah, NJ: Erlbaum), 123–174.
- Eid, M., Gollwitzer, M., and Schmitt, M. (2011). *Statistik und Forschungsmethoden Lehrbuch*. Beltz: Weinheim.
- Ellemers, N. (2018). Gender stereotypes. *Annu. Rev. Psychol.* 69, 275–298. doi: 10.1146/annurev-psych-122216-011719
- Faul, F., Erdfelder, E., Buchner, A., and Lang, A. G. (2009). Statistical power analyses using G* Power 3.1: tests for correlation and regression analyses. *Behav. Res. Methods* 41, 1149–1160. doi: 10.3758/BRM.41.4.1149
- Faul, F., Erdfelder, E., Lang, A. G., and Buchner, A. (2007). G* Power 3: a flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behav. Res. Methods* 39, 175–191. doi: 10.3758/BRM.39.1.175
- Figuer, B., and Weber, E. U. (2011). Who takes risks when and why? Determinants of risk taking. *Curr. Dir. Psychol. Sci.* 20, 211–216. doi: 10.1177/0963721411415790
- Gallego, M. J., Botella, C., Quero, S., Baños, R. M., and García-Palacios, A. (2007). Psychometric properties of the brief version of the fear of negative evaluation scale (BFNE) in a clinical population. *Rev. Psicopatol. Psicol. Clín.* 12, 163–176. doi: 10.5944/rppc.vol.12.num.3.2007.4042
- Glick, P., and Fiske, S. T. (1997). Hostile and benevolent sexism: measuring ambivalent sexist attitudes toward women. *Psychol. Women Q.* 21, 119–135. doi: 10.1111/j.1471-6402.1997.tb00104.x
- Gowen, R., Filipowicz, A., and Ingram, K. K. (2019). Chronotype mediates gender differences in risk propensity and risk-taking. *PLoS One* 14:e0216619. doi: 10.1371/journal.pone.0216619
- Guinote, A. (2017). How power affects people: activating, wanting, and goal seeking. *Annu. Rev. Psychol.* 68, 353–381. doi: 10.1146/annurev-psych-010416-044153
- Haines, E. L., Deaux, K., and Lofaro, N. (2016). The times they are a-changing... or are they not? A comparison of gender stereotypes, 1983–2014. *Psychol. Women Q.* 40, 353–363. doi: 10.1177/0361684316634081
- Harrison, J. D., Young, J. M., Butow, P., Salkeld, G., and Solomon, M. J. (2005). Is it worth the risk? A systematic review of instruments that measure risk propensity for use in the health setting. *Soc. Sci. Med.* 60, 1385–1396. doi: 10.1016/j.socscimed.2004.07.006
- Hayes, A. F. (2009). Beyond Baron and Kenny: statistical mediation analysis in the new millennium. *Commun. Monogr.* 76, 408–420. doi: 10.1080/03637750903310360
- Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York, NY: Guilford Publications.
- Howard, M. C., and Fox, F. R. (2020). Does gender have a significant relationship with social courage? Test of dual sequentially mediated pathways. *Pers. Individ. Differ.* 159:109904. doi: 10.1016/j.paid.2020.109904
- Kamas, L., and Preston, A. (2012). The importance of being confident; gender, career choice, and willingness to compete. *J. Econ. Behav. Organ.* 83, 82–97. doi: 10.1016/j.jebo.2011.06.013
- Keener, E., and Strough, J. (2017). Having and doing gender: young adults' expression of gender when resolving conflicts with friends and romantic partners. *Sex Roles* 76, 615–626. doi: 10.1007/s11199-016-0644-8
- Keltner, D., Gruenfeld, D. H., and Anderson, C. (2003). Power, approach, and inhibition. *Psychol. Rev.* 110, 265–284. doi: 10.1037/0033-295X.110.2.265
- Leary, M. R. (1983). A brief version of the fear of negative evaluation scale. *Personal. Soc. Psychol. Bull.* 9, 371–375. doi: 10.1177/0146167283093007
- Leary, M. R. (1992). Self-presentational processes in exercise and sport. *J. Sport Exercise Psych.* 14, 339–351. doi: 10.1123/jsep.14.4.339
- Liss, M., and Schiffrin, H. H., and Rizzo, K. M. (2013). Maternal guilt and shame: the role of self-discrepancy and fear of negative evaluation. *J. Child Fam. Stud.* 22, 1112–1119. doi: 10.1007/s10826-012-9673-2
- Llinares-Insa, L. I., González-Navarro, P., Córdoba-Iñesta, A. I., and Zacarés-González, J. J. (2018). Women's job search competence: a question of motivation, behavior, or gender. *Front. Psychol.* 9:137. doi: 10.3389/fpsyg.2018.00137
- López-Sáez, M., and Morales, J. F. (1995). "Gender stereotypes in the Spanish population: looking toward the future" in *Gender, management and science*. eds. L. Amâncio and C. Nogueira (Braga, Portugal: Instituto de Educação e Psicologia, Universidade do Minho), 151–168.
- López-Sáez, M., Morales, J. F., and Lisbona, A. (2008). Evolution of gender stereotypes in Spain: traits and roles. *Span. J. Psychol.* 11, 609–617. doi: 10.1017/S1138741600004613
- López-Zafra, E., García-Retamero, R., and Berrios-Martos, M. P. B. (2012). The relationship between transformational leadership and emotional intelligence from a gendered approach. *Psychol. Rec.* 62, 97–114. doi: 10.1007/BF03395790
- Lozano, L. M., Megías, A., Catena, A., Perales, J. C., Baltruschat, S., and Cándido, A. (2017). Spanish validation of the domain-specific risk-taking (DOSPRT-30) scale. *Psicothema* 29, 111–118. doi: 10.7334/psicothema.2016.132
- Meijs, M., Ratliff, K. A., and Lammers, J. (2019). Perceptions of feminist beliefs influence ratings of warmth and competence. *Group Process. Intergr. Relat.* 22, 253–270. doi: 10.1177/1368430217733115
- Meyers-Levy, J. (1989). "Gender differences in information processing: a selectivity interpretation" in *Cognitive and affective responses to advertising*. eds. P. Cafferata and A. M. Tybout (Lexington, MA: Lexington Books).
- Morgenroth, T., Fine, C., Ryan, M. K., and Genat, A. E. (2018). Sex, drugs, and reckless driving: are measures biased toward identifying risk-taking in men? *Soc. Psychol. Personal. Sci.* 9, 744–753. doi: 10.1177/1948550617722833
- Mueller, S. L., and Dato-on, M. C. (2013). A cross cultural study of gender-role orientation and entrepreneurial self-efficacy. *Int. Entrep. Manag. J.* 9, 1–20. doi: 10.1007/s11365-011-0187-y
- Panno, A., Donati, M. A., Milioni, M., Chiesi, F., and Primi, C. (2018). Why women take fewer risk than men do: the mediating role of state anxiety. *Sex Roles* 78, 286–294. doi: 10.1007/s11199-017-0781-8
- Paulhus, D. L. (1984). Two-component models of socially desirable responding. *J. Pers. Soc. Psychol.* 46, 598–609. doi: 10.1037/0022-3514.46.3.598
- Piqueras, J. A., Espinosa-Fernández, L., García-López, L. J., and Beidel, D. C. (2012). Validación del "Inventario de ansiedad y fobia social-forma breve" (SPAI-B) en jóvenes adultos españoles. *Psicol. Conduct.* 20, 505–528. doi: 10.15689/ap.2019.1802.16760.05
- Powell, G. N., and Greenhaus, J. H. (2010). Sex, gender, and the work-to-family interface: exploring negative and positive interdependencies. *Acad. Manag. J.* 53, 513–534. doi: 10.5465/AMJ.2010.51468647

- Rolison, J. J., and Shenton, J. (2020). How much risk can you stomach? Individual differences in the tolerance of perceived risk across gender and risk domain. *J. Behav. Decis. Mak.* 33, 63–85. doi: 10.1002/bdm.2144
- Rudman, L. A., Moss-Racusin, C. A., Phelan, J. E., and Nauts, S. (2012). Status incongruity and backlash effects: defending the gender hierarchy motivates prejudice against female leaders. *J. Exp. Soc. Psychol.* 48, 165–179. doi: 10.1016/j.jesp.2011.10.008
- Rudman, L. A., and Phelan, J. E. (2008). “Backlash effects for counterstereotypical behavior in organizations” in *Research in organizational behavior*. Vol. 28. eds. A. P. Brief and B. M. Staw (New York, NY: Elsevier), 61–79
- Salvati, M., Piumatti, G., Giacomantonio, M., and Baiocco, R. (2019). Gender stereotypes and contact with gay men and lesbians: the mediational role of sexism and homonegativity. *J. Community Appl. Soc. Psychol.* 29, 461–473. doi: 10.1002/casp.2412
- Santos-Ruiz, A., García-Ríos, M. C., Fernández-Sánchez, J. C., Pérez-García, M., Muñoz-García, M. A., and Peralta-Ramírez, M. I. (2012). Can decision-making skills affect responses to psychological stress in healthy women? *Psychoneuroendocrinology* 37, 1912–1921. doi: 10.1016/j.psyneuen.2012.04.002
- Schmid, P. C., Schmid Mast, M., and Mast, F. W. (2015). Prioritizing—the task strategy of the powerful? *Q. J. Exp. Psychol.* 68, 2097–2105. doi: 10.1080/17470218.2015.1008525
- Slinker, B. K., and Glantz, S. A. (1985). Multiple regression for physiological data analysis: the problem of multicollinearity. *Am. J. Physiol-Reg. I.* 249, R1–R12. doi: 10.1152/ajpregu.1985.249.1.R1
- Sutherland, C. A., Young, A. W., Mootz, C. A., and Oldmeadow, J. A. (2015). Face gender and stereotypicality influence facial trait evaluation: counterstereotypical female faces are negatively evaluated. *Br. J. Psychol.* 106, 186–208. doi: 10.1111/bjop.12085
- Van den Bos, R., Homberg, J., and de Visser, L. (2013). A critical review of sex differences in decision-making tasks: focus on the Iowa Gambling Task. *Behav. Brain Res.* 238, 95–108. doi: 10.1016/j.bbr.2012.10.002
- Ward, S. J., and King, L. A. (2018). Gender differences in emotion explain women's lower immoral intentions and harsher moral condemnation. *Personal. Soc. Psychol. Bull.* 44, 653–669. doi: 10.1177/0146167217744525
- Watson, D., and Friend, R. (1969). Measurement of social-evaluative anxiety. *J. Consult. Clin. Psychol.* 33, 448–457. doi: 10.1037/h0027806
- Weis, A. S., Redford, L., Zucker, A. N., and Ratliff, K. A. (2018). Feminist identity, attitudes toward feminist prototypes, and willingness to intervene in everyday sexist events. *Psychol. Women Q.* 42, 279–290. doi: 10.1177/0361684318764694
- Weisgram, E. S., Dinella, L. M., and Fulcher, M. (2011). The role of masculinity/femininity, values, and occupational value affordances in shaping young men's and women's occupational choices. *Sex Roles* 65, 243–258. doi: 10.1007/s11199-011-9998-0
- Yi-Hsiu, L., and Chen-Yueh, C. (2013). Masculine versus feminine sports: the effects of peer attitudes and fear of negative evaluation on sports participation among Taiwanese college students. *Int. Rev. Soc. Psychol.* 26, 5–23.
- Zhang, D. C., Foster, G. C., and McKenna, M. G. (2019). Is the DOSPRT gender invariant? A psychometric test of measurement invariance. *J. Behav. Decis. Mak.* 32, 203–211. doi: 10.1002/bdm.2105

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright © 2020 Villanueva-Moya and Expósito. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.



LGBTQs and LAW'S Violence Within a Heteronormative Landscape

Anthony Donnelly-Drummond*

Department of Social Sciences, Leeds Beckett University, Leeds, United Kingdom

This article raises concerns as to the way in which specific exemptions within equality law across the United Kingdom may be viewed as a form of violence against LGBTQs.¹ The overarching concept of heteronormativity and its impact is aired. The possible impact of exemptions for religious organisations to legally discriminate on grounds of sexual orientation under Northern Ireland's Equality Act 2006 acting as a catalyst for the Asher's cake incident, is reviewed. Similarly, the effect of exemptions under the Equality Act 2010 feasibly lending support for protestors against inclusion of LGBTQ issues in a Birmingham school is made clear. Thereafter the invisibility of LGBTQs within curricula is raised alongside the legacy of section 28. Overall, the article raises the spectre that specific aspects of equality legislation, designed to protect individuals on a range of grounds, may be perceived as not only flawed but inherently violent due to the dehumanizing impact on LGBTQ people. In addition, concerns are raised that against this background, within the United Kingdom there has been a failure to educate all students as to contemporary issues of diversity, potentially harming their development as citizens in our diverse contemporary society.

OPEN ACCESS

Edited by:

Kath Woodward,
The Open University, United Kingdom

Reviewed by:

Maude Modimothebe Dikobe,
University of Botswana, Botswana
Mark Vicars,
Victoria University, Australia

*Correspondence:

Anthony Donnelly-Drummond
a.drummond@leedsbeckett.ac.uk

Specialty section:

This article was submitted to
Gender, Sex and Sexualities,
a section of the journal
Frontiers in Sociology

Received: 20 May 2020

Accepted: 14 January 2021

Published: 09 March 2021

Citation:

Donnelly-Drummond A (2021)
LGBTQs and LAW'S Violence Within a
Heteronormative Landscape.
Front. Sociol. 6:564028.
doi: 10.3389/fsoc.2021.564028

Keywords: law's violence, LGBTQs, peripheral inclusion, equality Act 2010, equality Act NI 2006

INTRODUCTION

The focus of this paper is to raise concerns as to equality, diversity and cohesion and especially, the health and well-being of LGBTQs within all areas of education. This is accomplished by arguing that across the United Kingdom, particular aspects of equality law, its purpose being to protect individuals from discrimination on the grounds of their protected characteristics² can, in two specific circumstances reviewed here (both events underscored by exemptions within equality law designed to protect and promote religious dogma) be viewed (at the very least) as psychological/verbal violence against LGBTQ people.³ Within this apparent heteronormative landscape it is demonstrated below how the human dignity of LGBTQs is diminished.

In the first instance the concept of heteronormativity is raised briefly to underscore its overall impact on LGBTQ people. Thereafter the spectre of law's violence is critiqued relative to equality legislation. The potential influence of exemptions related to the Equality Act Northern Ireland underscored by the infamous Asher's cake row in that jurisdiction is redressed whilst links are also

¹As set out by the Trans Student Organization "queer" is a general term for gender and sexual minorities who are not cisgender and/or heterosexual. The term may also be viewed as reclaiming the word from haters, and may be employed as a description for anyone who does not adhere to a heteronormative society's views of gender "norms". <https://www.transstudent.org/>.

²<https://www.equalityhumanrights.com/en/equality-act/protected-characteristics>.

³See the chapter entitled "Criminalizing Queerness" for Buist and Lenning's (2016) discussion on the impact of anti-LGBT legislation in the United States in Queer Criminology, Routledge.

made between similar exemptions under equality law in Britain and the long running protest at inclusive education outside a Birmingham school in 2019. Prior to concluding this work the issue of LGBTQ inclusion within curricula (including that of higher education) is assessed in some detail to underscore the situation for this community to date.

Heteronormativity

A report by Syracuse University (2004: iv) stated that “heteronormativity” refers to “an ideology based on definitions of what it means to be a woman or a man that exclude and discriminate against a significant minority population.” Therefore wherever this system of oppression is identified within the education system “..there remains an onus on willing educators to disrupt and undo [it]” (Adams 2004 in Syracuse University, 2004: iv). As will become evident, the ideology of heteronormativity is echoed in exemptions to equality legislation, and, apparent within the education system per se. Yet it is argued below that whilst, to varying degrees, all law may be considered violent in its consequences the exemptions impacting LGBTQs under equality laws across the United Kingdom related to religious dogma sit uncomfortably with the main ethos of such legislation: to protect from discrimination as opposed to embedding some discrimination within such laws.⁴ In the first instance then there is a need to interrogate what is meant by the violence inherent within law.

LAW'S Violence

Before discussing issues concerning the situation of LGBT students within society, including the education system, it is pertinent to raise concerns at what is perceived here to be the violence pertaining to exemptions within equality legislation across the United Kingdom and, to reflect on the signification of this for those who may like to feel not only right [teous] but likeable if they openly discriminate against LGBTQs. Hay (1993) believes that all law is violent. The violence of law need not be considered purely as physical or psychological when for example a prisoner is incarcerated. Whilst jail can be experienced physically and emotionally, the poverty and deprivation suffered by offspring as a consequence of parents being fined (often females) for example, may also be considered as violence when a mother cannot afford to care properly for her children when fined (or jailed) for instance, as a result of not being able to afford a tv licence (Gil, 2019). Nevertheless, within Britain under the Equality Act 2010 LGBTQs are protected from discrimination in access to goods and services.⁵ Yet, as made clear below, within

that Act, and the almost identical one preceding it in Northern Ireland, discrimination (a form of psychological violence, if not physical dependent upon the longer term impact of it) against LGBTQs is also *legally* permitted in certain cases.

Northern Ireland's equality legislation was enacted in 2006 and contains exemptions permitting discrimination against Queer people. On the ground of sexual orientation, under the Northern Ireland Statutory Rules 2006 No. 439 of the Equality Act 2006, within the remit of “Organisations relating to religion or belief” it is stated that:

- (5) Paragraphs (3) and (4) permit a restriction [essentially, permitting discrimination]⁶ only if imposed —
 - (1) if it is necessary to comply with the doctrine of the organization; or
 - (2) so as to avoid conflicting with the strongly held religious convictions of a significant number of the religions followers.⁷

Across Britain almost identical exemptions apply under the Equality Act 2010. As stated within a briefing by the Universities and College Union (2019) there are specific exemptions within the Equality Act 2010 “for religious organisations (schedule 23) 4 in relation to sexual orientation.” More specifically, as revealed by the Equality and Human Rights Commission (2016) an exemption is permissible allowing:

... a non-commercial religion or belief organization to impose restrictions in relation to sexual orientation where this is necessary to comply with its doctrine, or to avoid conflict with the strongly held convictions of a significant number of members of the religion or belief. (*ibid*: 41).⁸

Likewise the Citizens Advice (2020) website blog: “Religious organisations and charities: when discrimination is allowed in the provision of goods or services” states that “...there are some situations in which discrimination is allowed” permitting “...exclusion from participation in certain activities or services ... [to] restrict membership of the organization [and] restrict the use of its premises”. Unfortunately though even the Advisory Conciliation and Arbitration Service (2016) are no clearer as to how this legally permitted discrimination impacts LGBTQs in actuality stating that:

⁴Square brackets denote my own views.

⁷<http://www.legislation.gov.uk/nisr/2006/439/regulation/16/made>.

⁸See also the following: Circumstances when being treated differently due to sexual orientation is lawful: A difference in treatment may be lawful if: ... a religious or belief organization is excluding persons of a particular sexual orientation from its membership or participation in its activities, or its provision of goods, facilities and services. This only applies to organisations whose purpose is to practice, promote or teach a religion or belief, whose sole or main purpose is not commercial. The restrictions they impose must be necessary either to comply with the doctrine of the organization, or to avoid conflict with the “strongly held religious convictions” of the religion's followers. <https://www.equalityhumanrights.com/en/advice-and-guidance/sexual-orientation-discrimination> [Accessed: 12/10/20].

⁴See Gov.uk: <https://www.gov.uk/discrimination-your-rights/how-you-can-be-discriminated-against> [Accessed: 14/10/20].

⁵Prior to the Act being passed Petre (2006) revealed it was clear some religious leaders voiced objections for example: Rupert Kaye, the chief executive of the Association of Christian Teachers, said: “Diverse individuals and organisations should be free to agree to disagree. They should not be required by law to show ‘mutual respect’ to individuals or organisations whose beliefs or lifestyle are anathema.” Whilst “Dr. Majid Katme, the spokesman for the Islamic Medical Association, argued that the proposals demonstrated that the Government was prepared to discriminate against faith communities in order to promote ‘equality.’”

The Equality Act has specific exemptions where employment is for the purpose of organized religion, such as being a Minister or otherwise promoting or representing the religion. This means that some roles can be restricted to people of a particular sexual orientation. There can also be additional requirements related to sexual orientation, such as a requirement for gay men or lesbians to be celibate. Restrictions concerning religion can also apply to the protected characteristics of sex, gender reassignment, and marriage and civil partnership.

It remains totally opaque as to what “promoting or representing the religion” infers in practice and given that the right to choose a partner is broadly protected especially under Article eight of the Human Rights Act 1998 “Right to respect for private and family life” the fact that additional requirements of religious organisations can require gay men or lesbians to be celibate is of concern and contra to human rights law. Denying a person sexual agency (as with discrimination in general) is also a form of psychological violence which could engender physical harm such as raised blood pressure and likely cardiovascular disease (Everett and Mollborne 2013)⁹ or even, suicide (Paul et al., 2011). Thus across the United Kingdom it appears to be the case that LGBTQ staff working for religious institutions can rightly fear being fired if their orientation comes to light whilst anyone revealing their sexual orientation as LGBTQ at an interview for work with a religious institution may fear being refused a job.¹⁰ In line with the views of Hay (1993) once employed, the fear of being sacked from the employ of a religious organization on grounds of sexual orientation coming to light or, being refused work/fearing refusal can all be considered as examples of law's violence whereby this takes the form of psychological harm (not forgetting the long-term impact of psychological harm on the body biologically) and financial penalties/poverty/lack of opportunity to compete on equal grounds within (heteronormative) society (Moore, 2009)¹¹ It may indeed be the case that these exemptions lend support to anti-LGBT stances taken by protestors wanting to appear both right [teous] and likeable, especially under the guise of religion. Despite this grave situation, the Government Equalities Office National LGBT Survey (2018: 5) claimed that:

Since 1967, when Parliament partially decriminalized male homosexual acts in England and Wales, the United Kingdom has made significant progress to advance equality for LGBT people. Recent milestones include bringing in the Marriage (Same-Sex Couples) Act 2013, which allowed same sex couples to marry, and introducing “Turing's Law” in the Policing and Crime Act 2017, which posthumously pardons men who were convicted for having sex with men prior to 1967 where the offense is no longer a crime. Our Parliament now has the highest proportion of openly lesbian, gay and bisexual members of any legislature in the world and we are consistently ranked as one of the best countries in Europe for LGBT rights.

Nevertheless, the Government Equalities Office Survey (2018: 5) then cautioned that:

Despite this progress on legal entitlements, research and evidence has continued to suggest that LGBT people face discrimination, bullying and harassment in education, at work and on the streets, hate crime and higher inequalities in health satisfaction and outcomes.¹²

As redressed below, the issue of exemptions permitting discrimination against LGBTQs across the whole of the United Kingdom under equality laws may have emboldened Asher's¹³ bakery in Northern Ireland (owned by evangelical Christians) to refuse to bake a cake with a slogan supporting gay weddings. These exemptions could also have encouraged religiously minded protestors to raise their voices outside a school in Birmingham in Spring 2019 discussed in due course. In the first instance, the Asher's case is discussed.

In 2014 Gareth Lee “..had ordered a ‘..cake depicting the Sesame Street characters Bert and Ernie below the motto ‘Support gay marriage’ for an event to mark International Day Against Homophobia’ (McDonald, 2016) Thereafter Ashers refused to complete the order for the cake, declining to do so as it was ‘at odds with its beliefs’ (BBC, 2019, A). Lee, supported by the Equality Commission for Northern Ireland took a case of discrimination out against the owners and won it. On appeal against the decision by the owners of Ashers in October 2016, the court upheld the original finding that Ashers had been guilty of discrimination. Following the decision, John O'Doherty director of the Rainbow Project, said:

Ashers Baking Company entered into a contractual agreement to make this cake and then changed their mind. Sympathetic as some may be to the position in

⁹Everett and Mollborne (2014: 1) found that: Gay or mostly gay men face almost twice the risk of being hypertensive compared to heterosexual men. And that “Increased exposure to stigma and discrimination may in part explain gay men's increased cardiovascular risk.”

¹⁰I have met people who work for religious organisations in the United Kingdom and live in fear of being outed and losing their jobs. I also know an academic colleague who was refused a job with a religious organization because she came out to the interviewer.

¹¹In discussion of the Act that was soon to become law Moore (2009) stated that: “A Government Equalities Office spokesman said: ‘The Equality Bill will not force a church to accept someone as a priest regardless of their sexual orientation or gender.’” Also that: “Churches, synagogues, mosques and others will continue to have the freedom to choose who they employ in jobs which promote their religion. But where they provide services to the public they will have to treat everyone fairly.”

¹²The same survey also noted that a quarter (24%) of all respondents living with family members, excluding partners, were not open at all about being LGBT (2018:12).

¹³Ashers “gay cake” row referred to European Court <https://www.bbc.co.uk/news/uk-northern-ireland-49350891#>.

which the company finds itself, this does not change the facts of the case. The judgment clearly articulated that this is direct discrimination for which there can be no justification (McDonald, 2016: NP).

At time of writing, the decision appears to refute the claim made here that exemptions within the equality legislation on grounds of sexual orientation may encourage discrimination yet as of August 2019 Ashers appealed to the European Court to have the decision overturned (BBC News, 2019). This is despite the fact that under 16.2. Two of the Equality Act Northern Ireland the following is stated: “(2) This regulation [discrimination] does not apply 1) to an organization whose sole or main purpose is commercial”. It can be argued that Asher’s sole purpose was as a commercial enterprise and not religious. However, whether or not the exemptions within equality legislation (law’s violence) encouraged stances such as those taken by the owners of Asher’s Bakers, lines may be drawn between their objection to gay marriage, and, the impact of exemptions under the Equality Act 2010 in Britain and the protest against the inclusion of LGBT issues within the curriculum at a school in Birmingham in the United Kingdom in Spring 2019, broadcast widely by the media as discussed below.

Throughout the Spring of 2019 anger was shown by some members of the public toward inclusive education at a school in Birmingham England (Parveen, 2019). The loud disruptive demonstrations were concerned with, according to protestors, children being taught inappropriate content on LGBT issues. Parveen (2019) noted that:

Most of the protesters have been of Muslim faith and some have stood regularly outside the school chanting “Let kids be kids” and carrying placards with the message: “Adam and Eve, not Adam and Steve.”

Lines can be drawn here between the fact that Ashers are Christians and, most demonstrators in Birmingham were said to have been Muslim. It should not be overlooked however that Muslim demonstrators used the largely (yet not exclusively) Christian scenario of Adam and Eve to attract sympathy for their cause.¹⁴ However, Parveen (2019: np) also stated that:

Birmingham city council launched court action to prevent more protests outside the school after about 300 people gathered at the gates in May. The demonstration included a highly controversial speech by an imam who claimed [incorrectly that] anal sex, paedophilia and “transgenderism” were being taught in schools.

In November 2019 the High Court ruled that a temporary exclusion zone placed around the school to prevent protests would become permanent (Parveen, 2019) as:

...the anti-social behavior was having a “significant adverse impact” on pupils, teachers and the local community. Children at the school had to be kept inside with all the windows locked to avoid the “intolerable” noise from protesters on megaphones and often involving people with no direct connection to the school.

Delivering his verdict, Mr Justice Mark Warby said:

The judgment notes that the true position so far as the teaching is concerned has been misrepresented, sometimes grossly misrepresented, in the course of the protests. Speakers ... have alleged that it [the school] is pursuing a “paedophile agenda”, and teaching children how to masturbate. None of this is true (Parveen, 2019).

Given the exemptions within equality legislation discussed earlier though, and, reflecting heteronormativity, it is of interest that:

...the Christian campaigner John Allman from Okehampton, Devon,...opposed the imposition of what he claimed would be a “super-injunction” and went on to score the only victory in the case when Justice Warby lifted his earlier ban on social media criticism of LGBT teaching, accepting the argument for free online speech (*ibid*: 2019).

Similarly to the Asher’s case, at the time of writing, following the verdict, the protesters said “an appeal was ‘highly likely’ and their campaign would go on with protests at the edge of the exclusion zone continuing” (Parveen, 2019). Overall then, the Ashers case and that of the protest in Birmingham are linked by objections based on religious grounds. Ashers refused to “support” gay marriage by advertising such a stance on a cake whilst the protestors in Birmingham appeared not to want children to hear about diversity. Both underscoring objections to any relationship that is not heteronormative underlined by (in the Birmingham case) placards related to the hugely symbolic scenario of Adam and Eve not “Adam and Steve”.

Given what has been stated so far all of us should be concerned that against this background hate crime against LGBTs is on the increase (Stonewall, 2019). A few years earlier in 2017 a survey by the TUC (2018) identified that “[A]round seven out of ten LGBT workers [had] experienced at least one type of sexual harassment at work (68 per cent)” therefore it appears to be the case that despite equality laws offering protection from discrimination, homophobia, underscored by the exemptions for religious beliefs within equality legislation (which likely act as a catalyst for discrimination) remains a very real problem (Rivers, 2011). Within such a hostile environment who knows how many children remain victims of a heteronormative agenda (Syracuse University, 2004) within families where any mention of LGBTQ issues may be met with silence or worse if they were to come out (Hockaday, 2019). In fact Hockaday (2019) indicated

¹⁴The author’s opinion is that doing so was used to elicit greater sympathy and support from religious others across the United Kingdom.

the worse-case scenario is the lived experience for some children: ...research from the [Albert Kennedy Trust, a charity supporting LGBT youth] charity found that:

Twenty four per cent of homeless people aged 16–25 identified as LGBT+. More than three-quarters (77 per cent) citing abuse and rejection from their family as a reason for them losing their homes. A quarter of people surveyed by YouGov said relationships and sex education should not include LGBT issues, while 59 per cent supported including topics such as gender identity and sexuality at an age appropriate level

Thus a discussion is necessary as to the position of children and young people as they are educated (or not) as to the rights of LGBTQ people. The issue may also be perceived as a matter of health (especially mental health) and safety for all within all sectors of education in the United Kingdom, and, an issue regarding encouraging social cohesion. As exemplified earlier here, heteronormativity appears to loom large as underscored by the exemptions relevant to LGBTQs and religious organisations under equality laws. Currently, as advanced below, and perhaps reflecting exemptions for religious belief within equality legislation, it appears to be the case that largely within the United Kingdom there has been a failure to educate all students as to contemporary issues of diversity, potentially harming all in their future lives.

LGBTQ Inclusion Within Curricula?

In recent times, possibly the greatest disservice done to the LGBTQ communities in the United Kingdom was the imposition of section 28 (Lee, 2019: 675) by Thatcher's government whereby it was set out that:

A local authority shall not—1) intentionally promote homosexuality or publish material with the intention of promoting homosexuality; 2) promote the teaching in any maintained school of the acceptability of homosexuality as a pretended family relationship

Lee (2019: 676) comments that

State schools at that time in England were under local authority jurisdiction and so it was widely assumed that this piece of legislation prohibited LGBT + teachers from being open about their own sexual identity in the workplace, or discussing non-heterosexual relationships in their classrooms.

Despite the repeal of section 28 in 2003 (Twocock, 2019: np) inclusive education has yet to be addressed and as discussed by Lee (2019) the shadow cast by section 28 still impacts long-term on teachers who taught under that proviso. In September 2020 however it is said that '...new regulations for teaching relationships and sex education (RSE) in English schools would come into force (Twocock, 2019) so a new era is heralded for inclusivity. Yet it is doubtful that those who are

homophobic will necessarily change their attitudes overnight and the exemptions outlined earlier can only bolster such prejudice. Therefore what is known about the experiences of gay young people in Britain's schools and other areas of education remains of concern.

On reflection as to the "The School Report: the experiences of gay young people in Britain's schools in 2012" (Guasp, 2012) in an online blog, Stonewall observed that:

...one in three lesbian, gay or bi young people who are bullied [at school] consider changing their future educational plans because of it, for instance by deciding not to go to university or college. Universities that take steps to combat homophobic, biphobic and transphobic bullying, and promote their work in this area, will encourage these young people to carry on in education and to apply to study at their institution (Stonewall, 2017)

Later, The National Union of Students (2014): 1) identified that:

...many LGBT people continue to feel isolated in education and society. Many suffer mental health and financial issues and all too often we hear cases of LGBT students leaving education as an indirect result of their identity.

In fact, many of the statistical results presented by the NUS in 2014 were cause for alarm: only two in ten trans students felt completely safe on campus being less than half the proportion of their heterosexual counterparts (43 per cent) whilst only 36.7% per cent of LGB + students felt completely safe on campus. One out of five LGB+ and one in three trans participants had experienced bullying (Mayo, 2013) or harassment on campus and LGB + students are reported as being slightly more likely to drop out of HE¹⁵ than heterosexuals:¹⁶ the rates are 25 per cent for heterosexual students, 27.7 per cent for gays, 26.6 per cent for lesbians and 30 per cent for bisexuals. In addition, more than half of LGB + respondents (56 per cent) cited that they felt they did not fit in as the main reason for dropping out. Moreover, it is reported that LGBT students having experienced homophobic or transphobic harassment are two—three times more likely to consider leaving their course. In addition 51% of trans students had considered dropping out of studies.

The perception of LGBTQ students not fitting in and subsequently dropping out of university underscores the need for LGBTQs to see themselves reflected much earlier within

¹⁵As indicated by the Albert Kennedy Trust later in this article many homeless youths are found to be LGBTQ. It is reported that when some students come out to their parents, some are then cut off from financial and emotional support. This issue is under-researched and it may be the case that LGBTQ students are far more likely to drop out of education due to this type of scenario.

¹⁶There is a gap in information here: what about those students that are not open about their orientation/those that were not consulted or declined to engage with the survey.

curricula (Taylor, 2020). In fact, on the issue of primary school, where inclusive education could help to embed the ethos of respect for diversity in all children at a much earlier age Taylor (2020: np) observes that:

Children are presented with a range of narratives, stories and movies featuring heterosexual relationships from a very young age, so it's vital for them to see same-sex relationships too, otherwise we are telling them that these relationships are different, "other" and in some way shameful.

Taylor's (2020) observations aside though, within HE it appears to be the case that with regards actual pedagogic practice, on a scale of 1–10 it was reported that:

LGB + students' average score of agreement with the statement "I see LGB experiences and history reflected in my curriculum" is only 3.9 and for trans students it is 3.5. For the statement, "I see trans experiences and history reflected in my curriculum," the scores are 2.8 for LGB + students and 2.5 for trans students¹⁷ (National Union of Students, 2014: 2).

Perhaps not surprisingly it was found by the National Union of Students, (2014) that "LGBT students who are out to their tutors tend to feel more confident to speak up in class (89 per cent) than those who are only out to their friends (79 per cent)"¹⁸ (*ibid*: 6). However, it is also stated that "Gay men students tend to experience more harassment and abuse on the grounds of their sexual orientation than lesbian and bisexual women" (National Union Students, 2014: 24). So in 2014 it was evident that there was room for improvement regarding the situation of LGBTQ students.

Given the issues raised above, concerns remain as to the situation of any LGBT students that consolidate their educational journey by undertaking studies in Higher Educational institutions. In fact, underscoring these concerns, in 2017 Gale and Ward (2017a) warned that whilst: "In the

United Kingdom, we have made great legal strides toward equality"...culturally we are still playing catch up—and higher education is just one of the places where LGBTQ people are being failed."

More lately, in another report for Stonewall (Bachman and Gooch, 2018: 3) Ruth Hunt Chief Executive stated that:

University is a time for all students to learn, grow and enjoy independence. But for many lesbian, gay, bi and trans students, the experience can be marred by discrimination, exclusion and abuse because of who they are.

Despite Hunt stating that progress has been made regarding equality and inclusion for LGBTQs on campuses across the United Kingdom it is of concern that the following issue was identified:

University remains a challenging environment for many LGBT students to be themselves. A concerning number of LGBT students still don't feel safe to disclose their sexual orientation and/or gender identity. Some have even been encouraged by university staff to hide their identity at university (Bachman and Gooch, 2018: 9).

The importance of the above finding is underscored by the fact that:

A welcoming university environment is important because many LGBT students cannot be open about being LGBT with their family. One in five lesbian, gay and bi students (20 per cent) aren't open to anyone in their family about their sexual orientation. One in six trans students (16 per cent) aren't open to anyone in their family about their gender identity (*ibid*: 9).

Perhaps of utmost concern, given their intersectionality, was the finding that: 'LGBT disabled students are particularly likely to have been the target of such remarks from other students; almost half of LGBT disabled students (47 per cent) have experienced this (Bachman and Gooch, 2018: 9). However, the fact that "[M]ore than two in five LGBT students (42 per cent) hid or disguised that they are LGBT at university in the last year because they were afraid of discrimination" appears in stark contrast to the progress on LGBTQ issues claimed by Hunt (Bachman and Gooch, 2018: 3). Perhaps reflecting a swing to the right in society, if students are hiding their orientation we cannot know the true state of play regarding discrimination. There are also other concepts relevant to an inquiry into the experiences of LGBTQs within HE that should be noted. For example, the impact of minority stress which can encompass some or all of the following issues: feeling unsafe on campus especially in student accommodation, the reported higher drop-out rate of LGBTQ students, issues concerning mental health, lack of parental support for LGBTQ students in

¹⁷NUS (2014: 6).

¹⁸Many other authors have also influenced this research proposal with work concerning queer pedagogy, for example: Bryson and Castell (1993) "Queer Pedagogy; Praxis Makes I'm/Perfect," Canadian Journal of Education/Revue canadienne de l'éducation, Vol. 18, No. 3, Against the Grain: Narratives of Resistance, (Summer, 1993), pp. 285–305; Canon and Linhorst (2007) How will they understand if we don't teach them?: The status of criminal justice education on gay and lesbian issues; Dwyer (2015) "Teaching Young Queers a Lesson: How Police Teach Lessons about Non-Heteronormativity in Public Spaces," Sexuality and Culture, September 2015, Volume 19, Issue 3, pp 493–512; The Global Alliance for LGBT Education (2017) "The USA education secretary sees no problem when schools refuse LGBT students" Available at: https://www.gale.info/en/news/local_news/170525-devos-ok-with-discrimination-lgbt-students (Accessed: 05/07/17); Ren, A. K (2010) "LGBT and Queer Research in Higher Education: The State and Status of the Field," Educational Researcher, Vol. 39, No. 2, pp. 132–141 Available at: <https://msu.edu/~renn/RennLGBTQueerEdResearcher.pdf>; Lecky, R. and Brooks, K. (2010) Queer Theory: Law, Culture, Empire, Routledge, Glasshouse Books, Oxon.

some cases, some staff lacking confidence to challenge homophobia, and, a higher suicide rate for members of these communities (Gale and Ward, 2017b: B). Overall then, exemptions permitting legal discrimination within equality legislation appear very harmful indeed when combined with the knowledge that many children and young adults are being let down with the education system as the majority are uninformed as to diversity within society.

CONCLUSION

The concept of heteronormativity was raised briefly to underscore the probable rationale for discrimination (when it occurs) against LGBTQs in society. Heteronormativity being “an ideology based on definitions of what it means to be a woman or a man that exclude and discriminate against a significant minority population.” (Syracuse University, 2004: iv). Allowing age old revered and outmoded beliefs to trump rights may be one of the major reasons why exemptions exist relative to equality legislation across the United Kingdom, underscored by the infamous Asher’s cake row incident, and, perhaps influencing protestors outside a school in Birmingham in 2019. However, whilst within many jurisdictions such heteronormative stances are starting to be challenged and redressed all students of all ages are impacted by discrimination as children and young people are failed in the United Kingdom by an education system that has largely overlooked diversity in education concerning same-sex relationships. Yet hopefully that will change in due course (Twocock, 2019). Meanwhile though even at HE level, many concerns remain as to inclusion and diversity within the curriculum for LGBTQ students (whilst the impact on LGBTQ staff must not be overlooked) and students of all ages continue to be let down. Overall, I believe that religious organisations should not be permitted to legally discriminate against LGBTQ people in any form and that this top down discrimination permitted within *equality* law sends out entirely the wrong message emboldening some homophobic religious zealots within society to believe themselves right [teous] and likeable when their homophobia is permitted and encouraged by exemptions that turn equality law into the opposite of what, in this particular case, it was legislated for: to counteract the violence of homophobia be that experienced

physically or psychologically/emotionally or even in the form of poverty (for example when an LGBTQ person loses their job in a religious organisation/fails to be employed on those grounds). Therefore at present across society in the United Kingdom LGBTQs are left in no doubt they are not fully equal to their heterosexual counterparts within United Kingdom law. And this must change. Amen.

AUTHOR CONTRIBUTIONS

The contribution this article makes to the academy is that it encourages the reader to reflect on the fact that all law may be considered violent, and, can act as a catalyst for violence against certain peoples, in this instance LGBTQs. In particular, two major issues are examined: the Asher’s cake incident in Northern Ireland and the impact of exemptions related to religious organisations and discrimination on grounds of sexual orientation under Northern Ireland’s Equality Act 2006; and, the impact of exemptions under the Equality Act 2010 feasibly lending support for protestors against inclusion of LGBTQ issues in education (in a Birmingham school in 2019). However, both incidents underscore that across the education sector, LGBTQ students remain extremely vulnerable to events outside of their control within a heteronormative society and so far heteronormative education system, moreover, that to date, all students have been failed by a heteronormative education system. Overall, the article invites the reader to muse on the perspective that apparent top-down discrimination against LGBTQs remains largely unchallenged and set in stone within law, inflaming homophobia whilst enabling homophobes to appear both right and likeable.

ACKNOWLEDGMENTS

“This manuscript has been released in part as a pre-print at: Leeds Beckett LGBT+ in Schools <https://www.leedsbeckett.ac.uk/-/MEDIA/FILES/RESEARCH/LGBTQ-JUNE-FINAL.PDF?LA=EN> (Drummond, 2018, Reflections on a PGCAP: Disrupting Heteronormativity in Higher Education).”

REFERENCES

- Adams, S. (2004). *Interrupting heteronormativity*. Syracuse, NY: Syracuse University. Available at: <http://graduateschool.syr.edu/wp-content/uploads/2015/05/Interrupting-Heteronormativity-text.pdf> (Accessed January 12, 19), 13–20.
- Advisory Conciliation and Arbitration Service (2016). Guidance Sexual orientation discrimination: key points for the workplace. Available at: https://archive.acas.org.uk/media/4411/Sexual-orientation-discrimination-key-points-for-the-workplace/pdf/Sexual_Orientation_Discrimination_Nov.pdf (Accessed February 18, 20).
- Bachman, C. L., and Gooch, B (2018). LGBT in britain university report. Available at: <https://www.stonewall.org.uk/lgbt-britain-university-report> (Accessed January 12, 19)
- BBC News (2019). Ashers “gay cake” row referred to European court Available at: <https://www.bbc.co.uk/news/uk-northern-ireland-49350891> (Accessed 10 12, 19).
- Citizens Advice (2020). Website blog: Religious organisations and charities: when discrimination is allowed in the provision of goods or services. Available at: <https://www.citizensadvice.org.uk/consumer/discrimination-in-the-provision-of-goods-and-services/discrimination-in-the-provision-of-goods-and-services1/goods-and-services-what-are-the-different-types-of-discrimination/what-doesn-t-count-as-unlawful-discrimination-in-goods-and-services/religious-organisations-and-charities-when-discrimination-is-allowed-in-the-provision-of-goods-or-services/> (Accessed February 18, 20).
- Drummond, A. (2018). Reflections on a PGCAP: Disrupting Heteronormativity in Higher Education. Available at: <https://www.leedsbeckett.ac.uk/-/MEDIA/FILES/RESEARCH/LGBTQ-JUNE-FINAL.PDF?LA=EN> (Accessed 05 25, 20).
- Equality and Human Rights Commission Report (2016). Religion or belief: is the law working? Available at: <https://www.equalityhumanrights.com/sites/default/files/religion-or-belief-report-december-2016.pdf> (Accessed November 27, 19).

- Everett, B., and Mollborne, S. (2013). Differences in hypertension by sexual orientation among U.S. Young adults. *J. Community Health* 38 (3), 588–596. doi:10.1007/s10900-013-9655-3
- Gale, N. K., and Ward, N. (2017a). why LGBTQ inclusivity still matters in higher education. Available at: http://theconversation.com/why-lgbtq-inclusivity-still-matters-in-higher-education-74273?utm_source=twitter&utm_medium=twitterbutton (Accessed: May 06, 18).
- Gale, N. K., and Ward, N. (2017b). lgbtq-inclusivity in the higher education curriculum: a best practice guide. Available at: <https://intranet.birmingham.ac.uk/staff/teaching-academy/documents/public/lgbt-best-practice-guide.PDF> (Accessed 12 12, 19).
- Gil, N. (2019). Why tv licences are an unlikely feminist issue, Available at: https://www.refinery29.com/en-gb/2019/07/237240/tv-licence-evasion-women?utm_source=facebook&utm_medium=facebook_share&fbclid=IwAR0YJB0hxkaJwh1AxBlNqiiWbnmFrevJiyhQwwb71eLCqQFGuNBguy5e7fM (Accessed: October 13, 20).
- Guasp, A. (2012). The school report the experiences of gay young people in Britain's schools in 2012. Available at: https://www.stonewall.org.uk/system/files/The_School_Report_2012_.pdf (Accessed 12 01, 19). Stonewall, Accessed
- Hay, D. H. (1993). "Time, inequality, and law's violence," in *Laws Violence*. Editors A. Sarat and T. R. Keams (Ann Arbor, MI: University of Michigan Press), 141–174. Available at: www.jstor.org/stable/10.3998/mpub.13488.8
- Hockaday, J. (2019). One in four adults 'would not feel proud to have a gay child'. Available at: <https://metro.co.uk/2019/11/26/one-four-adults-not-feel-proud-gay-child-11222889/> (Accessed November 27, 19).
- Lee, C. (2019). Fifteen years on: the legacy of section 28 for LGBT+ teachers in English schools, *Sex Education-Sexuality Society and Learning* 19, 675–690. doi:10.1080/14681811.2019.1585800
- Mayo, J. B. (2013). Disrupting the hidden curriculum: LGBTQ youth and bullying. Available at: <https://cehdvision2020.umn.edu/blog/lgbtq-youth-bullying-prevention/> (Accessed December 04, 19).
- McDonald, H. (2016). "Gay cake" row: born-again Christian bakers lose court appeal, the Guardian. Available at: <https://www.theguardian.com/uk-news/2016/oct/24/born-again-christian-ashers-bakery-lose-court-appeal-in-gay-cake-row> (Accessed December 12, 19).
- Moore, M. (2009). Law "will force churches to employ gay staff". Available at: <https://www.telegraph.co.uk/news/religion/5357247/Law-will-force-churches-to-employ-gay-staff.html> (Accessed October 14, 20).
- National Union of Students (2014). Education beyond the Straight and Narrow LGBT students' experience in higher education. Available at: <https://www.nus.org.uk/global/lgbt-research.pdf> (Accessed December 07, 19).
- Parveen, N. (2019). Birmingham anti-LGBT school protesters had "misinterpreted" teachings, judge says. Available at: <https://www.theguardian.com/uk-news/2019/nov/26/birmingham-anti-lgbt-school-protests-judge-ban-permanent> (Accessed December 12, 19).
- Paul, J. P., Catania, J., Pollack, L., Moskowitz, J., Canchola, J., Mills, T., et al. (2011). Suicide attempts among gay and bisexual men: lifetime prevalence and antecedents. *Am. J. Public Health* 92 (8), 1338–1345. doi:10.2105/ajph.92.8.1338
- Petre, J. (2006). Gay equality law will undermine religious belief, claims bishop, the Telegraph. Available at: <https://www.telegraph.co.uk/news/uknews/1520174/Gay-equality-law-will-undermine-religious-belief-claims-bishop.html> (Accessed October 15, 20).
- Rivers, I. (2011). Homophobic bullying: research and theoretical perspectives. Available at: <https://www.oxfordscholarship.com/view/10.1093/acprof:oso/9780195160536.001.0001/acprof-9780195160536-chapter-007> (Accessed March 05, 20).
- Stonewall (2017). Higher education, Available at: <http://www.stonewall.org.uk/get-involved/education/homophobia-biphobia-and-transphobia-higher> (Accessed June 07, 17).
- Stonewall (2019). Stonewall response to increase in anti-LGBT hate crime figures. Available at: <https://www.stonewall.org.uk/about-us/media-statements/stonewall-response-increase-anti-lgbt-hate-crime-figures> (Accessed October 13, 20).
- Syracuse University (2004). Interrupting heteronormativity. Available at: <http://graduateschool.syr.edu/wp-content/uploads/2015/05/Interrupting-Heteronormativity-text.pdf> (Accessed December 07, 19).
- Taylor, A. (2020). Inclusive education – why LGBTQ+ resources for primary schools are vital. Available at: <https://www.teachwire.net/news/inclusive-education-why-lgbt-resources-for-primary-schools-are-vital> (Accessed October 12, 20).
- TUC (2018). Sexual harassment of LGBT people in the workplace A TUC report. Available at: https://www.tuc.org.uk/sites/default/files/LGBT_Sexual_Harassment_Report_0.pdf (Accessed December 02, 19).
- Twocock, P. (2019). At last, a generation of schoolchildren will grow up knowing it's OK to be LGBT. Available at: <https://www.theguardian.com/commentisfree/2019/sep/05/schools-teach-lgbt-september-2020-new-regulations> (Accessed March 05, 20).
- Universities and College Union (2019). Briefing on latest developments. Available at: <https://www.ucu.org.uk/equality> (Accessed: November 11, 19).

Conflict of Interest: The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright © 2021 Donnelly-Drummond. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.



Does Where You Live Matter? An Analysis of Intergenerational Transmission of Education Among Hispanic Americans

Sharron Xuanren Wang^{1*} and Arthur Sakamoto²

¹Department of Sociology and Criminal Justice, Delaware State University, Dover, DE, United States, ²Department of Sociology, Texas A&M University, College Station, TX, United States

OPEN ACCESS

Edited by:

Laia Becares,
University of Sussex, United Kingdom

Reviewed by:

Leonardo Souza Silveira,
Federal University of Minas Gerais,
Brazil
Andre Salata,
Pontifical Catholic University of Rio
Grande do Sul, Brazil

*Correspondence:

Sharron Xuanren Wang
xsgoodman@desu.edu

Specialty section:

This article was submitted to
Race and Ethnicity,
a section of the journal
Frontiers in Sociology

Received: 24 January 2021

Accepted: 22 July 2021

Published: 13 August 2021

Citation:

Wang SX and Sakamoto A (2021)
Does Where You Live Matter? An
Analysis of Intergenerational
Transmission of Education Among
Hispanic Americans.
Front. Sociol. 6:657980.
doi: 10.3389/fsoc.2021.657980

The intergenerational transmission of education from parents to children is an important indicator of societal inclusiveness and educational inequality. The present study uses restricted-access data from the National Longitudinal Survey of Youth 1997 (NLSY97) to investigate whether intergenerational educational transmission varies by county-level demographic and socioeconomic characteristics for Hispanic Americans. Based on parental birthplace, Hispanic Americans are grouped into 3 + generation (i.e., children of native-born Hispanic parents) and 2nd generation (i.e., children of foreign-born Hispanic parents). Men and women are analyzed separately. The results indicate that intergenerational educational mobility is higher if 3 + generation Hispanic men reside in areas with a larger Hispanic population, and if 2nd generation Hispanic men reside in areas with a larger college-educated population, during their adolescent years. County-level socioeconomic characteristics do not seem to affect intergenerational educational mobility of Hispanic women, non-Hispanic white men, or non-Hispanic white women. Theoretical and empirical implications of the findings are discussed.

Keywords: Hispanic Americans, immigration, intergenerational educational mobility, county-level characteristics, NLSY97

INTRODUCTION

Hispanic Americans now constitute the largest minority group in the United States. Understanding the sources of their socioeconomic status is important for providing a more accurate appraisal of racial/ethnic inequality. It is reported that on average Hispanic Americans have the lowest educational level among racial/ethnic groups in the U.S. For example, according to the U.S. Census, 58% of Asians have a bachelor's degree or higher, followed by non-Hispanic Whites (40%) and Blacks (26%). Only 19% of Hispanics have a bachelor's degree or higher (U.S. Census Bureau 2019). In addition, among Hispanics, foreign-born Hispanics demonstrate a lower educational level than native-born Hispanics (Perlmann, 2005). Twenty-percent of native-born Hispanics have a college degree compared to 12% of foreign-born Hispanics in 2015 (U.S. Census Bureau 2015).

As education has become all but vital for social mobility and long-term economic success (Hout, 2012), low educational attainment has become a barrier to the social and economic advancement of many Hispanic Americans (Perlmann, 2005). In general, education provides immigrant children with the opportunity to advance their economic success as adults as well as a means to foster

assimilation (Zhou, 1997; Baum and Ma, 2007; Hirschman, 2016; Wang and Sakamoto, 2021). Previous studies have suggested that educational attainment is heavily influenced by family background, including parental educational level, family economic resources, family structure, number of siblings, as well as parental involvement and styles (Becker and Nigel, 1986; Haveman and Wolfe, 1995). Many studies have also emphasized the importance of neighborhood quality as a factor affecting children's educational attainments (Borjas and George, 1992; Kremer, 1997; Patacchini and Zenou, 2011).

In regards to the educational attainments of children from immigrant families, prior studies have suggested that children of immigrants usually outperform first generation immigrants and children of native-born Americans (Kao and Tienda, 1995; Fuligni, 1997; Crosnoe, 2013). Net of parental socioeconomic status, children from immigrant families also tend perform better academically than children of US-born parents of the same racial, ethnic, or national background (Crosnoe, 2013). This phenomenon is often termed by social scientists as "immigrant optimism" and as one of the "immigrant paradoxes" (Kao and Tienda, 1995; Feliciano, 2005; Crosnoe, 2013). Evidence also indicates that intergenerational educational mobility is typically high among children of immigrants. Children of Latin American immigrants, however, seem more likely to be of a low socioeconomic status as they demonstrate a low level of upward mobility (Duncan and Trejo, 2011a) and therefore may be an exception to the "immigrant optimism" thesis. Despite the fact that the educational attainment among Hispanics has been rising steadily in recent years (Pew Research Center 2016), Hispanic Americans have lower-than-average educational attainment. This low educational attainment has stalled Hispanic Americans' socioeconomic advancement. Hispanics thus constitute an important case that needs further elucidation, especially with regard to understanding their parental transmission of educational attainment, immigration status, and community contexts.

Extensive prior research has suggested that educational attainments are not only determined by parental socioeconomic factors, but also by the socioeconomic and demographic characteristics of the places where they were raised (Borjas and George, 1992; Kremer, 1997; Kibria, 2003; Patacchini and Zenou, 2011). Although the magnitude of the effect of neighborhood characteristics on education is debatable (Solon, 1992; Katz et al., 2001), many researchers investigating immigration assimilation suggest that neighborhood quality is especially important for socioeconomic outcomes among children from immigrant families (Lee and Zhou, 2015; Tran, 2016). Social context is an important factor that influences assimilation (Tran, 2016), and contextual socioeconomic characteristics play an important role in immigrant assimilation and upward mobility. Even though many immigrants move to the U.S. with a low socioeconomic status, their children perform well academically. Scholars suggest that it might be the socialization from peers that contribute to their upward educational mobility (Lee and Zhou, 2015; Tran, 2016). Children's development is not only affected by what's happening "inside the family" (i.e., parental educational level and

involvement), but also what's happening "outside the family" (i.e., neighborhood quality, peer socialization) (Bisin and Verdier, 2000). Patacchini and Zenou (2011) found that neighborhood quality significantly affects educational attainment of children with low-educated parents. Thus, there might be an interactive relationship between parental education and contextual characteristics that influences native-born Hispanic American's educational attainment.

Intergenerational transmission of education from parents to children may vary according to the demographic and socioeconomic characteristics of the neighborhoods where the child was raised. There are three different ways in which contextual level characteristics can affect how the educational level of Hispanic American parents is transmitted to their children. First, Hispanic children who grew up in an area with a high level of socioeconomic capital might demonstrate higher educational attainment. If this is the case, then contextual capital would positively affect Hispanic children's education. Second, contextual level capital might decrease Hispanic children's educational attainment, especially if a child feels disadvantaged in the community and the environment hinders the child's development. Lastly, contextual level capital might not influence intergenerational transmission of education among Hispanics.

The present study uses restricted-access data from the National Longitudinal Survey of Youth 1997 (NLSY97) to investigate whether the educational transmission from parents to children varies by county level demographic and socioeconomic characteristics among native-born Hispanics. The Hispanic population demonstrates a high level of heterogeneity in terms of generational status. Each generation has a different socioeconomic circumstance and assimilation level (Wang and Sakamoto, 2021). Therefore, based on parental birthplace, the present study groups Hispanics into children of native-born Hispanic parents (i.e., 3 + generation Hispanics) and children of at least one foreign-born Hispanic parent (i.e., 2nd generation Hispanics). Native-born non-Hispanic whites (i.e., 3 + generation whites) are also included in the study as a reference group. This study contributes to the literature on Hispanics' educational mobility and assimilation in order to better understand the dynamics of immigrant assimilation, which may lead to better strategies for helping children of immigrants achieve greater success in their educational attainments and labor market outcomes.

BACKGROUND

Intergenerational Transmission of Education and Its Mediators

Educational mobility is a useful measure of intergenerational mobility, considering that it is a key aspect of human capital that affects a person's overall socioeconomic status (Mazumder, 2018). Intergenerational transmission of education is regarded as one of the central mechanisms underlying educational inequality and immigrant assimilation. One way to measure intergenerational educational mobility is to use parent-child

schooling association (Andrade and Thomsen, 2018). A high degree of intergenerational transmission of education indicates that parental educational background plays an essential role in children's education, whereas a low degree of transmission suggests that adult children's educational attainment is less affected by their parent's educational level. Using PSID data, Hertz et al. (2007) reported that the correlation coefficient of intergenerational educational mobility in the U.S. is around 0.46, which is lower than Latin American countries, but higher than Nordic countries (Hertz et al., 2007).

Researchers of economics (Borjas and George, 1992; Hertz et al., 2007; Patacchini and Zenou, 2011) and sociology (Feliciano and Lanuza, 2017; Andrade and Thomsen, 2018) have long been interested in how parental education affects their children's later educational outcomes. Studies have suggested that highly educated parents make more money and therefore are better able to support their children's education, equipping them with a high level of human capital (Chiu et al., 2016). In addition, educated parents might have a more effective parenting style than those who are not educated, and therefore children of educated parents achieve higher education (Okpala et al., 2001). Educational theories emphasize the importance of parental human capital. For example, research finds that family background accounts for up to 85% of the explainable variation in children's school attainment (Belzil and Hansen, 2003). In addition, Woessmann (2004) suggests that the explanatory power of parental background in models of educational outcomes decreases the effects of school and institutional effects. In other words, parental background is more important than school in determining a child's educational attainment. Therefore, parents' educational attainment and class status significantly affect the academic performance of their children (Coleman, 1968).

Immigrants who perform well in the first generation also tend to perform well in the second (Feliciano, 2005). For example, children of highly educated immigrant parents consistently perform better in school than the descendants of poorly educated parents (Hirschman and Falcon, 1985; Feliciano, 2005). Research has indicated that parental schooling is the most important factor in explaining educational differences across groups (Hirschman and Falcon, 1985; Feliciano, 2005).

Previous studies have suggested that factors influencing intergenerational transmission of education from parents to children might include family income, family structure, number of siblings, as well as parental involvement and parenting style (Okpala et al., 2001; Chiu et al., 2016; Egalite, 2016). Parental income provides the means for parents to transfer their human capital to their children (Hill and Duncan, 1987). The parental investments perspective emphasizes how the earnings capacity and other resources of parents affect the educational attainments and earnings capacity of children (Solon, 1992), in that the parental generation uses their resources to invest in their children's education, thus enhancing the earnings capacity of their children (Becker and Nigel, 1986; Kao and Tienda, 1995; Feliciano, 2005). Children from low-income backgrounds are more likely to have lower educational attainments (Duncan et al., 1998) as well as lower

household incomes or earnings in adulthood compared to those from high-income households.

Family socioeconomic background and structure also influence the education of children of immigrants (Portes and Hao, 2004). A prior study shows that children living in one-parent or other blended types of families tend to be disadvantaged in terms of socioeconomic status, education, and life chances (Hernandez, 1993). Among immigrants, research has suggested that a large number of children from immigrant families are raised by a single parent (Landale and Oropesa, 1995). This family disruption might limit 2nd generation children's access to parental investment even if their parents work hard and have a high level of human capital, such as education and income (Landale and Oropesa, 1995).

In addition, number of siblings has an unfavorable effect on one's educational attainment. Becker and colleagues (1973) have suggested that with given resources, parents can either have many children in which they invest little, or they can have few children allowing for greater investments per child and a higher "quality" upbringing. In other words, parents choose between quality and quantity of children. Nguyen and Getinet, 2003 have found that the presence of more than two siblings has a negative effect on children's educational attainments in the U.S. Bjorklund and Jantti (1999) have suggested that in Finland, Sweden, and the U.S., children from large families are likely to achieve less socioeconomically than children born in small families.

Previous studies have suggested that parenting behaviors also influence the transmission of education across generations (Capaldi and Clark, 1998; Crosnoe and Ansari, 2016). Students from immigrant families who perform well in school tend to be supported by their family (Fuligni, 1997). Based on measures of warmth and supervision in the parent-child interaction, psychologist Baumrind (1967) categorized four kinds of parenting styles, including authoritative (i.e., parents display high levels of both warmth and supervision), authoritarian (i.e., parents display high supervision but low warmth), permissive (i.e., parents display low supervision but high warmth), and disengaged (i.e., parents display both low warmth and low supervision). Research has indicated that an authoritative parenting style leads to favorable outcomes among their children (Maccoby and Martin, 1983). In contrast, a disengaged parenting style has negative consequences for children.

The Role of Contextual Level Characteristics: Social Landscape of Counties

Extensive research has emphasized the importance of neighborhood social capital and institutional resources on children's future outcomes (Sampson et al., 2002). Regarding children from immigrant families, Borjas and George (1992) has coined the term "ethnic capital" to illustrate how children of immigrants are influenced by the community in which they were raised. In his study, Borjas focuses on a set of variables involving ethnic skills of different groups to analyze intergenerational mobility across first generation immigrants and their children

(Borjas and George, 1992). He suggests that if a child grows up in a community with a high proportion of immigrants, the child is more likely to associate with immigrants, which may influence the skills, language, and educational attainments of the child (Borjas and George, 1992; Borjas and George 1995; Borjas, 2006). Borjas also finds that being raised as part of a low-skilled community may reduce intergenerational mobility (Borjas and George, 1992). However, Borjas (2006) suggests that children's continual exposure to a particular ethnic norm may pull the child toward that norm in the ethnic group, which may hinder the child's assimilation into mainstream society. Portes and MacLeod (1996) suggest that, in addition to parents, the strength of communities, including social networks and resources, are crucial factors influencing the attainments of immigrant children. Therefore, family background alone cannot explain the variation in educational outcomes among children from immigrant families (Rumbaut, 1994; Fuligni, 1997).

Several recent studies have emphasized the significance of contextual level characteristics in explaining group socioeconomic differences (Kasinitz, 2008; Tran, 2016). Group-level resources might substantially affect the assimilation of the second generation. Under certain circumstances, ethnic capital could benefit specific immigrant groups. Ogbu (1974), Ogbu (1991), Ogbu (2003) suggests that immigrant minorities might develop a positive view of shared heritage in the community, providing a sense of group pride, which in turn might stimulate the success of the next generation. Taken together, these family and community relations are regarded as "ethnicity as social capital" (Bankston et al., 1997).

For instance, Asian Americans on average have a higher socioeconomic status than the general population (Sakamoto et al., 2009; Kim and Sakamoto, 2010). Second generation Asian immigrants tend to achieve high mobility regardless of their parents' socioeconomic status in the U.S. For example, Vietnamese and Sikh immigrants have lower socioeconomic attainments after coming to the U.S., whereas their children often excel in school beyond what is expected, considering their background (Hsin and Xie, 2014). Evidence indicates that family and individual background factors cannot always fully explain second generation Asian Americans' high achievement (Goyette and Xie, 1999; Sakamoto et al., 2009). Some scholars use ethnic capital to help explain the achievements of second-generation Asians Americans. For example, Zhou and Bankston (1998) describe how co-ethnic social support and control promote positive incorporations of second generation Vietnamese into a low-income neighborhood in New Orleans. Lee and Zhou (2015) suggest that Asian American children benefit from the ethnic environment in which they are raised, as they witness the behavior and achievements of their peers who share the same national origin or pan-ethnic background regardless of their parents' socioeconomic status. In contrast, little is known about the role of contextual level capital in Hispanic Americans' educational attainments and assimilation.

Previous literature has suggested that both parental and contextual characteristics have important effects on educational attainments among children from immigrant families. The association between the two, however, has not

been examined. It is possible that parental education and contextual level characteristics not only have individual effects on children's educational attainment, but that these two factors also have a compounded association with a child's educational attainment. Findings of the present study may lead to insightful theoretical implications regarding the interaction between parental and contextual capital resources on assimilation and education of descendants of immigrants. In addition, the present study may have important implications for developing new policies geared toward promoting educational mobility among Hispanic/Latino youths. If county level characteristics is associated with increases in educational mobility, new policies should be put in place for improving neighborhood quality in order to increase upward mobility of disadvantaged Hispanic children.

It is not clear whether and how an interactive relationship between county level human capital and parental education exists. Intergenerational transmission of education from parents to children might not be affected by contextual environment. It may be hypothesized that Hispanic children from an area with a larger ethnic population and a higher level of socioeconomic resources may demonstrate greater intergenerational educational mobility. This would indicate a negative interaction between parental education and contextual variables. In this situation, contextual characteristics play a positive role in educational attainment. In addition, we hypothesize that this interactive relationship between contextual level characteristics and parental education exists only among Hispanic Americans, as this group is more vulnerable to environmental factors than 3 + generation non-Hispanic white Americans.

DATA AND METHODS

Data and Sample

The National Longitudinal Survey of Youth 1997 (NLSY97) is an ongoing nationally representative panel study of 8,984 youths aged 12–17 when first interviewed on December 31, 1996. The NLSY97 consists of a set of comprehensive surveys providing information about educational and labor market activities at multiple time points. The sample consists of a nationally representative sample of 6,748 youths and an over-sample of 2,236 Hispanic and non-Hispanic black youths. NLSY97 is designed to document the transition from school to work, and thus it collects detailed information about educational experiences over time among young adults. The content of the survey includes detailed information about youths' educational data and family background. Sources of data include the youths' parents and the youths themselves. In this study, I use surveys from Round 1 (1997), and from Round 11 (2007) to Round 16 (2013). Many variables in the study are derived from the youth questionnaires. Information on parental and household background is extracted from the Round 1 parent survey. It should be noted that over 80% of the parent surveys were answered by the biological mother of the youth.

Access to the NLSY97 Geocode data file is restricted from the public. It contains detailed information on county-level contextual characteristics of each NLSY resident. The variables indicating county-level demographic and socioeconomic characteristics in the Geocode data files are obtained based on the 1994 edition of the U.S. Census Bureau's *County and City Data Book*. Therefore, the restricted data contains important contextual level variables useful for the present study.

Target Population, Variables, and Measures

The target population of this study is Hispanic Americans. Hispanic Americans are grouped into children of native-born Hispanic parents (i.e., 3 + generation Hispanics) and children of at least one foreign-born parent (i.e., 2nd generation Hispanics). The parent survey provides information on parent's place of birth. Hispanic youth is coded as 2nd generation if at least one of the parents is foreign-born. Hispanic youth is coded as 3 + generation if both parents were born in the U.S. My sample yields 983 Hispanics from native-born families (i.e., 3 + generation Hispanics: $N = 983$) and 917 Hispanics from immigrant families (i.e., 2nd generation Hispanics: $N = 917$). It should be noted that we grouped 1.5 generation Hispanics into 2nd generation Hispanics. 1.5 generation Americans are persons who were born outside the U.S. but migrated to the U.S. as a minor. Previous immigration studies have suggested that 1.5 and 2nd generation Americans have similar upbringing and present a similar level of assimilation in the U.S. (Rumbaut, 1994). Thus, conventional studies often group 1.5 generation persons and 2nd generation into one group of children from immigrant families. In addition, I include children of native-born non-Hispanic whites (3 + generation whites) as a reference group ($N = 4,184$).

Dependent Variable. The dependent variable of interest is years of schooling by age 28. It is a continuous variable. Age 28 is used to determine education level, because by 28 most people should already have finished their education, including persons working on a PhD or a professional degree. Using years of education to measure educational attainment also has several advantages, including its wide availability, unambiguity, and remaining stable and fixed after early adulthood (Hertz et al., 2007). I use surveys from Round 11 to Round 16 (from years 2007–2013) to extract years of schooling at age 28 for respondents. At Round 16, the youngest respondents in the sample have reached age 28.

Key Independent Variables. The key independent variables include father and mother's years of schooling. In the parent survey, the responding parents were asked to provide information about their years of schooling, as well as information about youth's other biological parent, and residential father/mother. If biological parent's information on education is missing, we use residential parent's years of schooling.

Contextual Variables. We use four demographic and socioeconomic variables from the restricted-access data file

as proxies of contextual quality. All these variables are measured at the county level in 1997. These include percentage of ethnic population, percentage of college educated population, natural logarithm of median household income adjusted to 2010 dollars based on CPI-R-U, and percentage of families below poverty level. It should be noted that for Hispanics, ethnic population is obtained by using Hispanic population in county divided by total population in county; and for non-Hispanic whites, ethnic population is obtained by using non-Hispanic white population in county divided by total population in county. All contextual level variables are treated as continuous variables.

Control Variables. We use factors influencing intergenerational transmission of education as control variables. Natural logarithm of annual household income in 1996 is included. We adjusted parental household income based on CPI-R-U to 2010 dollars. Annual household income below \$1,000 is recoded to \$1,000 to avoid biases produced by outliers. We have also included number of siblings in the household and mother's age when she had the child. These variables are treated as continuous variables. Furthermore, we have included variables indicating whether the child lived with both biological parents to represent family structure, in addition to whether the parents participated in teacher-parent meetings and whether parents volunteered in schools as proxies for parental involvement. These variables are coded as dichotomous variables (yes = 1/no = 0). In addition, based on Baumrind's parenting styles on warmth and supervision in the parent-child interaction, four dichotomous variables of parenting styles (authoritative, authoritarian, permissive, and disengaged) are included (yes = 1/no = 0). We also have two dichotomous variables indicating region, including metropolitan area and South in the study, as research has suggested that region of residence could affect one's later educational attainment (Scott, 2009). For example, children from the South are more likely to have a lower educational attainment than children who grew up in the North. In addition, children who are brought up in metropolitan areas are more likely to have a higher level of education than children from rural areas. Lastly, we include a set of variables indicating school quality when youths were teenagers. Studies suggest that school quality is one of the important factors affecting one's educational outcomes. This is especially true for immigrant families where parents have limited U.S.- specific knowledge to help with their children's schooling (Crosnoe, 2004). These school quality variables include whether they feel safe at school, whether teachers are engaged, and whether students disrupt the learning process (yes = 1/no = 0).

It is worth noting that there are many missing values in the dataset due to the nature of panel surveys. For the dependent variable of education, we use listwise deletion to deal with missing values. For the independent variables of parental schooling and family income, multiple imputation is used (Royston, 2004).

Methods

As a standard intergenerational mobility model, we apply the OLS regression model for estimating correlations between educational attainments of parents and children (Solon, 1992; Zimmerman, 1992):

$$Y = \alpha_1 + \beta_1 * PE + \beta_2 * CC + \beta_3 * X + \epsilon \quad (1)$$

$$Y = \alpha_2 + \beta_4 * PE + \beta_5 * CC + \beta_6 * (PE * CC) + \beta_7 * X + \epsilon_i \quad (2)$$

where Y indicates child's years of schooling; PE indicates parent's education (i.e., father's years of education and mother's years of education); CC indicates a vector of county-level characteristics (i.e., percentage of ethnic population, percentage of college-educated population, natural logarithm of median household income, and percentage of families below poverty level); X indicates a vector of control variables (i.e., natural logarithm of annual family income, family structure, number of siblings, parenting styles, region, and quality of school); and ϵ indicates random errors. The intergenerational transmissions of father's education and of mother's education are analyzed separately. In addition, each of the county-level demographic and socioeconomic characteristics (percentage of ethnic population, percentage of college-educated population, natural logarithm of median household income, and percentage of families below poverty level) are also analyzed separately in the models.

Prior literature has suggested that girls and boys of immigrant backgrounds undergo different assimilation processes and educational outcomes due to differences in institutional barriers (Gillborn and Mirza, 2000; Lopez, 2003). Therefore, all the analyses are conducted separately for men and women. The analyses are weighted using sample weights. The Bureau of Labor Statistics also generated custom weights for multiple samples based upon requests. In model 1, β_1 represents the parent-child school correlation coefficient net of the controls. The larger the value of β_1 , the lower the educational mobility and the greater the child educational outcomes depending on parental education. In model 2, the coefficient of the interaction terms (β_6) is the parameter of interest because a significant estimate of β_6 indicates significant heterogeneity in intergenerational mobility based on level of county-level characteristics. This approach is consistent with prior research on intergenerational mobility (Huang, 2013).¹ If β_6 is statistically not significant, it indicates intergenerational transmission of education from parents to children is not affected by contextual environment. A positive sign of β_6 indicates that county level demographics or socioeconomic characteristics increase intergenerational transmission of education and a negative sign indicates the opposite.

¹One might argue that multilevel modeling is a more effective approach. However, the aim of this study was to investigate whether the relationship between children's years of schooling and parental years of schooling depended on the characteristics of the county in which the child was raised. Therefore, cross-level interaction in OLS models is a more appropriate approach. Future studies focusing on testing whether parental education and contextual level characteristics were predictive of children's schooling might make use of multilevel modeling.

RESULTS

Sample Characteristics

Sample characteristics by race, immigration generation, and gender are reported in **Table 1**. Child's educational attainment is measured at age 28 for all respondents. In general, women have acquired more years of schooling by age 28 than men. Native non-Hispanic whites have more years of schooling than Hispanics. On average, NH-white women have the highest educational attainment (14.26 years) among all the demographic groups. 2nd generation Hispanic men and women have more years of schooling than 3 + generation Hispanic men and women, respectively. 3 + generation Hispanic men have the lowest educational level among all the groups. The results are consistent with prior findings indicating that 3 + generation Hispanic Americans have shown downward educational mobility (Duncan and Trejo, 2011b; Terriquez, 2014).

Compared to parents' schooling, children's schooling is higher among all groups than their father and mother's schooling, indicating an intergenerational improvement in education among all groups. Overall, parental socioeconomic characteristics of NH-whites are higher than Hispanics (i.e., parents' schooling and family income).

Parent-Child Correlation of Schooling

Table 2 presents father-child and mother-child correlation coefficients of schooling across demographic groups while controlling for the covariates including natural logarithm of family variables, school variables, geographic variables, and ethnic capital variables. All the coefficients of parents' schooling on child's schooling are statistically significant at a $p < 0.001$ level, indicating a positive association between child's and parent's schooling when other observed factors are controlled for. Across all demographic groups in our study, children have reached a higher level of educational attainment than their parents. Specifically, the overall correlation coefficients of parent-child schooling among NH-whites ranges from 0.23 to 0.33 (father-son: 0.31; father-daughter: 0.23; mother-son: 0.28; mother-daughter: 0.33). In addition, the correlation coefficients for second generation Hispanics range from 0.17 to 0.23 (father-son: 0.23; father-daughter: 0.18; mother-son: 0.21; mother-daughter: 0.18), while the correlation coefficients for 3 + generation Hispanics range from 0.19 to 0.27 (father-son: 0.22; father-daughter: 0.20; mother-son: 0.27; mother-daughter: 0.19).

Multivariate Regression Results

Table 3 presents regression coefficients of parental education and their interaction terms with contextual characteristics while controlling for the covariates (see Model 2). The coefficients for the interaction terms among 3 + generation NH-whites are not statistically significant, which indicates that the influence of father and mother's educational levels on child's education does not vary based on environmental ethnic capital for non-Hispanic white men and women. For 3 + generation Hispanic men, the coefficient of the interaction term between percentage of ethnic population and father's schooling is statistically significant

TABLE 1 | Sample descriptive statistics.

	NH-Whites_3+		Hispanics_3+		Hispanic_2nd	
	Men	Women	Men	Women	Men	Women
Dependent Variable						
Average years of Schooling by age 28	13.60	14.26	12.53	12.93	12.58	13.04
Parental and Family Variables (1997)						
Average father's schooling (Years)	13.39	13.31	11.02	11.24	8.73	9.00
Average mother's schooling (Years)	13.30	13.28	11.24	11.18	9.06	8.98
Average in-family income	11.05	11.03	10.42	10.43	10.15	10.17
Average mother's age when child was born	26.14	25.96	24.70	25.27	25.75	25.34
Average no. of siblings	1.24	1.25	1.61	1.54	1.81	1.89
Lived with both parents (%)	59.13	56.65	45.63	43.98	64.00	59.31
Parenting styles (%)						
Authoritative	41.95	38.63	42.72	38.72	44.70	39.35
Authoritarian	10.58	12.74	9.39	13.27	12.19	15.05
Permissive	37.45	37.83	36.21	34.07	33.18	31.40
Disengaged	10.02	10.80	11.69	13.94	9.93	14.19
(Total)	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)
Parents volunteered in school (%)	49.26	48.91	31.18	32.82	33.11	30.62
Participate Teacher-Parent meetings (%)	59.73	58.23	44.49	44.2	70.89	69.16
School Environment (1997)						
Feeling safe at school (%)	88.93	89.53	87.26	85.56	86.44	82.44
Engaging teachers (%)	86.62	85.86	88.78	85.34	88.89	86.72
Students disrupt learning (%)	58.58	60.91	62.74	63.46	65.78	61.67
Geographical Variables (1997)						
Metro (%)	75.42	75.35	91.83	91.68	98.89	97.86
South (%)	28.74	32.69	31.94	27.79	28.67	25.91
County-level Characteristics (1997)						
% Ethnic Group	86.02	85.86	27.82	26.15	27.33	26.97
% College Educated	19.09	19.06	20.84	20.95	22.1	21.99
Median Household Income (\$)	35,562.98	35,540.76	34,579.48	35,456.45	37,617.21	37,181.53
% Family below poverty	9.16	9.18	13.17	12.14	11.79	11.94
N	2,168	2,016	526	457	450	467

(column 3: $\beta_6 = -0.4231$, $p < 0.05$). This indicates that the percentage of Hispanics in the county where the child resided when he/she was a teenager has a negative effect on father-son's schooling transmission. In other words, educational attainment would be higher if a 3 + generation Hispanic male teenager resides in a place where the percentage of Hispanics is higher. For 2nd generation Hispanic men, the coefficient of the interaction between percentage of the college-educated population and parents' schoolings are statistically significant (column 5: $\beta_6 \text{ of father} = -0.0079$, $p < 0.05$; $\beta_6 \text{ of mother} = -0.0072$, $p < 0.05$). The results suggest that the transmission of schooling from father and from mother vary according to the percentage of college-

educated persons in the county where the child resided as a teenager. Educational attainment would be higher if the son of Hispanic immigrants resides in a county where the college-educated population is larger. In addition, percentage of families below poverty level and median household income do not have a significant relationship with parental educational level across groups. Hispanic women of 3+ and 2nd generations do not show significant coefficients of interaction terms.

To illustrate the estimated effects of OLS regression with interactions, we have plotted how estimated years of schooling of 3 + generation and 2nd generation Hispanic men would be expected to vary based on the percentage of the Hispanic

TABLE 2 | Correlation coefficients of parent-child schooling.

	NH-Whites_3+		Hispanics_3+		Hispanic_2nd	
	Men (1)	Women (2)	Men (3)	Women (4)	Men (5)	Women (6)
Panel A: Father's Schooling	0.3080***	0.2279***	0.2221***	0.2011***	0.2275***	0.1782***
Controls	Y	Y	Y	Y	Y	Y
Intercept	-27.9450***	-18.7090*	-37.4043+	-22.2189	16.3772	-2.5334
R2	0.3234	0.2793	0.2343	0.2627	0.2482	0.2644
Panel B: Mother's Schooling	0.2816***	0.3322***	0.2721***	0.1917***	0.2129***	0.1820***
Controls	Y	Y	Y	Y	Y	Y
Intercept	-27.9396*	-17.8034*	-37.773	-20.2924	11.7153	4.7597
R2	0.3046	0.3062	0.2459	0.2713	0.2463	0.2687

Note: * $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$.

The control variables in the models include: the natural logarithm of annual family income, family structure, number of siblings, parenting styles, region, and quality of school. The coefficients for the control variables and fit statistics are available upon request.

TABLE 3 | OLS Regression results of schooling years.

	NH-Whites_3+		Hispanics_3+		Hispanic_2nd	
	Men (1)	Women (2)	Men (3)	Women (4)	Men (5)	Women (6)
FATHER's Schooling						
Panel A: % Ethnic population						
Father's schooling	0.3178*	0.1597	0.3028***	0.2397**	0.2852***	0.2311***
FS* % ethnic population	-0.0147	0.0813	-0.4321*	-0.2004	-0.2957	-0.2339
Panel B: % college educated population						
Father's schooling	0.3636***	0.2985***	0.2191*	0.0748	0.4068***	0.0166
FS* % college-educated population	-0.003	-0.0033	-0.0004	0.006	-0.0079*	0.0072
Panel C: Ln(median HH income)						
Father's schooling	1.2998	1.5355	2.1638	-0.3072	0.7439	-0.6931
FS* Ln (median HH income)	-0.1919	-0.121	-0.1812	0.0471	-0.0474	0.0802
Panel D: % family below poverty						
Father's schooling	0.2732***	0.2063***	0.1709*	0.2220	0.2415***	0.2164**
FS* % family below poverty	0.0035	0.0021	0.0031	-0.0028	-0.0015	-0.0037
MOTHER's Schooling						
Panel A: % Ethnic population						
Mother's schooling	0.1633	0.1971	0.2737***	0.1291*	0.2505***	0.1546*
MS* % ethnic population	0.137	0.1595	-0.0537	0.3042	-0.1901	0.0283
Panel B: % college educated population						
Mother's schooling	0.3335***	0.4154***	0.1371	0.2462*	0.3854***	0.0117
MS* % college educated population	-0.0028	-0.0042	0.0062	-0.0021	-0.0072*	0.0074
Panel C: Ln(median HH income)						
Mother's schooling	1.5247	1.4908	0.3228	2.5472	0.1449	-0.3822
MS* Ln (median HH income)	-0.1152	-0.1074	-0.0054	-0.2158	-0.1138	0.0516
Panel D: % family below poverty						
Mother's schooling	0.2480***	0.3327***	0.2237**	0.0911	0.2231**	0.1533
MS* % family below poverty	0.0035	-0.0002	0.0030	0.0109	-0.0016	0.0026

Note: *p < 0.05 **p < 0.01 ***p < 0.001.

The control variables in the models include: the natural logarithm of annual family income, family structure, number of siblings, parenting styles, region, and quality of school. The coefficients for the control variables and fit statistics are available upon request.

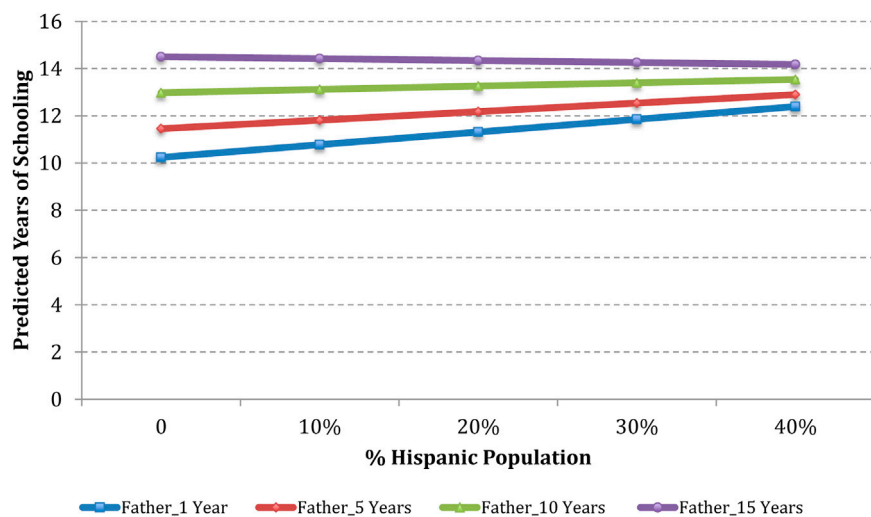


FIGURE 1 | Predicted years of schooling of 3 + generation Hispanic men as a function of the level of father's schooling and percentage of the Hispanic population in the county.

population and the percentage of the college-educated population in the county. Estimates are shown for counties with a 0, 10, 20, 30, and 40 percent Hispanic population and college-educated population, combined with parent's years of schooling of 1, 5, 10, and 15 years.

Based on the analyses in **Table 3** column (3), **Figure 1** presents predicted values of schooling years for a typical 3 + generation Hispanic man based on the percentage of the Hispanic population in the county. Using median values of control variables, a typical case is defined as a 3 + generation Hispanic

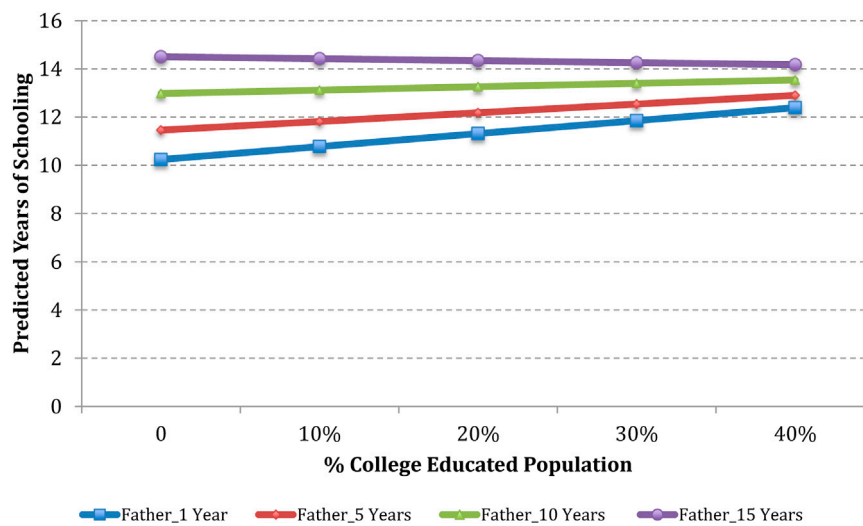


FIGURE 2 | Predicted years of schooling of 2nd generation Hispanic men as a function of the level of father's schooling and percentage of the college-educated population in the county.

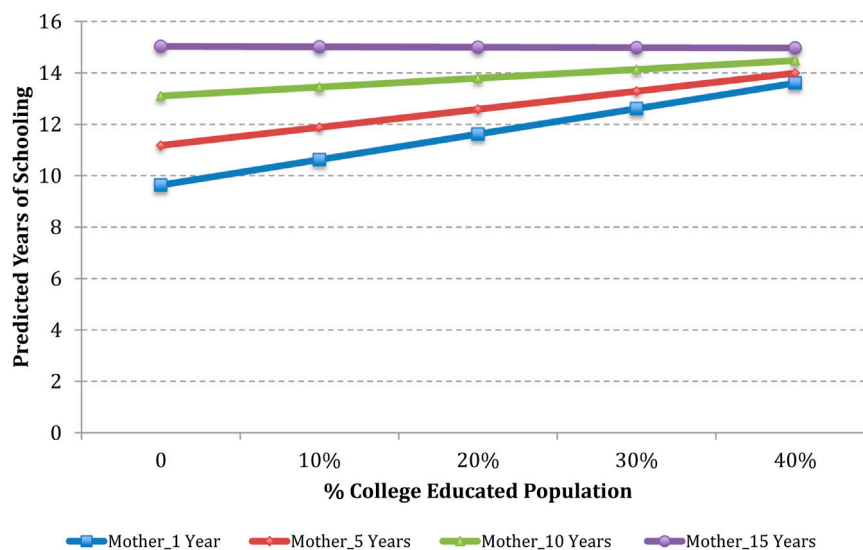


FIGURE 3 | Predicted years of schooling of 2nd generation Hispanic men as a function of the level of mother's schooling and percentage of the college-educated population in the county.

man who has 1 sibling; whose mother gave birth to him when she was 25 years old; whose family income in 1996 was \$41,513 after adjusting for inflation in 2010; who grew up with both biological parents in a non-South metropolitan area; and whose parents were authoritative, attended Teacher-Parent meetings, and volunteered at schools. In addition, this child felt safe at school, teachers were engaged in his education, and his education was not disrupted by other students in school.

Plots in **Figure 1** reveal that if the father has 10 or 15 years of schooling, there is no discernible variation in estimated years of schooling for the child when there is an increase in the Hispanic

population. However, if the father has 1 year of schooling, increasing the percentage of the Hispanic population in the county from 0 to 40 yields an estimated years of schooling increase from 10.2 to 12.4 years among 3 + generation Hispanic men. In addition, if the father has 5 years of schooling, increasing the percentage of the Hispanic population in the county from 0 to 40 yields an estimated years of schooling increase from 11.5 to 13 years among 3 + generation Hispanic men.

Based on the analyses in **Table 3** column (5), **Figure 2** and **Figure 3** present predicted values of schooling years for a typical

2nd generation Hispanic man based on the percentage of the college-educated population in the county. Using median values of the control variables, a typical case is defined as a 2nd generation Hispanic man who has 1 sibling; whose mother gave birth to him when she was 25.5 years old; whose family income in 1996 was \$30,443 after adjusting for inflation in 2010; who grew up with both biological parents in a non-South metropolitan area; and whose parents were authoritative, attended Teacher-Parent meetings, and volunteered at school. In addition, this child felt safe at school, teachers were engaged in his education, and his education was not disrupted by other students in school.

Data presented in **Figure 2** indicate that for a typical 2nd generation Hispanic man, an increase in the college-educated population from 0 to 40 percent yields an increase in estimated years of schooling from 10.2 to 12.3 years if the father has an education of 1 year; an increase in estimated years of schooling from 11.5 to 13 years if the father has an education of 5 years; and an increase in estimated years of schooling from 13 to 13.5 if the father has an education of 10 years. However, there is no distinct variation of estimated years of schooling based on the percentage of college-educated population if the father has an education of 15 years.

Figure 3 presents estimated years of schooling of typical 2nd generation Hispanic men based on Mother's years of schooling and percentage of the college-educated population in the county. An increase in the college-educated population from 0 to 40 percent yields an increase in estimated years of schooling of typical 2nd generation Hispanic men from 9.6 to 13.6 years if the mother has an education of 1 year; an increase in estimated years of schooling from 11.1 to 14 years if the mother has an education of 5 years; and an increase in estimated years of schooling from 13 to 14.5 if the mother has an education of 10 years. However, there is no distinct variation of estimated years of schooling based on the percentage of the college-educated population if the mother has an education of 15 years.

DISCUSSION AND CONCLUSION

Hispanic Americans are an important demographic group with unique challenges. The present study examines whether the educational transmission from parents to children varies by county level demographic and socioeconomic characteristics among Hispanic children of immigrants and Hispanic children of native-born Americans. Men and women are analyzed separately. The benchmark population, 3 + generation non-Hispanic whites, is also included in the analysis as a reference group. While several studies have examined educational attainments among Hispanics (Wojtkiewicz and Donato, 1995; Chiswick and Noyna, 2004) and the importance of parental schooling in explaining group educational disparities (Kao and Tienda, 1995; Feliciano, 2005), little research has investigated how intergenerational transmission of education among Hispanics is affected by the social and demographic characteristics of the place where Hispanic children were

raised. This topic is important given the well-documented significance of parental education and contextual characteristics in affecting the socioeconomic attainments of descendants of immigrants.

Our results indicate that contextual demographic socioeconomic characteristics do not seem to affect intergenerational transmission of education among NH-white men and women. Rather, their educational attainments seem to be affected largely by their parental educational level (see coefficients from **Table 2** and **Table 3**). One possible interpretation of this result is that, among NH-whites, environmental characteristics, such as racial composition and poverty level, do not affect the transmission of parental human capital to children very much. However, contextual level characteristics seem to play a role in intergenerational transmission among Hispanic children. Our results confirm the importance of the interplay between contextual level characteristics and parental education on children's attainment. Not all contextual level social or demographic characteristics have a significant compounding effect when paired with parental education. For example, regarding 3 + generation Hispanics, our findings suggest that having a higher percentage of Hispanic persons in the county where the Hispanic child resided as an adolescent decreases intergenerational persistence of education between father and son. In other words, educational attainment would be higher for 3 + Hispanic men residing in a county with a larger Hispanic population with their father's education being constant. These demographic characteristics, however, do not affect 3 + generation Hispanic women. This result is not surprising given that Hispanic youths living in a high-density Hispanic community might benefit from sociocultural advantages, and these advantages might outweigh the disadvantages of the socioeconomic characteristics of the neighborhood (Eschbach et al., 2004). For example, minority children raised in an area with a higher percentage of minorities might face less discrimination and prejudice in public institutions, such as school. In addition, if teacher and minority students share a similar racial/ethnic background, students usually perform better in school (Dee, 2005; Bates and Glick, 2013) since a demographically similar teacher raises a student's academic motivation and expectations (Steele, 1997). It is possible that 3 + generation men raised in areas with a higher percentage of Hispanics are more comfortable with the environment, are less likely to be stereotyped, experience less marginalization, and also have greater support and larger social networks. All these factors positively affect Hispanic men's education.

However, it is surprising to see that the percentage of Hispanics in the county does not affect intergenerational educational mobility among Hispanic youths from immigrant families, as previous work has suggested that ethnic population in the neighborhood affects socioeconomic outcomes of children from immigrant families (Borjas and George, 1992). Rather, results demonstrate that the percentage of college-educated people in the county where the 2nd-generation Hispanic youth grew up has a negative effect on father-son and mother-son transmission of schooling. This suggests that a higher percentage

of college-educated people in the county increases educational attainment among 2nd generation Hispanic men. Previous research has investigated the effects of residence characteristics and neighborhood quality on educational outcomes of children and youths (Patacchini and Zenou, 2011). However, these prior studies have focused primarily on the economic conditions of the neighborhood, such as poverty level and income level (Massey, 1996). Our findings regarding second-generation Hispanics provide novel insights into how educational level of the community may positively affect immigrant youths' outcomes.

One limitation of this study is that the contextual level variables are measured at the county level, which might involve relatively larger units compared to census blocks. This limitation is in part due to data availability in the research area of intergenerational mobility (Sakamoto and Wang, 2020). Smaller geographic units, if available, may have potentially resulted in less bias for examining whether intergenerational educational mobility varies based on contextual level characteristics. However, the benefit to using county level variables, is that they have the capacity to yield results with greater policy implications. As many researchers have suggested, policies established at the county level show greater efficacy in the U.S. (Hoyman et al., 2016). In addition, the county level is small enough for many people to have some awareness of their co-residents in contrast to an entire metropolitan area or state.

Overall, the present findings have significant implications for public policy. As the Hispanic population continues to grow, issues surrounding socioeconomic status and assimilation level of Hispanic immigrants and their descendants have attracted public attention. Considering that Hispanic immigrants in general have lower educational and economic attainments compared to other groups, it is important for policymakers to provide Hispanic children with the means for upward mobility in order to increase equality. Children of Hispanics are usually disadvantaged in terms of parental socioeconomic support. However, my research suggests that children of Hispanics can benefit from certain environmental factors. If Hispanic children reside in an

area with a large Hispanic population and a large college-educated population, they will most likely have higher educational mobility. Therefore, policymakers could focus on improving the socioeconomic quality of neighborhoods in order to provide 2nd-generation Hispanic children with an equal opportunity to succeed in their educational endeavors.

In terms of scientific implications, the present findings build on previous research which has emphasized the importance of parents' human capital and ethnic environment in determining the educational attainments of children from immigrant families. The present study also provides novel insights regarding the interactive relationship between parental capital and ethnic environment and how this interaction influences different population groups categorized by race, immigration generation, and gender. Future research should be conducted to determine whether parental capital and contextual environment also interact to influence the educational attainments of other immigrant groups, such as Asian Americans. In addition, future research could investigate why intergenerational educational transmission is resilient against environmental factors among 2nd and 3 + generation Hispanic women.

DATA AVAILABILITY STATEMENT

Some variables in the study are restricted. For those interested in the restricted NLSY data, please visit <https://www.bls.gov/nls/geocodeapp.htm>.

AUTHOR CONTRIBUTIONS

SW designed the study, analyzed the data, and wrote the manuscript. AS provided guidance on the theoretical and methodological development, as well as the writing of the manuscript.

REFERENCES

- Andrade, S. B., and Thomsen, J.-P. (2018). Intergenerational Educational Mobility in Denmark and the United States. *Sociological Sci.* 5, 93–113. doi:10.15195/v5.a5
- Bankston, III, Caldas, S. J., Zhou, M., and Zhou, M. (1997). The Academic Achievement of Vietnamese American Students: Ethnicity as Social Capital. *Sociological Focus* 30 (1), 1–16. doi:10.1080/00380237.1997.10570679
- Bates, L. A., and Glick, J. E. (2013). Does it Matter if Teachers and Schools Match the Student? Racial and Ethnic Disparities in Problem Behaviors. *Soc. Sci. Res.* 42 (5), 1180–1190. doi:10.1016/j.ssresearch.2013.04.005
- Baum, S., and Ma, J. (2007). *Education Pays: The Benefits of Higher Education for Individuals and Society*. Washington, DC: College Board.
- Baumrind, D. (1967). Child Care Practices Antecedent Three Patterns of Preschool Behavior. *Genet. Psychol. Monogr.* 75, 43–88. doi:10.1037/e535042008-005
- Becker, G. S., and Tomes, N. (1986). Human Capital and the Rise and Fall of Families. *J. Labor Econ.* 4 (3), S1–S39. doi:10.1086/298118
- Belzil, C., and Hansen, J. R. (2003). Structural Estimates of the Intergenerational Education Correlation. *J. Appl. Econ.* 18 (6), 679–696. doi:10.1002/jae.716
- Bisin, A., and Verdier, T. (2000). Beyond the Melting Pot?: Cultural Transmission, Marriage, and the Evolution of Ethnic and Religious Traits. *Q. J. Econ.* 115 (3), 955–988. doi:10.1162/003355300554953
- Björklund, A., and Jäntti, M. (1999). *Intergenerational Mobility of Socio-Economic Status in Comparative Perspective*. Norway: Social Policy Research Centre University of New South Wales.
- Borjas, G. J. (2006). *Making it in America: Social Mobility in the Immigrant Population*. Cambridge, MA: National Bureau of Economic Research. No. w12088. doi:10.3386/w12088
- Borjas, G. J., and George, J. (1995). Assimilation and Changes in Cohort Quality Revisited: What Happened to Immigrant Earnings in the 1980s? *J. Labor Econ.* 13 (2), 201–245. doi:10.1086/298373
- Borjas, G. J., and George, J. (1992). Ethnic Capital and Intergenerational Mobility. *Q. J. Econ.* 107 (1), 123–150. doi:10.2307/2118325
- Capaldi, D. M., and Clark, S. (1998). Prospective Family Predictors of Aggression toward Female Partners for At-Risk Young Men. *Develop. Psychol.* 34 (6), 1175–1188. doi:10.1037/0012-1649.34.6.1175
- Chiswick, B. R., and DebBurman, N. (2004). Educational Attainment: Analysis by Immigrant Generation. *Econ. Educ. Rev.* 23 (4), 361–379. doi:10.1016/j.econedurev.2003.09.002

- Chiu, J., Economos, J., Craig, M., Raicovi, V., Howell, C., Morote, E-S., et al. (2016). Which Matters Most? Perceptions of Family Income or Parental Education on Academic Achievement. *N.Y.J. Student Aff.* 16 (2), 3. doi:10.2514/6.2016-4334
- Coleman, J. S. (1968). Equality of Educational Opportunity. *Equity Excell. Educ.* 6 (5), 19–28. doi:10.1080/0020486680060504
- Crosnoe, R. (2013). *Preparing the Children of Immigrants for Early Academic Success*. Washington, DC: Migration Policy Institute.
- Crosnoe, R., and Ansari, A. (2016). Family Socioeconomic Status, Immigration, and Children's Transitions into School. *Fam. Relat.* 65 (1), 73–84. doi:10.1111/fare.12171
- Crosnoe, R. (2004). Social Capital and the Interplay of Families and Schools. *J. Marriage Fam.* 66 (2), 267–280. doi:10.1111/j.1741-3737.2004.00019.x
- Dee, T. S. (2005). A Teacher like Me: Does Race, Ethnicity, or Gender Matter? *Am. Econ. Rev.* 95 (2), 158–165. doi:10.1257/000282805774670446
- Duncan, B., and Trejo, S. J. (2011a). Intermarriage and the Intergenerational Transmission of Ethnic Identity and Human Capital for Mexican Americans. *J. Labor Econ.* 29 (2), 195–227. doi:10.1086/658088
- Duncan, B., and Trejo, S. J. (2011b). “Who Remains Mexican? Selective Ethnic Attrition and the Intergenerational Progress of Mexican Americans.” in *Latinos and the Economy* (New York, NY: Springer), 285–320. doi:10.1007/978-1-4419-6682-7_14
- Duncan, G. J., Yeung, W. J., Brooks-Gunn, J., and Smith, J. R. (1998). How Much Does Childhood Poverty Affect the Life Chances of Children? *Am. Sociological Rev.* 63 (3), 406–423. doi:10.2307/2657556
- Egalite, A. J. (2016). How Family Background Influences Student Achievement. *Education Next* 16 (2), 70–78. doi:10.1177/0891242416659135
- Eschbach, K., Ostir, G. V., Patel, K. V., Markides, K. S., and Goodwin, J. S. (2004). Neighborhood Context and Mortality Among Older Mexican Americans: Is There a Barrio Advantage? *Am. J. Public Health* 94 (10), 1807–1812. doi:10.2105/ajph.94.10.1807
- Feliciano, C. (2005). *Unequal Origins: Immigrant Selection and the Education of the Second Generation*. El Paso, TX: Lfb Scholarly Pub Llc.
- Feliciano, C., and Lanuza, Y. R. (2017). An Immigrant Paradox? Contextual Attainment and Intergenerational Educational Mobility. *Am. Sociol. Rev.* 82 (1), 211–241.
- Fuligni, A. J. (1997). The Academic Achievement of Adolescents from Immigrant Families: The Roles of Family Background, Attitudes, and Behavior. *Child. Develop.* 68 (2), 351–363. doi:10.2307/1131854
- Gillborn, D., and Mirza, H. S. (2000). *Educational Inequality: Mapping Race, Class and Gender. A Synthesis of Research Evidence*. United Kingdom: Office for Standards in Education.
- Goyette, K., and Xie, Y. (1999). Educational Expectations of Asian American Youths: Determinants and Ethnic Differences. *Sociol. Educ.* 72, 22–36. doi:10.2307/2673184
- Haveman, R., and Wolfe, B. (1995). The Determinants of Children's Attainments: A Review of Methods and Findings. *J. Econ. Lit.* 33 (4), 1829–1878.
- Hernandez, D. J. (1993). *America's Children: Resources from Family, Government, and the Economy*. New York: Russell Sage Foundation.
- Hertz, T., Jayasundera, T., Piraino, P., Selcuk, S., Smith, N., and Verashchagina, A. (2007). The Inheritance of Educational Inequality: International Comparisons and Fifty-Year Trends. *BE J. Econ. Anal. Pol.* 7 (2), 1775. doi:10.2202/1935-1682.1775
- Hill, M. S., and Duncan, G. J. (1987). Parental Family Income and the Socioeconomic Attainment of Children. *Soc. Sci. Res.* 16 (1), 39–73. doi:10.1016/0049-089x(87)90018-4
- Hirschman, C., and Falcon, L. (1985). The Educational Attainment of Religious Ethnic Groups in the United States. *Res. Sociol. Educ. Socialization* 5, 83–120.
- Hirschman, C. (2016). *From High School to College*. New York: Russell Sage Foundation.
- Hout, M. (2012). Social and Economic Returns to College Education in the United States. *Annu. Rev. Sociol.* 38, 379–400. doi:10.1146/annurev.soc.012809.102503
- Hoymann, M., McCall, J., Paarlberg, L., and Brennan, J. (2016). Considering the Role of Social Capital for Economic Development Outcomes in US Counties. *Econ. Develop. Q.* 30 (4), 342–357. doi:10.1177/0891242416659135
- Hsin, A., and Xie, Y. (2014). Explaining Asian Americans' Academic Advantage over Whites. *Proc. Natl. Acad. Sci.* 111 (23), 8416–8421. doi:10.1073/pnas.1406402111
- Huang, J. (2013). Intergenerational Transmission of Educational Attainment: The Role of Household Assets. *Econ. Educ. Rev.* 33, 112–123. doi:10.1016/j.econedurev.2012.09.013
- Kao, G., and Tienda, M. (1995). Optimism and Achievement: The Educational Performance of Immigrant Youth. *Soc. Sci. Q.* 76 (1), 1–19.
- Kasinitz, P. (2008). Becoming American, Becoming Minority, Getting Ahead: The Role of Racial and Ethnic Status in the Upward Mobility of the Children of Immigrants. *Ann. Am. Acad. Pol. Soc. Sci.* 620 (1), 253–269.
- Katz, L. F., Kling, J. R., and Liebman, J. B. (2001). Moving to Opportunity in Boston: Early Results of a Randomized Mobility Experiment. *Q. J. Econ.* 116 (2), 607–654. doi:10.1162/00335530151144113
- Kibria, N. (2003). *Becoming Asian American: Second-Generation Chinese and Korean American Identities*. Baltimore, MD: JHU Press.
- Kim, C., and Sakamoto, A. (2010). Have Asian American Men Achieved Labor Market Parity with White Men? *Am. Sociol. Rev.* 75 (6), 934–957. doi:10.1177/0003122410388501
- Kremer, M. (1997). How Much Does Sorting Increase Inequality? *Q. J. Econ.* 112 (1), 115–139. doi:10.1007/978-3-476-03994-1
- Landale, N. S., and Oropesa, R. S. (1995). *Immigrant Children and the Children of Immigrants: Inter- and Intra-ethnic Group Differences in the United States*. Population Research Group (PRG) Research Paper 95-2. East Lansing: Institute for Public Policy and Social Research, Michigan State University.
- Lee, J., and Zhou, M. (2015). *The Asian American Achievement Paradox*. New York: Russell Sage Foundation.
- Lopez, N. (2003). *Hopeful Girls, Troubled Boys: Race and Gender Disparity in Urban Education*. United Kingdom: Routledge.
- Maccoby, E. E., and Martin, J. A. (1983). “Socialization in the Context of the Family: Parent-Child Interaction,” in *Handbook of Child Psychology: Formerly Carmichael's Manual of Child Psychology*. Editor P. H. Mussen. Wiley.
- Massey, D. S. (1996). The Age of Extremes: Concentrated Affluence and Poverty in the Twenty-First Century. *Demography* 33 (4), 395–412. doi:10.2307/2061773
- Mazumder, B. (2018). Intergenerational Mobility in the United States: What We Have Learned from the PSID. *Ann. Am. Acad. Polit. Soc. Sci.* 680 (1), 213–234. doi:10.1177/0002716218794129
- Nguyen, A., and Getinet, H. (2003). *Intergenerational Mobility in Educational and Occupational Status: Evidence from the US*. Munich, Germany.
- Ogbu, J. (1991). “Immigrant and Involuntary Minorities in Comparative Perspective,” in *Minority Status and Schooling: A Comparative Study of Immigrant and Involuntary Minorities*. Editors M. Gibson and J. Ogbu (New York: Garland Publishing), 3–33.
- Ogbu, J. U. (2003). *Black American Students in an Affluent Suburb: A Study of Academic Disengagement*. United Kingdom: Routledge. doi:10.4324/9781410607188
- Ogbu, J. U. (1974). *The Next Generation: An Ethnography of Education in an Urban Neighborhood*. Berkeley: University of California.
- Okpala, C. O., Okpala, A. O., and Smith, F. E. (2001). Parental Involvement, Instructional Expenditures, Family Socioeconomic Attributes, and Student Achievement. *J. Educ. Res.* 95 (2), 110–115. doi:10.1080/00220670109596579
- Patacchini, E., and Zenou, Y. (2011). Neighborhood Effects and Parental Involvement in the Intergenerational Transmission of Education. *J. Reg. Sci.* 51 (5), 987–1013. doi:10.1111/j.1467-9787.2011.00722.x
- Perlmann, J. (2005). *Italians Then, Mexicans Now: Immigrant Origins and the Second-Generation Progress 1890-2000*. New York: Russell Sage Foundation.
- Portes, A., and Hao, L. (2004). The Schooling of Children of Immigrants: Contextual Effects on the Educational Attainment of the Second Generation. *Proc. Natl. Acad. Sci.* 101 (33), 11920–11927. doi:10.1073/pnas.0403418101
- Portes, A., and MacLeod, D. (1996). Educational Progress of Children of Immigrants: The Roles of Class, Ethnicity, and School Context. *Sociol. Educ.* 69, 255–275. doi:10.2307/2112714
- Royston, P. (2004). Multiple Imputation of Missing Values. *Stata J.* 4 (3), 227–241. doi:10.1177/1536867x0400400301
- Rumbaut, R. G. (1994). The Crucible within: Ethnic Identity, Self-Esteem, and Segmented Assimilation Among Children of Immigrants. *Int. Migration Rev.* 28, 748–794. doi:10.1177/019791839402800407

- Sakamoto, A., and Wang, S. X. (2020). The Declining Significance of Occupation in Research on Intergenerational Mobility. *Res. Soc. Stratification Mobility* 70, 100521. doi:10.1075/la.259
- Sakamoto, A., Goyette, K. A., and Kim, C. (2009). Socioeconomic Attainments of Asian Americans. *Annu. Rev. Sociol.* 35, 255–276. doi:10.1146/annurev-soc-070308-115958
- Sampson, R. J., Morenoff, J. D., and Gannon-Rowley, T. (2002). Assessing “Neighborhood Effects”: Social Processes and New Directions in Research. *Annu. Rev. Sociol.* 28 (1), 443–478. doi:10.1038/npg.els.0003698
- Scott, A. J. (2009). Human Capital Resources and Requirements across the Metropolitan Hierarchy of the USA. *J. Econ. Geogr.* 9 (2), 207–226. doi:10.1093/jeg/lbp019
- Solon, G. (1992). Intergenerational Income Mobility in the United States. *Am. Econ. Rev.* 82, 393–408.
- Steele, C. M. (1997). A Threat in the Air: How Stereotypes Shape Intellectual Identity and Performance. *Am. Psychol.* 52 (6), 613–629. doi:10.1037/0003-066x.52.6.613
- Terriquez, V. (2014). Trapped in the Working Class? Prospects for the Intergenerational (Im)Mobility of Latino Youth. *Sociol. Inq.* 84 (3), 382–411. doi:10.1111/soin.12042
- Tran, V. C. (2016). Ethnic Culture and Social Mobility Among Second-Generation Asian Americans. *Ethnic Racial Stud.* 39 (13), 2398–2403. doi:10.1080/01419870.2016.1200740
- Wang, S. X., and Sakamoto, A. (2021). Can Higher Education Ameliorate Racial/Ethnic Disadvantage? An Analysis of the Wage Assimilation of College-Educated Hispanic Americans. *SAGE Open*, 11 (2), 21582440211009197.
- Woessmann, L. (2004). *How Equal Are Educational Opportunities? Family Background and Student Achievement in Europe and the US*. Munich, Germany: CESifo Working Paper Series. No. 1162.
- Wojtkiewicz, R. A., and Donato, K. M. (1995). Hispanic Educational Attainment: the Effects of Family Background and Nativity. *Social Forces* 74 (2), 559–574. doi:10.2307/2580492
- Zhou, M., and Bankston, C. (1998). *Growing up American: How Vietnamese Children Adapt to Life in the United States*. New York: Russell Sage Foundation.
- Zhou, M. (1997). Growing up American: The challenge Confronting Immigrant Children and Children of Immigrants. *Annu. Rev. Sociol.* 23 (1), 63–95. doi:10.1146/annurev.soc.23.1.63
- Zimmerman, D. J. (1992). Regression toward Mediocrity in Economic Stature. *Am. Econ. Rev.* 82, 409–429.

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher’s Note: All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

Copyright © 2021 Wang and Sakamoto. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.

Advantages of publishing in Frontiers



OPEN ACCESS

Articles are free to read
for greatest visibility
and readership



FAST PUBLICATION

Around 90 days
from submission
to decision



HIGH QUALITY PEER-REVIEW

Rigorous, collaborative,
and constructive
peer-review



TRANSPARENT PEER-REVIEW

Editors and reviewers
acknowledged by name
on published articles

Frontiers

Avenue du Tribunal-Fédéral 34
1005 Lausanne | Switzerland

Visit us: www.frontiersin.org

Contact us: frontiersin.org/about/contact



REPRODUCIBILITY OF RESEARCH

Support open data
and methods to enhance
research reproducibility



DIGITAL PUBLISHING

Articles designed
for optimal readership
across devices



FOLLOW US

@frontiersin



IMPACT METRICS

Advanced article metrics
track visibility across
digital media



EXTENSIVE PROMOTION

Marketing
and promotion
of impactful research



LOOP RESEARCH NETWORK

Our network
increases your
article's readership