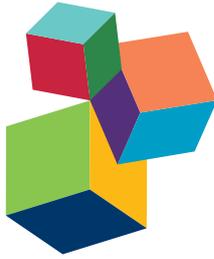


INSTITUTIONAL DETERMINANTS OF SOCIAL INEQUALITY

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INSTITUTIONAL DETERMINANTS OF SOCIAL INEQUALITY

Topic Editors:

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Understanding the factors that create and maintain social inequalities is a core question in social psychology. Research has so far mainly focused on the role of individual stereotyping, prejudice and discrimination. However, there is growing evidence that, beyond the “biased” acts of prejudiced individuals, structural factors related to the very functioning of institutions and organizations can play a role in the reproduction of social inequalities. Indeed, in industrialized countries, society is structured in a way that reflects the perspective of, is organized by, and benefits the dominant groups. In this Research Topic, we propose to bring together researchers who study how institutional ideologies and practices promote norms, rules and opportunities that favor dominant groups and disadvantage dominated groups. This question can be tackled by work investigating how institutional practices (e.g., grading, tracking, recruitment, ...) and ideologies (e.g., meritocracy, individualism, protestant work ethic, ...) shape the psychological experience of (dis)advantaged people. Moreover, another interesting venue is represented by work investigating how the institutional practices and ideologies are enacted by the agents (e.g., teachers, recruiters, leaders, ...). Taking the perspective of agents allows to investigate how institutional functioning constrains the actual opportunities they provide to (dis)advantaged individuals. This could also highlight how institutional ideologies and practices are incorporated by agents, thus revealing mechanisms of change vs. perpetuation of the institutional functioning.

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Table of Contents

04 Editorial: Institutional Determinants of Social Inequalities

Frédérique Autin and Fabrizio Butera

Asylum policies and inequalities in the right to education

06 The construction of “official outlaws”. Social-psychological and educational implications of a deterrent asylum policy

Margarita Sanchez-Mazas

Determinants of inequalities in educational institutions

Schools and Universities

10 Belief in school meritocracy as a system-justifying tool for low status students

Virginie Wiederkehr, Virginie Bonnot, Silvia Krauth-Gruber and Céline Darnon

20 First-generation students’ underperformance at university: the impact of the function of selection

Mickaël Jury, Annique Smeding and Céline Darnon

31 Social justice in education: how the function of selection in educational institutions predicts support for (non)egalitarian assessment practices

Frédérique Autin, Anatolia Batruch and Fabrizio Butera

44 The student-institution fit at university: interactive effects of academic competition and social class on achievement goals

Nicolas Sommet, Alain Quiamzade, Mickaël Jury and Gabriel Mugny

Museums

55 Museum spaces as psychological affordances: representations of immigration history and national identity

Sahana Mukherjee, Phia S. Salter and Ludwin E. Molina

Determinants of inequalities at the interplay between educational and professional worlds

71 Bridging and bonding interactions in higher education: social capital and students’ academic and professional identity formation

Dorthe H. Jensen and Jolanda Jetten

82 Finding an apprenticeship: hidden curriculum and social consequences

Gaële Goastellec and Guillaume Ruiz

Determinants of inequalities at work

95 Perceptions of national wealth and skill influence pay expectations: replicating global hierarchy on a microscale

Angela T. Maitner and Jamie DeCoster

105 Gender inequalities in the workplace: the effects of organizational structures, processes, practices, and decision makers’ sexism

Cailin S. Stamarski and Leanne S. Son Hing



Editorial: Institutional Determinants of Social Inequalities

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The Editorial on the Research Topic

Institutional Determinants of Social Inequalities

To understand the persistence of social inequalities, research in psychology has traditionally focused on individual determinants of the unequal treatment of social groups. For example, a great deal of work has situated the origin of inequalities in the discrimination produced by individuals who are biased by their negative beliefs and attitudes. And yet, several authors proposed that individuals' action and psychological tendencies are grounded in (and foster) the social world (e.g., Fiske et al., 1998). As a result, determinants of inequalities could be better analyzed by considering the way in which the social world is structured and shape people's experiences (see Adams et al., 2008). In particular, institutions (e.g., educational systems, politics and the legal system, media) are an important structural element that shapes people's experiences. Institutions reflect and promote ideas and values (e.g., equal opportunities, meritocracy, etc.), and thereby influence the way people think about themselves, others and society. However, some scholars proposed that institutions reflect the perspective of, and are structured to benefit the dominant groups (Jackman, 1994; Adams et al., 2008; Markus and Fiske, 2012). They convey ideas, promote norms, and legitimate practices that maintain and justify existing inequalities. Consequently, institutions participate in enhancing the experiences of dominant group members, while hindering those of dominated group members.

The present research topic in *Frontiers in Educational Psychology* proposes to bring together recent research studying how institutions favor dominant groups and disadvantage dominated groups. It gathers contributions from educational sciences, social psychology, cultural psychology, and sociology. Various forms of inequalities are investigated, based on social class, gender, nationality group, and migratory status. A broad range of institutional factors are considered as potential determinants of inequalities: national asylum policies and economic disparities, ideologies and practices embedded in educational institutions such as schools, universities and museums, recruitment, and human resources practices.

In an opinion piece, Sanchez-Mazas discusses the fundamental right of children to education, within the framework of migration. In particular, she analyses the asylum policies that might deny migrant such a fundamental right, with a focus on policies that trigger the disappearance of failed asylum seekers into clandestinity.

The next four articles report research that investigates how some peculiarities of educational institutions might contribute to inequalities. This research highlights barriers to the success of women and low social class students that are embedded in the very structure of educational institutions. Wiederkehr, Bonnot, Krauth-Gruber, and Darnon show that the widespread belief in meritocracy at school (i.e., success depends on hard work) serves a system-justifying role for low status students. This work points to the problem that schools might convey ideological beliefs that reinforce low status individuals' acceptance of their lower position in society. Jury, Smeding, and Darnon focus on the function of selection of educational institutions, that is their role in

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identifying the best students, rewarding them with degrees and guiding them toward the highest social positions. They demonstrate that merely reminding students of the selection operated at university hinders the performance of first-generation students. The function of selection would thus contribute to the achievement gap between first- and continuing-generation students. Autin, Batruch and Butera also studied the function of selection. Results showed that endorsing the idea that educational institutions should select the best student predicts more support for traditional assessment practices—although known to disadvantage low status students—and less support for alternative assessment practices. Promoting the idea that schools select the most deserving students would thus restrain changes in assessment practices toward greater equality. Finally, Sommet, Quiamzade, Jury, and Mugny propose to unravel institutional obstacles to the success of both low and high status students. Their results suggest that a competitive academic context reduces learning goal endorsement in first-generation students but that a less competitive context reduces learning goals in continuing-generation students. This work pleads for a greater consideration of the interaction between the students' status and the structure of the educational institutions.

Mukherjee, Salter, and Molina broaden the range of educational institutions and analyze museums as tools for history education. They propose that the historical representation of immigration reflects the dominant group's identity. Reciprocally, engaging in such representation of history shapes visitors' experience to favor the dominant group, for example by increasing exclusive stances toward immigrants.

The next two articles tackle the interplay between the educational and the professional world. Jensen and Jetten investigate student's professional and academic identity development. They question how the interactions organized in universities foster or, on the contrary, restrain the creation of the social capital that facilitates identity formation. Their results show that interactions with other students facilitates the emergence of academic identity, but hinders interaction with

teachers and the emergence of a professional identity. Goastellec and Ruiz focus on those students at the crossroad between schools and companies: apprentices. These authors highlight how the criteria used to recruit apprentices, such as skills and knowledge not taught at school, tend to reproduce already existing social class inequalities.

The two final articles widen the scope of the research topic by studying institutional inequalities in the corporate world. Maitner and DeCoster show that economic inequalities between nations are transmitted to expected inequalities in payment of individuals from these different nations, thus reproducing the global hierarchy at an organizational level. Starmarski and Son Hing review the organizational determinants of gender inequalities in the workplace and propose a model of gender discrimination in human resources.

Institutions are pervasive and powerful structures in everyday life. The research gathered in this research topic questions the neutrality of these institutions in terms of power relations between social groups. The different research streams point out factors that contribute to social inequalities but are subtle and hard to identify as such because they are embedded in the institutions that shape people's experiences. The ideas and findings presented in this research topic offer several contributions to the growing literature on the institutional determinants of social inequalities.

AUTHOR CONTRIBUTIONS

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The construction of “official outlaws”. Social-psychological and educational implications of a deterrent asylum policy

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With the increasing numbers of immigrants seeking to obtain political asylum, the receiving conditions and the deportability of refused asylum seekers have emerged as major issues. Concern with these questions has been addressed through renewed asylum policies involving expeditious processing of applications, tight restrictions upon the right to work, removal of support or detention for failed asylum seekers. These asylum policies are intended to reduce alleged “pull factors” through the use of the threat of destitution as a deterrent against asylum seeking (Da Lomba, 2006). They also aim at reducing the number of asylum seekers that remain in the territory despite having been rejected as refugees. In this regard, the deterioration of the conditions of reception is seen across the EU as one cornerstone of a “voluntary departure” policy (Fox O’Mahony and Sweeney, 2010). In this article, we examine the case of Switzerland, where the suppression of social assistance for rejected asylum seekers was intended to support such a policy. We report data from a field study showing how, in this country, this policy induces institutional practices that prevent, rather than promote, failed asylum seekers to leave the territory. We also discuss some implications of the Swiss system in the realm of education, suggesting that the institutional constraints imposed by the asylum policy jeopardize the implementation of the recognized unconditional right of children to education.

The Swiss Federal Asylum Policy

The Swiss government decision (2004) to remove the social assistance for rejected asylum seekers was first enforced through its inclusion in a comprehensive budgetary saving program approved by popular vote (FF, 2003, pp. 5091–5286). This decision was opposed by most of the human rights defenders, voluntary associations and social movements with the view that its enforcement was conducive to destitution or increasing criminality. The authorities of the Swiss cantons were to follow and to support the costs of the federal requirements. The interplay between the federal and the cantonal prerogatives in Switzerland created disparities in the implementation of the legal provisions—namely the introduction of an “emergency aid”—that followed the social assistance suppression. The solutions thus varied locally according to the political climate and the diverse traditions among the Swiss cantons of welcoming foreigners and offering asylum to political or religious refugees (Vuillemier, 1992; Green et al., 2011). This contrasting reality is often obscured by the important coverage given to the Swiss political movements against immigrants who use the instruments of the direct democracy, such as popular initiatives, in their strategy to conquer power through national xenophobic campaigns (Papadopoulos, 1991; Gentile and Kriesi, 1998; Tabin, 1999).

The system of emergency aid is based on the unconditional right to a minimum coverage of basic living needs in order to prevent destitution (Article 12 of the Swiss Federal Constitution). Used mainly by individuals in emergency situations up to 2004, it has been set up for the whole group of rejected asylum seekers as a result of denying them social aid. The cantonal implementations include compulsory accommodation in collective centers isolated from the urban population but there is a great discrepancy over how the emergency shelters are organized: Some are quasi concentration regimes (systematic entrance checks, obligation of presence, prohibition of visits), other close during the day, even in winter. Despite some slight local improvements in favor of the residents, the cantonal structures are designed in order to strengthen the residents' dependency (vouchers for food and toiletries) and the control of the authorities in all aspects of everyday life. Moreover, people have to regularly renew the emergency assistance by presenting themselves at the migration offices (sometimes every 2 or 5 days), where most often they experience pressures to leave, intimidations, as well as derogative or even humiliating treatments. These conditions maintain asylum seekers in a state of controlled illegality and affect negatively the experience of both the targeted group and the agents of this policy.

The Institutional Construction of Invisibility

Our field research (Sanchez-Mazas, 2011), conducted in four Swiss cantons (2 German-speaking and 2 French speaking areas), reveals that the system of emergency aid in the framework of a deterrent asylum policy turns out to be an instrument of pressure and discouragement that shapes the experience of failed asylum seekers in such a way that most of them do not choose to return to their home states. Through a series of interviews among asylum specialists ($N = 39$) and asylum seekers concerned by the new regime ($N = 32$), we could elicit the perspectives and experience of these non-admissible, yet officially registered, migrants and those of public officials, social workers, and members of voluntary organizations. Most often, these agents reported that this mandatory policy not only was ineffective at promoting departures but also constrained institutional practices viewed in contradiction with their mission and their values. Contrary to the expected expansion of the number of departures, new and unforeseen obstacles to returns have been identified as stemming from this very policy. Indeed, our analyses show that most of the targeted individuals actually went out of administrative controls, while remaining on the territory in an irregular manner.

We identified several social psychological impediments that might explain this reverse and unpredicted effect. We focus here on two contrasting types of social psychological processes induced by institutional practices aimed at producing deterrence effects through pressures to leave and deterioration of living conditions. The first reaction frequently encountered among our respondents is concerned with the willingness to make a voluntary depart: It heightens a fundamental motivation to restore control against attempts to constrain the behavior and pressures to submit. This *psychological reactance* (Brehm, 1993) is expressed in terms of determination to stay in order to resist

those institutional practices that impinge on individual freedom and autonomy. One of the migrants interviewed in our study (Sanchez-Mazas, 2011, p. 228) put it this way: "*The more people have their back to the door, the more they are driven to the ultimate sacrifice: remaining whatever happens. In a more liberal system, it would be more voluntary returns.*" Together with other comments collected, this example shows how the pressure to comply paradoxically becomes a factor that reinforces the individual's determination to stay at all costs. Hence, people do not stay *despite* the pressures to leave, but, rather, *because* of them.

Conversely, the second reaction results from lasting aversive conditions that make people incapable to develop a project. The deterrent policy pursued by the Swiss government heightens failed asylum seekers vulnerability by inducing weakening effects that can be conceptualized in terms of *learned helplessness* (Peterson et al., 1995). This is clearly expressed by one of our respondents: "*We despise ourselves because we are despised. This system leads people to self-destruction, this policy makes people to destroy themselves. In addition, it is counterproductive because this way we are not able not leave.*" Likewise, another asylum seeker argued that "*Well, the principle is that people leave but the reality is that people are so much deprived of their will, of their capacity, that they become amorphous. Many of them stand around doing nothing, like nailed down*" (Sanchez-Mazas, 2011, p. 229).

In analyzing these mechanisms, we propose the notion of "construction of invisibility" to refer to institutional practices triggering the disappearance of the targeted persons into clandestinity as a result of an induced increased willingness to stay or incapacity to leave. Such a process can be related to the wider phenomenon of the "legal production of illegality" that has been recently addressed on the area of contemporary migration (De Genova, 2002). The alleged efficiency of the state action in reducing the number of registered asylum seekers overstaying after being rejected stems primarily from the persons' suppression from the asylum statistics. In this way, the Swiss government could claim the success of a policy that produces illegality and destitution among those who have been described as "the most legally and socially disadvantaged people in western societies" (Castles and Davidson, 2000, p. 73). Moreover, it could pursue this policy (that first targeted mostly young men, whose application was rejected before thorough examination), by extending the decision to withdraw social assistance to all refused asylum seekers (2008), including families whose "institutional invisibilization" is problematic.

A Major Challenge for Education

The *Convention on the Rights of the Child* (ratified by Switzerland in 1997) makes primary education compulsory and available free to all. This poses the challenge for contemporary democracies of fully implementing this right when granted to children whose parents are staying in the country in an irregular manner (Laubentahl, 2011; Vandenhoe et al., 2011). The extension of this right to children without legal status represents a reversal of the historical positions between parents and children in the migration in Switzerland. While in previous years temporary legal migrants were constrained either to hide their children

or to leave them in the home country, the present relegation of migrants to a no-rights zone makes children the unique bearers of a right to insertion into society. But this right remains fragile for a population school inherently unstable and who cannot, for political reasons, fully integrate the receiving society. In the emergency assistance system especially, the overcrowding and insecure conditions of the centers are highly inappropriate for school working and involvement. Furthermore, the lack of autonomy, as well as forms of adults' "infantilization" through the institutional handling of the residents, poses a threat to the parental image and the educational relationships (Moro and Barou, 2003).

In the Swiss academic world, the lack of institutional support for dealing with the educational needs of these children is a direct outcome of an asylum policy which denies any effort that could contradict the view that rejected asylum seekers must be discouraged to stay. This leaves the staff unprepared to receive children from very diverse cultural and linguistic contexts and who are often in conditions of extreme vulnerability upon arrival at school. Teachers worry about previous "deschooling," problems of illiteracy or severe educational delays they are ill equipped to manage (Sanchez-Mazas, 2013). The feeling of being abandoned by the institution induces a sense of helplessness or guilt. Negative stereotyping and pupils' marginalization within the classroom are frequent outcomes of this situation in a political context that targets asylum seekers as undeserving and unwanted foreigners (Schmidlin et al., 2006).

Conclusion

Under the euphemistic label (Bandura, 1999) of "individual and institutional incitation," the primary purpose of the Swiss authorities was to "increase voluntary disappearances as a result of

discouragement" (Gerber and Führer, 2000, p. 7; Tafelmacher, 2009). Besides the construction of an invisible population within a democratic State, the Swiss asylum policy leads to the creation of a category of people who depend on and are under the control of the very authority that tries to deport them. In this way, it turns into "official outlaws" (Achermann, 2009) those who remain in the country in conditions of total deprivation of rights and under the threat of being arrested or subject to forced departure for illegal stay. For some people, this leads to a process of disappearance, whereby they end up in a social vacuum by being excluded from institutions and from any legal existence whatsoever. For others, namely families with children, this introduces a tension between their illegal status and their children right to attend school that threatens the human right to receive education.

Unlike the interpersonal form of invisibility that is intended to actively show disrespect (Honneth, 2001), the institutional invisibility following the asylum deterrent policy represents a de-institutionalization of existence leading to social death (Renault, 2004). The dilemmas and moral conflicts expressed by most of the agents of this policy suggest that the dehumanization process these groups are undergoing would not simply be interpreted as resulting from individual stereotyping, prejudice and discrimination (for a review, see Haslam and Lougham, 2014). Our research helps grasping some structural factors that play a role in a dehumanization process beyond, or even *against*, individual attitudes. By uncovering the institutional production of invisibility through constrained social practices and organizational arrangements, it may contribute to capture the consequences of the sociopolitical processes and the institutional factors that, in Western contemporary democracies, construe the group of stateless people, which Arendt (1951/2004) marked out as having lost all other qualities and relationships, except that they are still human.

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Belief in school meritocracy as a system-justifying tool for low status students

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The belief that, in school, success only depends on will and hard work is widespread in Western societies despite evidence showing that several factors other than merit explain school success, including group belonging (e.g., social class, gender). In the present paper, we argue that because merit is the only track for low status students to reach upward mobility, Belief in School Meritocracy (BSM) is a particularly useful system-justifying tool to help them perceive their place in society as being deserved. Consequently, for low status students (but not high status students), this belief should be related to more general system-justifying beliefs (Study 1). Moreover, low status students should be particularly prone to endorsing this belief when their place within a system on which they strongly depend to acquire status is challenged (Study 2). In Study 1, high status (boys and high SES) were compared to low status (girls and low SES) high school students. Results indicated that BSM was related to system-justifying beliefs only for low SES students and for girls, but not for high SES students or for boys. In Study 2, university students were exposed (or not) to information about an important selection process that occurs at the university, depending on the condition. Their subjective status was assessed. Although such a confrontation reduced BSM for high subjective SES students, it tended to enhance it for low subjective SES students. Results are discussed in terms of system justification motives and the palliative function meritocratic ideology may play for low status students.

Keywords: belief in school meritocracy, socioeconomic status, system justification, selection, school system

Introduction

The belief in meritocratic ideology is the belief that, in a given system, success is an indicator of personal deservingness—namely, that the system rewards individual ability and efforts (Young, 1961; Jost et al., 2003). Meritocracy is a widespread belief in our Western society. Indeed, everyone has experienced the promotion of meritocratic messages, such as in common proverbs (e.g., “If at first we don’t succeed, try, try again”; “when there is a will, there is a way”), books or movies (*The Little Engine that Could*; *The Pursuit of Happiness*), and political discourses (Democratic National Convention, “Renewing America’s Promise,” 2008, see also, Ledgerwood et al., 2011; American President Investiture speech, 2012; French presidential election, 2012). These examples illustrate how Western societies focus efforts on maintaining the belief that we live “in a just world where everyone gets what he deserves—or deserves what he gets” (Lerner, 1980, p. 18).

The belief that hard work leads to success is a particularly important norm in the school environment (Duru-Bellat et al., 2009; Son Hing et al., 2011). Supporting this idea, research has shown that teachers give more value and deliver better grades to children who provide internal explanations of their behaviors, particularly when these explanations refer to efforts (Beauvois et al., 1991; Bressoux and Pansu, 2003; Dompnier et al., 2006; Dompnier and Pansu, 2010). In addition, at school, when students want to provide a positive image of themselves to their teachers, they prefer explaining their successes and failures in terms of internal characteristics (especially efforts) rather than with external explanations (Pansu et al., 2008; Dompnier and Pansu, 2010).

In spite of that, recurrent evidence shows that other factors, including social class and gender are important and consistent predictors of school performances (OECD, 2014). This evidence clearly indicates that merit is not the only determinant of school success. Why, then, should pupils and students believe in school meritocracy? Recent research underscores that meritocratic ideology can be dissociated into two separate constructs (Son Hing et al., 2011; Duru-Bellat and Tenret, 2012): *Prescriptive* meritocracy corresponds to “how people think the system should work” (i.e., desired meritocracy) whereas *descriptive* meritocracy corresponds to “how people think the system actually work”—namely, to the belief in meritocracy. In the present paper, we examine the legitimizing function of descriptive meritocracy in the context of school. We argue that belief in school meritocracy (BSM) is a system-justifying belief, and as a consequence, that people might be particularly prone to endorsing this belief, notably when merit is the only possible track to success and upward mobility.

Belief in School Meritocracy (BSM) as a System-justifying Ideology

Outside of school, research has documented that people are driven to keep positive attitudes toward the actual system and the status quo (Jost et al., 2004) by preserving social hierarchies as being fair, legitimate, and justifiable through a number of system-justifying ideologies (e.g., belief in a just world, social dominance orientation). Belief in meritocracy is one of these ideologies (Jost et al., 2003; Jost and Hunyady, 2005) to the extent that it is used to legitimate existing social hierarchy and, as such, serves an ideological function (Sidanius and Pratto, 1999; Jost and Hunyady, 2005). Indeed, meritocratic ideology leads both low and high status group members to see their position in the hierarchy as fair and legitimate.

In accordance with these ideas, it has been shown that belief in meritocracy is positively associated with internal explanations of social position (Fraser and Kick, 2000; Jost, 2001), out-group favoritism for members of low status groups, and in-group favoritism for members of high status groups (Jost and Hunyady, 2005). In the same vein, Major et al. (2002) showed that the more women (low status) believed in meritocracy, the less they assigned their rejection by a man to discrimination. Moreover, when this belief was threatened, women endorsed stereotyped

system-justifying explanations for men’s higher status to a higher extent and were more prone to self-stereotype than when it was not (McCoy and Major, 2007). Recent research (Ledgerwood et al., 2011) has also documented that meritocratic beliefs are associated to the desire to preserve a fair and just system. Notably, when participants faced a system threat, they judged *objectively equivalent* scientific results as better in quality when they supported (vs. challenged) meritocratic beliefs. Participants also worked harder when they were told that success on the task was due to luck (rather than effort), to the extent that the task was described as useful for exploring the relationship between effort and achievement in society (Ledgerwood et al., 2011).

Taken together, these research support the idea that belief in meritocracy can serve a justifying function. However, thus far, research has exclusively focused on general meritocratic beliefs (i.e., in society). In the present paper, we focus on the more specific BSM. We argue that such a belief could be a particularly useful tool in achieving early legitimization of social inequalities, as BSM has the specificity to refer to the school system—a system particularly relevant in determining one’s future position.

Indeed, several authors have identified that the educational system serves not only an educational function, but also a selection function (Darnon et al., 2009, 2012; Jury et al., 2015). The selection function of the school system refers to the fact that, in Western societies, the school system has been ascribed the role to assign pupils at various positions, which highly differ in terms of wealth, status, power, and prestige (Duru-Bellat and Tenret, 2009). As such, school grades, ranks, and diplomas are considered “merit certificates” that largely determine one’s future position in society. Pupils with higher degrees are usually oriented toward high status positions while pupils with lower degrees (or no degrees), to lower status positions. Thus, because of the high stakes associated with school success and failure in determining one’s future, the perceived fairness of society directly depends on the perceived fairness of the school system itself. In other words, in such a system, individuals have to believe that this selection process is fair—namely, that degrees, ranks, and grades are the pure product of their efforts and merit.

However, far from being the pure reflection of merit, school grades, ranks, and degrees also strongly reflect group belonging (e.g., being a male or a female student, being from privileged vs. unprivileged background). As an example, students from unprivileged backgrounds or those whose neither parents enrolled in higher education have fewer chances to succeed at school and in the university than upper class or continuing generation students (Robbins et al., 2004; Stephens et al., 2012; OECD, 2014), and girls and boys still strongly differ in terms of orientation and achievement (Fiske, 2012). The system-justifying power of school in producing inequalities in higher education has been recently emphasized (Bonnot and Jost, 2014; Verniers et al., in press). Indeed, each year, low social status students represent the lowest proportion of graduated students and when they obtain diplomas, they obtain lower grades than high social status students (OECD, 2014). In the same vein, only 29.7% of students in scientific field (for example, engineering schools) are women while they are 73.7% in social or literary fields (Ministère de l’Education Nationale, 2014). Thus, girls and low

status students are underrepresented at university, especially in the most prestigious field (Sirin, 2005; OECD, 2014). However, admitting that school success would be determined not only by merit, but also by social group belonging (e.g., social class, gender) would question the legitimacy of those who are in a high status position and, thus, would threaten the social order. By promoting BSM, the school system is particularly efficient in justifying the social order. Indeed, by making people believe that school success is a result of individual merit, the school transforms, in some way, social class or gender differences into individual merit differences and, thus, into differences that appear to be legitimate, equitable, and fair. Such an idea is congruent with the theory of social reproduction (Bourdieu et al., 1990), according to which school promotes BSM precisely to make people accept—whatever their own status—that high status groups are more “valuable” than low status groups and, thus, deserve a higher status position within the social hierarchy. As such, BSM is a key element for maintaining the social order and rationalizing the unequal position between individuals from high vs. low status groups.

Social Status and BSM

Because of the very function of school in society, we think that, although BSM serves the interest of high status groups, members of low status groups might be particularly motivated to endorse this belief, especially when their place within the system is uncertain.

Indeed, as the system mainly serves the interest of high status groups, one could expect the members of high status groups to endorse justifying ideologies, including BSM, more than the members of low status groups (Sidanius and Pratto, 1999; Schmitt et al., 2003; Pratto et al., 2006). However, research has shown that this general assumption is not always true. In particular, according to system justification theory, there is a real “collaborative game between high and low status groups in the maintenance of status hierarchies” (Jost et al., 2003; Caricati and Lorenzi-Cioldi, 2012, p. 69). Indeed, while the meritocratic ideology is congruent with the position of members of high status groups, who are advantaged by the social hierarchies, it is conflicting for low status group members, who are disadvantaged by these hierarchies. This conflicting state explains why low status group members may also be particularly motivated to legitimize the status quo (van der Toorn et al., 2015). In fact, many researchers (Jost et al., 2003, 2004; McCoy et al., 2013) have found that system-justifying ideology, such as meritocratic beliefs, have a palliative function for members of disadvantaged groups. Indeed, as low status group members cannot restore equality, they might increase their justifying beliefs in order to reduce dissonance and preserve their group and their self-image (Jost et al., 2003). Thus, members of disadvantaged groups are also particularly likely to think that economic inequalities are legitimated and necessary and to endorse system-justifying ideologies (van der Toorn et al., 2015).

We think this might be particularly true for meritocratic beliefs. Indeed, among system-justifying ideologies (Jost and Hunyady, 2005), meritocratic ideology is specific in the sense that

it promotes the idea of a possible individual upward mobility through effort. McCoy et al. (2013) demonstrated that members of low status groups might benefit from belief in meritocracy because this belief accentuates the perception of control over future results (i.e., they can exert more or less effort). They argued that the endorsement of such beliefs “may foster the perception that members of low status groups will be joining high status groups soon” (McCoy et al., 2013). Such a process allows for reconciliation between at least ego (if not group) motives with system justification motives for low status group members.

Moreover, as already mentioned, getting school degrees largely determines people’s future place in society, especially for low status groups. Indeed, high status individuals benefit from several resources that are useful for increasing the chances to access to high positions in the society (e.g., financial resources, network, area of living, familiarity with the norms, and values of the system, Kraus et al., 2012; Stephens et al., 2012). As far as low status students are concerned, on the contrary, school achievement might be their only chance to achieve upward mobility and then access to high status position in society. Therefore, low status students may be particularly prone to endorsing BSM as a way to legitimate their future place in society. This should be reflected in a positive relationship with the belief that people’s place in society is deserved, which should be less true for high status groups. Moreover, students from low status groups might feel especially dependent on the school system that will or will not deliver those diplomas, which are door openers for a better future. Research has shown that, when feeling highly dependent on a system, people are motivated to engage in system-justification processes, and grant more support to the status quo (e.g., Kay et al., 2009; Kay and Friesen, 2011). We thus expect that, for these students, reminding them of the selection function of university, by both reinforcing this feeling of system dependency and threatening their chances of getting higher status, would bolster their BSM. Consequently, BSM might be even enhanced when their standing within a system, on which they strongly depend for acquiring status, is particularly uncertain (due to the severe selection process). As far as students from advantaged groups (e.g., male students, high SES students) are concerned, their status advantage should protect them, to a certain extent, from feeling dependent on the school system. Indeed, even if they are not “rewarded” by the school system, they still have more chances to get ahead in life and preserve their higher status. Thus, they should admit more easily that merit is not the only determinant of success.

Overview and Hypotheses

The present article tests the hypotheses that low status students might be particularly prone to relying on BSM to justify their future place in society. Consequently, BSM should be positively linked with general beliefs in a just society, especially for low status individuals. In the first study, the relationship between general system-justification beliefs and BSM will be observed among high (i.e., boys, high SES) vs. low status (girls, low SES) high school students. In Study 2, students’ place within the system will either be challenged and the system dependency

reinforced, or not, depending on the condition, by making salient the selection process students experience at the university. We expect that, for low status students, BSM would be related to the endorsement of system-justifying ideology (meritocratic beliefs at the societal level; Study 1) and enhanced as a response to threat (i.e., when students face a selection process). This should not be true for high status students.

Study 1

Method

Participants

Two hundred fifty-one high school students from two schools were asked to complete the questionnaire (147 girls, 102 boys, 2 unknown; $M_{age} = 15.03$, $SD = 0.31$). They were in their first year of senior high school. At the time the two studies were run, no approval was needed in France to conduct research on human subjects. Data were collected in accordance to the “American Psychological Association’s ethical principles of psychologists and code of conduct.” Participants were informed that questionnaires were anonymous. They could refuse to participate or withdraw from participation at any time. The agreements of the directors of each senior high school as well as parental consents were required to participate to the study. Eight students were excluded (five because they were repeaters and three because they missed to report on it), leaving 242 participants (145 girls, 97 boys) for the analyses.¹ Controlling for high school did not change any of the results, so high school was not retained in the final model.

Material

Socio-demographic information

Several information was gathered at the end of the questionnaire, including gender of participants and their fathers’ and mothers’ highest school degree. As suggested by several authors (for a review, see Kraus and Stephens, 2012), parental level of education was used as an indicator of students’ social class. Students whose parents had a high school degree (i.e., *baccalauréat*) or less were categorized as low SES students ($N = 107$), students whose parents had a higher level of education were categorized as high SES students ($N = 116$).

System justification scale

We used a French translated version from Wakslak et al. (2011) adaptation of Kay and Jost’s (2003) scale for a high school population. We added a ninth item to tap the meritocracy dimension of the scale (see below). Participants answered using a 6-point scale, ranging from (1) not at all agree to (6) completely agree. A PCA with varimax rotation revealed three factors with eigenvalues superior to 1 (accounting for 62.85% of the total variance; $KMO = 0.74$, $\chi^2[36] = 549.63$, $p < 0.001$). The first

¹The data presented in this section come from a series of questionnaires designed to investigate the influence of various ideologies on self-perceived competence, autobiographical memories, and possible selves of high school students. We report here only the results based on the first two measures appearing in the questionnaire, namely system justification measure and explanations for school achievement.

factor contained the first six items of the scale and *reflected belief in a just French society* (e.g., “Everyone in France has a fair shot at wealth and happiness”). The second factor reflected the *belief in a meritocratic society* (two items, “In France, people generally have what they deserve”; “People’s place in society largely depends on their motivation to succeed”). The last factor only comprised a reversed item (i.e., “France is getting worse every year”), so it was removed from the analyses. As both dimensions correspond to system justification and as the alpha of the complete scale is good, a score of “belief in a meritocratic and just society” was created ($\alpha = 0.75$, $M = 3.25$, $SD = 0.74$).

Belief in school meritocracy (BSM)

Pupils were then asked to judge whether success and failure at school could be explained by various factors, using 6-point scales. BSM, our variable of interest, was measured with two items, namely, explanation of school success in terms of effort, and explanation of school failure in terms of lack of effort, $r_{(238)} = 0.35$, $p < 0.001$, $M = 5.25$, $SD = 0.76$. The others were filler items. There was no significant difference in endorsement of BSM according to gender ($p = 0.67$), but a marginal effect of SES, with low SES students endorsing BSM to a lower extent ($M = 5.16$, $SD = 0.89$) than high SES students ($M = 5.34$, $SD = 0.60$, $p < 0.10$).

Results

Link between BSM and Belief in a Meritocratic and Just Society according to Pupils’ Gender

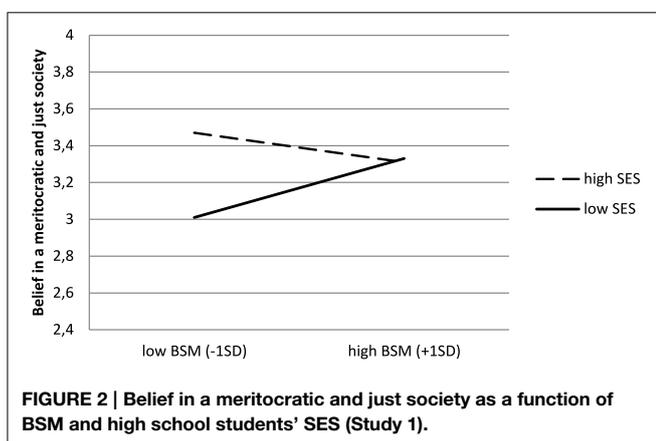
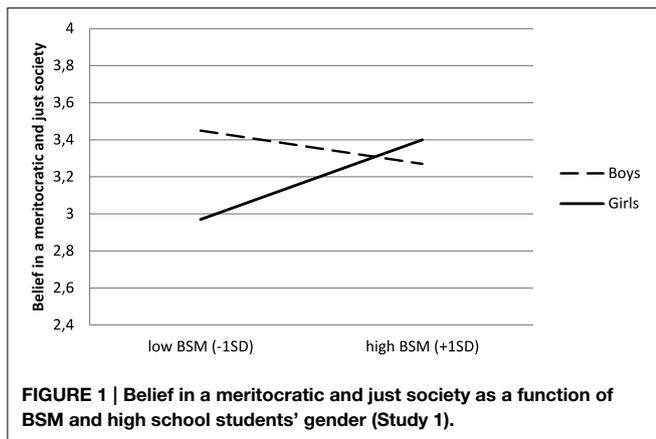
A first regression included BSM (centered variable), students’ gender (coded +0.5 for girls and –0.5 for boys), their interaction, as well as students’ SES to adjust for its effect (coded –0.5 for low SES and +0.5 for high SES). System-justifying beliefs were regressed on this model. This model accounted for 5% of the variance, $F_{(4, 221)} = 3.83$, $p = 0.005$.

Results indicate that boys tend to endorse System-justifying beliefs ($M = 3.34$, $SD = 0.74$) more highly than girls ($M = 3.19$, $SD = 0.75$), $b = -0.17$, $t_{(221)} = -1.73$, $p = 0.08$, $\eta_p^2 = 0.01$. There was a significant main effect of SES, as described in the following section, but no main effect of BSM ($b = 0.06$, $t < 1$). Moreover, as can be seen in **Figure 1**, the relationship between BSM and belief in a meritocratic and just society differed depending on students’ gender, $b = 0.30$, $t_{(221)} = 2.33$, $p = 0.02$, $\eta_p^2 = 0.02$. For boys, a simple slope analysis revealed that there was no significant relationship between the variables, $b = -0.09$, $t < 1$. For girls, however, the more they explained school achievement with efforts, the more they endorsed a belief in a meritocratic and just society, $b = 0.21$, $t_{(221)} = 2.49$, $p = 0.01$.

Link between BSM and Belief in a Meritocratic and Just Society according to Pupils’ SES

The second regression used BSM, students’ SES and their interactions, as well as gender to adjust for its effect, as predictors. When system justification score was used as a criterion, the model accounted for 4% of the variance, $F_{(4, 221)} = 3.22$, $p = 0.01$.

Results were basically the same (see **Figure 2**). High SES students ($M = 3.37$, $SD = 0.73$) endorsed system-justifying beliefs to a higher extent than low SES students ($M = 3.13$, $SD =$



0.75), $b = 0.22$, $t_{(221)} = 2.28$, $p = 0.02$, $\eta_p^2 = 0.02$. Again there was no main effect of BSM ($b = 0.04$, $t < 1$). The interaction was marginally significant, $b = -0.24$, $t_{(221)} = -1.75$, $p = 0.08$, $\eta_p^2 = 0.01$, and simple slope analyses revealed that, although there was no significant link for high SES students, $b = 0.10$, $t < 1$, for low SES students, the more they endorsed BSM, the more they believed in a meritocratic and just society, $b = 0.34$, $t_{(221)} = 4.21$, $p < 0.001$.

Discussion

High school students tend to endorse system-justifying beliefs to a higher extent when they come from a high status group (boys and high SES) than when coming from low status groups (girls and low SES students). However, in accordance with our hypothesis, members of low status groups seem to readily connect system-justifying beliefs at the school level (i.e., BSM) and at the societal level (i.e., belief in a meritocratic society), something that high status group members do not seem to do in the present study. Doing this might well serve a need to believe that, if they work well at school, they might acquire status later on in society, as that might be the only chance they get. If they do not succeed to climb the ladder, they will have only them to blame (i.e., their lack of efforts at school). Thus, for them, relying on BSM might be especially important to keep on believing that they actually control their future achievement in life.

The results of the first study support the idea that high endorsement of BSM may be, for girls or low SES students, a way to maintain the perception that the system is fair. In the next study, the conditions under which BSM is enhanced for low status groups are examined. Indeed, Study 1 suggests that BSM allows low status individuals to believe that the system is fair and legitimate and that they may reach a higher status position within such a system—namely, upward mobility is possible for them. Thus, BSM should be particularly high when individuals' place within the system is threatened and when they feel highly dependent on the system (Kay et al., 2009). To test this hypothesis, in Study 2, university students are examined. Indeed, the selection process is particularly salient at the university level (Darnon et al., 2009). Depending on the condition, students are either reminded of the important selection process that occurs at the university or told that the main goal of university is to allow everybody to succeed. Previous research has shown that low status students' performance decreases when the selection process of university is made salient (Jury et al., 2015) or when assessment practices focus on selection (Smeding et al., 2013). Moreover, the school system grants them (or not) a chance to achieve upward mobility, and they are consequently particularly dependent on it, all the more so as the selection process is made salient. Thus, low status students should be particularly prone to endorsing BSM when their place within the system is challenged—namely, when they are reminded of the fact that an important selection process occurs within the system.

In Study 2, participants were led to read a text that either made salient the selection process that occurs at the university or the idea that everybody can succeed. Two selection conditions were constructed: a “past selection” condition and a “future selection” condition. Participants were in their second year of study. In both selection conditions, the small percentage of selected students at University after, respectively, the first year (“past selection”) or the third year of studies (“future selection”) was reminded. On the one hand, the students of the “past selection” condition have passed through the harsh selection process, which may reinforce their beliefs in their own deservingness. On the other hand, in both selection conditions, participants were reminded of the important selection process at University and as such, both should threaten the place low SES students occupy within the University system. Thus, we think that both selection conditions should increase low SES students' reliance on BSM compared to the “success for all” condition.

Moreover, as recommended by Rubin et al. (2014), in Study 2, a subjective measure of SES was used. Indeed, unlike objective social status, subjective social status is highly context dependent. As an example, people from the “objective” middle class socioeconomic background can assess themselves as belonging to lower social class when they are in an elite university context (Kraus and Stephens, 2012). The imprecision of the “objective” measure of SES could perhaps explain why, in Study 1, the effects involving the SES variable did not reach the conventional level of significance. Thus, relying on students' self-perceptions rather than on the characteristics of their parents can convey a more accurate picture of their subjective experience of status within the university system. A final goal of Study 2 is to improve the

quality of the BSM measure to ensure increased validity. To that end, a multi-item scale to measure BSM was constructed. As in Study 1, the new items focus on both success and failure at school. However, in this version, some items refer to success and failure in term of grades whereas others directly contain references on deservingness and one of them is a reverse item (*cf. infra*).

Study 2

Method

Participants

Participants were 126 second-year psychology students (19 males; 107 females; $M_{age} = 20.77$; $SD = 3.22$). As in Study 1, participants were informed that their answers were anonymous and that they could refuse to participate or withdraw from participation at any time during the experiment. Personal consent was required to participate to the experiment. As the measure of BSM explicitly referred to the perception of the French school system, only French nationality students were kept in the analyses; this selection resulted in a loss of seven participants. Three more participants did not respond to the subjective SES measure. The final sample comprised 116 participants (15 boys; 101 girls; $M_{age} = 20.67$; $SD = 3.15$). In this study, the number of male participants was too low to compare them to women. Thus, only subjective SES was used as a status variable.

Procedure

Participants received a booklet containing the experimental induction and the BSM measure. They were randomly assigned to one of the three experimental groups: the “past selection” group ($N = 39$), the “future selection” group ($N = 38$), and the “success for all” group ($N = 39$). First, in the three experimental groups, participants read a sentence about the importance of students’ success at the university. In the “success for all” condition, this sentence was followed by a neutral description of the university’s administrative organization (“...University is organized into several pedagogical instances, composed of a director, teachers, staff and students, elected by their peers...”). In contrast, in both past and future selection conditions, this first sentence about the importance of students’ success at the university was challenged. Indeed, the selection process that occurs at university was made salient. The text also emphasized the small percentage of selected students (27%) after, respectively, the end of the first year (“past selection”) or the end of the second year of studies (“future selection”). As participants were in their second year of study, these inductions introduced either an upstream selection process or a downstream selection process (Sommet et al., 2013). More precisely, in the “past selection” (“future selection”) condition, participants read: “In Psychology, more than two out of three students fail to pass the first year (*the second year*) of their studies. In 2008, for example, only 27% of the students who enrolled in the first year (*second year*) of psychology succeed in their exam and then access to the second (*third*) year of psychology. This percentage illustrates the important selection process that operates after the first (*second*) year. Second year

(*third year*) students have managed to make it through this important selection process.”

Measures

Belief in School Meritocracy (BSM)

In the first study, participants were asked to report whether they believed that school successes and failures are explained by efforts (and a lack of efforts). As previously mentioned, one of the goals of Study 2 was to create a more subtle multi-item scale measuring BSM. Thus, drawing from the items of existing questionnaires, including the questionnaire on the Perception of Inequalities and Social Justice Survey (AVS, ISSP, PISJ), International Social Survey Program (Forsé and Parodi, 2011), and Preference for the Merit Principle Scale (Davey et al., 1999), a new scale was constructed. As we focused on descriptive meritocracy, the instruction of our scale was as follow: “We ask you to indicate to what extent you think each item corresponds to the reality of school today.” The eight items are presented in Appendix. One item was a reverse item. The scale demonstrated good internal reliability ($\alpha = 0.77$; $M = 3.73$; $SD = 0.76$).

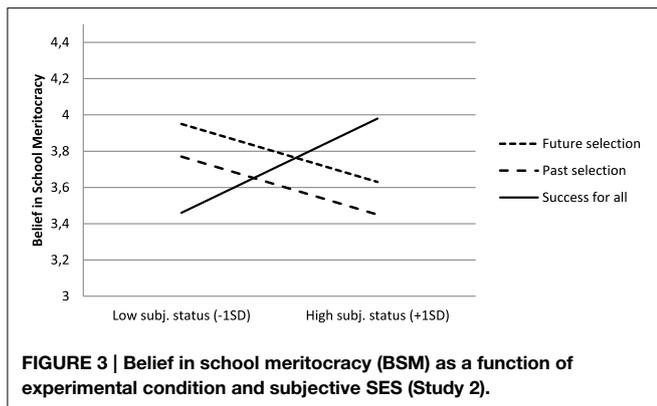
Subjective SES Scale

As previously mentioned, a measure of students’ subjective SES was used to address students’ status. We used the 10-rung scale from Adler et al. (2000). Students were asked to “Think of this ladder as representing where people stand in our society. At the top of the ladder are the people who are the best off, those who have the most money, most education, and best jobs. At the bottom are the people who are the worst off, those who have the least money, least education, and worst jobs or no job” (Adler et al., 2000). As in the original procedure, students were then asked to put an “X” on the rung they thought representing their family position in society. The more students perceived themselves to occupy a high SES position, the closer their responses approached 10 ($M = 5.62$; $SD = 1.49$).

Results

We hypothesize that, as both selection inductions should threaten the place low SES students have in the system, both should increase low SES students’ reliance on BSM compared to the “success for all” condition. Thus, we expected the two selection conditions (past and future) to differ from the “success for all” condition. To test our hypothesis, the variance was divided into two orthogonal contrasts: The contrast of interest compared the two selection conditions (coded +1 each) to the “success for all” condition (coded -2). The orthogonal contrast compared the two selection conditions (coded -1 for “future selection,” +1 for “past selection,” and 0 for “success for all” conditions). The regression analysis included the two contrasts, subjective SES (centered), and their interactions.

As expected, the interaction between subjective SES and the contrast of interest was significant, $b = -0.001$, $t_{(115)} = -2.81$, $p = 0.006$, $\eta_p^2 = 0.07$ (see **Figure 3**). The results showed that, for high subjective status students, the presence of selection information led to a lower endorsement of BSM than the “success for all” condition but the reverse occurred for low subjective status students. In simple effects analyses, we tested the effect



of the contrast of interest (namely, the comparison between the two “selection conditions” and the “success for all” condition) at two different levels of the subjective SES scale (+1SD above the mean and -1SD below the mean). These analyses indicated that the contrast of interest was significant and negative for high subjective SES students, $b = -0.16$, $t_{(115)} = 2.11$, $p = 0.04$, $\eta_p^2 = 0.08$ ($M = 3.45$ for “past selection”; $M = 3.63$ for “future selection”; $M = 3.98$ for “success for all” condition). It was marginal, in the reverse direction for low subjective SES students, $b = 0.14$, $t_{(115)} = 1.91$, $p = 0.06$, $\eta_p^2 = 0.06$ ($M = 3.77$ for “past selection”; $M = 3.95$, for “future selection”; $M = 3.46$ for “success for all” condition). No other effect reached significance: all $t_s \leq 1$, $p_s > 0.32$. Notably, the orthogonal contrast was not significant, $t = 1$, ns, indicating that the two selection condition did not differ from each other.

Discussion

In Study 2, participants were confronted, or not, depending on the condition, with threatening selection information, making salient the high failure rate at the university. The results confirmed that, as expected, the effects of this information depended on participants’ subjective SES. In line with the hypotheses, for students who perceived themselves to be of a low SES, this selection information increased their adherence to BSM. Interestingly, the reverse occurred for high status students, who seemed to endorse BSM to a greater extent when they read that the university policy goal was to achieve success for all students. We interpret this effect as resulting from the threat that this information might convey to them: If all students succeed, then their high status position in society is not secured anymore. Endorsing BSM might be a way for them to face this threat and bolster the status quo.

One could argue that students of the “past selection” may be particularly prone to endorse BSM because they have passed through the selection process, and thus, they want to increase their own deservingness. However, the very similar results in both selection conditions support the idea that what is determinant in the relation between social status and BSM is the salience of the selection process, and not personal past achievement or perception of own deservingness.

General Discussion

In the present paper, BSM is envisioned as a system-justifying tool allowing the preservation of groups’ status hierarchies later on in life (Jost et al., 2003; Jost and Hunyady, 2005). In particular, we argue that this ideology serves a rationalizing function for low status groups who might rely on it to accept more readily the place they will have in society as being deserved.

Two studies tested this role by first looking at the relationship between BSM through pupils’ explanations of school success and failure in terms of efforts and their beliefs about meritocracy in society at large (Study 1) and then by looking at the conditions under which the endorsement of BSM is increased among low status students (Study 2). Although low status pupils connect their explanations of school success (and failures) in terms of efforts to the belief that people get what they deserve in society, this connection is weaker for high status pupils. We believe that, unlike low status students for whom having a diploma is particularly important to climb the ladder, for high status students, having a diploma matters less for determining their future status. This issue is well exemplified by a participant’s statement in a research interview (Brinbaum et al., 2007, p. 109): “Someone with no diploma today still has less chance to get better along than someone else, in particular when one is not coming from a favorable background, of course. Since if ‘you are born with a silver spoon in the mouth,’ you should go well because you have parents who introduce you everywhere, because you have relations and money.” We suspect that BSM may fulfill a palliative function for low status students to deal with their uncertain future position in the social hierarchy. Moreover, Study 2 shows that, contrary to high status students, for low status university students, reminding them of the harsh selection process operating at university leads them to paradoxically endorse BSM even more. Indeed, this particularly severe selection renders uncertain their probability of achieving upward mobility and emphasizes how dependent they are on the school system. Consequently, selection increased low SES students’ reliance on BSM. Thus, taken together, the results of the two present studies document in a complementary way how BSM may serve a justifying function for low status students and help them maintaining the perception of the system as being fair and as a system in which success is possible for everybody.

Several limitations to this research should be noted. First, given that the interaction between BSM and SES did not reach the conventional level of significance we acknowledge that future studies should involve a larger set of participants in order to ascertain these links. Other limitations concern the correlational nature of Study 1 and the use of self-report measures. For these two last reasons, causality cannot be established and the possibility that a third factor may explain the relation observed cannot be excluded. For example, the difference between low and high status groups in Study 1 might reflect the fact that low and high status children do not receive equivalent parental education. Then, the measure may reflect what the participants were told about merit in school and society, rather than what they really believe. A more direct test of the implications of believing in school meritocracy for explaining one’s future place in society is needed, for instance by looking at how a

situation that experimentally enhances BSM might be related to larger-scale system-justifying beliefs and behaviors (e.g., salary expectations in the future). As such, we would ascertain that bolstering an ideology specific to one particular system (BSM in the school system) is used, albeit differently by high and low status group members, to justify a larger-scale system (social system) and employment. Second, we argue that endorsing BSM is a useful system-justifying tool because it increases people's perceived control over their future (McCoy et al., 2013). However, in this research, we lack empirical facts to help determine which of these factors (i.e., threat for upward mobility, system-dependency, decreased perceived control), a combination, or even an accumulation of factors explain why the selection function enhances BSM for low status students. Future research should test these hypotheses in a study that includes scales measuring these concepts in addition to the BSM scale and tests these outcomes as potential mediators.

As mentioned earlier in this manuscript, although BSM has sometimes been discussed as an important ideology of the school system (Bourdieu et al., 1990), few studies have examined what makes students endorse (or not) this belief, particularly in the school context. In this sense, we believe that the present results offer interesting perspectives for future research. Notably, they underscore that—beyond the knowledge of the existence of other

predictors of school success, unrelated to merit (e.g., social class, gender)—individuals may be particularly reluctant to admit that school meritocracy does not exist if they are in a lower status position. This point also calls into question the consequences of such a belief among high and low status students. Indeed, on the one hand, one could argue that, as BSM restores low status students' sense of control over their future and their perception of society as fair, BSM could have a positive impact on low status students' achievement. On the other hand, as BSM may make people internalize their position in the school system (Jost and Hunyady, 2005) and as lower status pupils and students usually perform more poorly than higher status individuals at school, BSM might threaten the perception low status students have of their ability to succeed within the system and, consequently, might reduce their achievement. Future research should examine these two possibilities.

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Appendix

Belief in School Meritocracy (BSM) Scale (Study 2)

1. At school, when there is a will, there is a way,
2. Everyone has the same chances to succeed at school,
3. To succeed at school, one only has to work hard,
4. At school, students who obtain poor grades are those who have not worked enough,
5. At school, students are rewarded (they obtain good grades, praise) for their efforts,
6. At school, children obtain the grades they deserve,
7. At school, students who obtain good grades are those who have worked hard,
8. Willingness is not always enough to succeed at school.

First-generation students' underperformance at university: the impact of the function of selection

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According to recent research, university not only has the role to educate and train students, it also has the role to select the best students. We argue that this function of selection disadvantages first-generation students, in comparison with continuing-generation students. Thus, the mere activation of the function of selection should be sufficient to produce achievement differences between first-generation and continuing-generation students in a novel academic task. Furthermore, we propose that when the function of selection is salient, first-generation students would be more vigilant to a cue that may confirm their inferiority, which should explain their underperformance. In the present experiment, participants were asked to complete an arithmetic modular task under two conditions, which either made the function of selection salient or reduced its importance. Participants' vigilance to a threatening cue (i.e., their performance relative to others) was measured through an eye-tracking technique. The results confirmed that first-generation students performed more poorly compared to continuing-generation students only when the function of selection was salient while no differences appeared in the no-selection condition. Regarding vigilance, the results did not confirm our hypothesis; thus, mediation path could not be tested. However, results indicated that at a high level of initial performance, first-generation students looked more often at the threatening cue. In others words, these students seemed more concerned about whether they were performing more poorly than others compared to their continuing-generation counterparts. Some methodological issues are discussed, notably regarding the measure of vigilance.

Keywords: university, social class, achievement gap, threat, vigilance, eye-tracking

Introduction

The university is an institution defined as a system that gives the same chances of success to every student, regardless of his or her social background. However, a lot of studies show that low social-class students have poorer chances to succeed in the educational system, including university, in comparison with their high social-class counterparts (White, 1982; Sirin, 2005; OECD, 2014). How can such inequalities persist despite efforts to make university a place where everyone should have the same chances to succeed? In the present paper, we examine how the function of selection fulfilled by the university system can at least partially contribute to reproducing unequal chances of success for students from low and high social-class backgrounds.

Recent research has documented that, in Western societies, university fulfills two distinct functions (Dornbusch et al., 1996; Darnon et al., 2009, 2012; Smeding et al., 2013). Indeed, the functional perspective of education presented by Dornbusch et al. (1996) argues that the educational system first has to “teach the cognitive skills necessary to perform occupations” (p. 405). In other words, university has a function of education with the official role to teach and develop students' skills and knowledge. Besides this function, the educational system should also “attempt to provide a rational means of selecting persons in order that the most able and motivated persons are sorted into the highest status positions” (p. 405). Thus, university also has to identify the best students and reward them with degrees, a less explicit and less official function called the function of selection. To fulfill this function, policymakers proposed selecting students on the strict basis of their merit to ultimately assign students to the “place where they belong” (Bourdieu et al., 1990; Darnon et al., 2009). The role of university is thus to identify the more deserving/talented students who should eventually graduate, possibly with honors, and who should have access to high-status jobs.

To “properly” identify the best students among others, university can use different kinds of selection instruments and procedures. In some universities, students have to run in-curriculum competitive exams with *numerus clausus* (for consequences on students' motivation, see Sommet et al., 2013). In some others, the selection step is at the admission level (e.g., in Harvard, only 5.9% of the applicants were selected to enter in the curriculum in 2014). Thus, although the selection process does not take the same form in all systems, it is highly present in most universities.

Despite the institutional discourse calling for equality in opportunities, it seems that the function of selection consistently acts in favor of high social-class students and at the disadvantage of low social-class students, hence contributing to the social reproduction of inequalities (Bourdieu and Passeron, 1964). Indeed, high social-class students represent a higher percentage of university graduates and/or get higher grades than low social-class students (OECD, 2014). They are also over represented in highly selective colleges (Carnevale and Rose, 2003; Alon, 2009; Hearn and Rosinger, 2014) as well as in graduate school (Kniffin, 2007). These discrepancies lead some authors to argue that the promise of meritocracy—underlying the university selection—is “unfulfillable” (Mijs, 2015).

Several examples in the literature illustrate that how universities intrinsically function and operate has a distinct effect on students' experiences depending on their social-class. Indeed, if such a system provides a rather comfortable environment for high social-class students, it also shapes low social-class students experiences in a way that restrains their success. Indeed, the university system promotes values, ideas, and language use that are more widely shared by dominant group members (e.g., high social-class students) than by dominated group members (e.g., low social-class students). For example, Bourdieu and Passeron (1964, 1970) and Bourdieu et al. (1990) originally assumed that students from low social-class background have fewer chances to succeed at university due to their lower economic capital (i.e., financial resources) and their lower cultural capital (i.e., cultural characteristics valued in the system, which are conveyed through speech, attitudes,

knowledge, and behaviors). Low social-class students might be less likely to succeed compared to high social-class students because their parents have not taught them implicit rules and norms that could help them know how to behave and succeed in the university system (for empirical evidence, see Gaddis, 2013; Calarco, 2014).

In line with this idea, the recent work of Stephens et al. (2012a,b,c, 2014) has significantly contributed to documenting how intrinsic characteristics of university functioning can exert an influence on low social-class students' higher education experience. In their work, the authors examined how the university system contributes to the performance gap between first-generation students (i.e., students whose parents do not have a college degree) and continuing-generation students (i.e., students whose one or both parents have a college degree). Authors mainly argue that the independent values promoted in the university context (e.g., autonomy, development of one's own way of thinking) should be in conflict with those of first-generation students and that this discrepancy should explain first-generation students' underachievement. Indeed, due to their working-class socialization—contexts in which interdependent values (e.g., learning from others, working together) are usually promoted—first-generation students develop an interdependent self-concept that mismatches with the values promoted within the system. In a series of studies, the authors provided empirical evidences that this mismatch leads first-generation students to perform more poorly and to have a poorer emotional experience at university in comparison with continuing-generation students. When this mismatch is not experienced (when interdependent values are promoted) these differences in performance and emotional experience disappeared (Stephens et al., 2012a,c).

In a different field of research, the stereotype threat literature also offers important illustrations of the difficulties encountered by low social-class students at university. According to this literature, when negative stereotypes are activated, stigmatized individuals can experience “stereotype threat”—a phenomenon that results in an aversive experience and in reduced performance (Steele and Aronson, 1995). In particular, when attending university, low social-class students are targeted by a negative stereotype (Berjot and Drozda-Senkowska, 2007), which can be threatening and impairs their psychological functioning (Schmader et al., 2008). Croizet and Claire (1998) provided initial empirical evidence that this phenomenon can affect low social-class students in the university context by showing that these students performed more poorly than their high social-class counterparts only when the task was presented as diagnostic of their intellectual ability. Additional studies consolidated their results by showing that (i) low social-class students seem to face this threat particularly when their social class was salient (Spencer and Castano, 2007) and (ii) they experienced more anxiety and a lower level of academic identification when the task was presented as being diagnostic of intellectual ability rather than when it was not (Harrison et al., 2006).

Taken together, these different mechanisms (i.e., social reproduction, cultural mismatch, stereotype threat) illustrate how the university functioning restrains the chances of success of low social class students and favors those of high social class students. They also share some common characteristics and processes.

Indeed, in the typical situations examined in this research, the university context questioned low social-class students' legitimacy and sense of belonging. We argue that the function of selection is precisely the reason why, in this system, "dominant" norms and high social-class values are promoted while negative stereotypic expectancies targeting low social-class students are regularly activated. Consequently, the university system might induce a threat for low social-class students' social identity—a threat that is particularly likely to occur when people are led to think that they might be eliminated from the system. Indeed, the structural "need to select the best students," the function of selection, by being at the disadvantage of low social-class students, should favor this general threat-inducing context and, consequently, drive low social-class students' negative experiences at university.

As a preliminary step to support the hypothesized role of the function of selection on the social-class achievement gap, Smeding et al. (2013) manipulated the selective function of an exam and tested its effect on the performance of low and high social-class students. The exam was either presented as a tool for education and mastery (e.g., "this exam has been designed to help students in their long-term learning") or as a tool for selection (e.g., "this exam has been designed to compare students in their long-term learning"; see Smeding et al., 2013). Low social-class students performed more poorly compared to high social-class students on the selection-oriented exam, a difference that did not appear when the exam was presented as a tool to train and educate students (i.e., mastery-oriented exam). These results support the idea that the function of selection, when salient in exam situations, might contribute to the social-class achievement gap. As such, this line of research can be understood as a structural (Dornbusch et al., 1996) perspective on intergroup differences in academic performance, a different yet very complementary level of analysis to those generally adopted in the stereotype threat literature. Indeed, stereotype threat research showed that the activation of a negative stereotype targeting their social group is the process that makes stigmatized individuals experiencing a disruption in their psychological functioning. The line of research presented here shows that the mechanism responsible of that disruption has to be found in the structural functioning of the institution (i.e., its function of selection) and that the psychological experiences of stigmatized students (i.e., low social-class students) can be impaired without directly activating the negative stereotype of their group.

The present research aims to extend Smeding et al.'s (2013) work in an important way. In this work, the function of selection was activated via the function attributed to the exam situation. Exam situations are very intense experiences in students' lives (Crooks, 1988), as they are used as a criterion to decide whether students can obtain a degree. This is probably why Bourdieu and Passeron (1964, 1970; see also Delandshere, 2001; Leathwood, 2005) considered them as particularly involved in the social reproduction phenomenon. Moreover, exams are supposed to diagnose students' ability to succeed and are particularly susceptible to create a threatening environment in which the difference between groups is likely to be observed (see Danaher and Crandall, 2008). Therefore, one can think that the effect of the function of selection observed by Smeding et al. (2013) is due to the specificities of the exam situation. We argue that the function of selection is highly

salient in the academic context and influences students' every day experiences at university (as independent values which are consistently displayed while studying at university, Stephens et al., 2012a,c). As a consequence, we sought to provide initial evidence that the mere activation of the selection gap function is sufficient to produce the social-class achievement gap and that its effect is not restricted to exam situations *per se*.

The first goal of the present research is thus to test whether the mere activation of the function of selection without any references to the exam situation would be sufficient to produce the social-class achievement gap on a novel, non-prototypical academic task (i.e., a modular arithmetic task, based on mental calculation). A novel task was chosen in order to reduce the potential impact that students' previous experience and performance might have on their performance in the experimental setting. While being non-prototypical in academics, modular arithmetic is based on common arithmetic operations; therefore, "it is also similar to the kinds of math problems encountered in the real world" (Beilock et al., 2004, p. 586). Further supporting the link between modular arithmetic and real-world academic tasks, good performance in this novel task relies on working memory capacity (Beilock et al., 2004)—a basic cognitive capacity used in higher-order cognitive tasks (see Engle, 2002) usually linked to achievement in several academic domains (St. Clair-Thompson and Gathercole, 2006; Packiam Alloway et al., 2010).

The second goal of the present research is to test a mechanism that might underlie the hypothesized effect of the salience of the function of selection on the performance gap between first- and continuing-generation students. Evidence from the literature shows that people who face aversive experiences are more worried about others' performance and that this worry might explain their underperformance (Brodish and Devine, 2009; see also Smith, 2004; Chalabaev et al., 2008). Here, we argue that the underperformance of first-generation students (compared with continuing-generation students) when the function of selection is salient might be explained by a disruption of their attentional processes during the task. At the heart of this idea is the model of Schmader et al. (2008) which proposed to explain individuals' underperformance when they are facing a stereotype threat situation through cognitive functioning impairment (see also Schmader and Johns, 2003; Croizet et al., 2004). These authors proposed different mechanisms that could impair working memory functioning and specifically a tendency to monitor one's performance (see also Mendes and Jamieson, 2012; Schmader and Beilock, 2012). More precisely, individuals who face a threat (i.e., as hypothesized for first-generation students when the function of selection is salient) might face aversive physiological responses (e.g., cortisol secretion, Stephens et al., 2012c; blood pressure, Scheepers et al., 2009; cardiovascular responses, Murphy et al., 2007) that they will try to reduce—along with the associated uncertainty regarding their potential success—through an increased vigilance to internal and external cues informing them about their achievement.

In line with this idea, Johns et al. (2008) showed that women who faced a threatening situation focused more on anxiety-related words compared to women who did not face threat, suggesting a stronger vigilance for cues referring to their own level of anxiety (for other examples, see Williams et al., 1996; Kaiser et al., 2006;

Forbes et al., 2008). Such vigilance to threatening cues (see also Davis and Whalen, 2001) could disrupt individuals' concentration, consume cognitive resources, and impede working memory capacity (Warm et al., 2008), which can in turn reduce their performance. In the present study, individuals have the possibility to look at a visual cue that signals whether their performance is at, above, or below the mean performance level of other participants. These cues are consistently displayed during the task. The time each participant spends on each cue is measured using an eye-tracking technique. When the function of selection is salient, first-generation students should be more vigilant to cues that can confirm their inferior performance (i.e., cues signaling their performance falls below the mean level of other participants) compared to continuing-generation students—a difference that should not appear when the function of selection is not salient. This disruption of their attention should partly explain their underperformance.

In sum, in the present research, the mere activation of the selection function of the university system is examined as a minimal condition to impair first-generation students' performance on a novel task compared to continuing-generation students' performance. Second, a potential underlying mechanism of this effect is examined, as the salience of the selection function could enhance worries about underperformance, thereby disrupting first-generation students' attention to the task. We hypothesized that, when the function of selection is salient (compared to when this function is not salient), first-generation students would spend more time looking at the visual cue, which should further explain their poorer performance in the task compared to continuing-generation students.

Materials and Methods

Participants

One hundred seventeen students enrolled in psychology at a French university voluntarily participated in the experiment in exchange for course credits. Twenty-six participants were dropped from the sample (24 for unusable eye signals and two who did not answer correctly to the experimental manipulation check). The final sample included 91 participants (70 women and 21 men) with a mean age of 18.78 years ($SD = 1.30$). Every participant gave his/her consent before the experiment began. An institutional ethics committee ("Comité de la Protection des Personnes Sud-Est 6") approved the experimental protocol (Ref: 2013/CE58).

Materials and Procedure

Manipulation of the Selection Function Saliency

Participants were randomly assigned to one of the two experimental conditions: a condition in which the function of selection was made salient ($N = 43$) and a condition in which its importance was reduced ($N = 48$). Indeed, as the function of selection is expected to influence students' daily experience, it could lead participants to actually interpret a typical neutral condition—one in which no specific instructions would be provided—in terms of selection. Therefore, as in some previous studies (Smeding et al., 2013), we decided to compare the selection condition to a "no-selection" condition, where the importance of selection

was explicitly reduced (for a discussion on this point, see Steele and Davies, 2003). More precisely, at the very beginning of the experiment, the study was presented as part of a state program called either "Succeeding in a bachelor program: at university, promoting excellence" (i.e., selection condition) or "Succeeding in a bachelor program: at university, success for everyone" (i.e., no-selection condition). Participants subsequently read an introductory text about the university's functions. In the selection condition, participants read the following introduction:

"As you may know, university makes important selections. In psychology, for example, teachers do their best, throughout their practices, to identify the best students among you—those who deserve the most to become a psychologist (5 or 10% among you). In your opinion, which type of selection method should be promoted at the university in order to truly identify the best students?"

In the no-selection condition, the text was as follows:

"As you may know, university wants to give every student the opportunity to succeed. In psychology, for example, teachers do their best, throughout their practices, to help students become psychologists one day. In your opinion, which type of method should be promoted at the university to help every student succeed?"

Participants were asked to provide an answer to the final question to make sure they read the experimental inductions. Answers to this question were also used as an experimental check (cf. participants section). After answering the question, participants received a brief presentation of the task (i.e., the arithmetic modular task, see below). This task was presented as a tool either to test useful abilities to succeed in the system (i.e., in the selection condition) or to train these abilities (i.e., in the no-selection condition). Participants were reminded of the main purpose of the experiment (i.e., in the selection condition: "Your performance in this task will furnish an estimation of your probability of success at university"; in the no-selection condition: "Doing this task will allow you to train useful abilities to succeed at university") after the training phase and immediately before the experimental phase.

Arithmetic Modular Task

In this experiment, participants had to complete an arithmetic modular task (Beilock and Carr, 2005; Crouzevialle and Butera, 2013; Smeding et al., 2015) in which they were asked to judge the validity of modular arithmetic problems presented as follows: " $36 \equiv 12 \pmod{6}$." In order to solve each problem, participants had to follow two steps: (1) subtract the second number from the first and keep the result in mind (i.e., $36 - 12 = 24$), and (2) divide this result by the mod (i.e., $24/6 = 4$). If the result was a whole number, the problem was considered valid and the answer was "true"; if not, the problem was invalid and the answer was "false." Participants had to answer quickly and accurately. To answer each problem, participants had to press a button on the top of one of two joysticks: the joystick in their dominant hand for the "true" responses and the joystick in their non-dominant hand for the "false" responses. As in Beilock and Carr (2005), these problems included low-demand problems (no-large operand number),

TABLE 1 | Means and standard deviations for achievement scores and vigilance to threat depending on the experimental condition and the generational status.

Condition	Achievement				Vigilance to threat			
	First-generation students		Continuing-generation students		First-generation students		Continuing-generation students	
	M	SD	M	SD	M	SD	M	SD
Selection	35.58	6.58	39.67	5.70	4.14	3.28	3.56	2.69
No-selection	38.90	4.65	36.70	6.35	3.63	1.93	3.36	2.50

intermediate-demand problems (one-large operand number), and high-demand problems (two-large operand numbers).

Initial performance

The first part of the arithmetic task involved a six-item training phase. The performance during this training phase (i.e., number of problems solved correctly) was used as a measure of initial performance ($M = 4.52$; $SD = 1.29$). It should be noted that neither the manipulation of the salience of the selection nor the generational status affected students' initial performance (all $ps > 0.65$).

Achievement in the task

After the training phase, participants had to solve 48 problems presented as the main task. Their mean level of performance (i.e., number of problems correctly solved) was 37.76 ($SD = 6.00$). Means and standard deviations as a function of the experimental condition and generational status are presented in Table 1.

Generational Status

Based on previous research (Stephens et al., 2012a; Harackiewicz et al., 2014; Jury et al., 2015), parental level of education was used to assess students' social class. Therefore, at the very end of the experiment, participants had to report their mothers' and fathers' highest degrees. The *baccalauréat* (i.e., the French high school exit exam) was used as the criterion for determining students' generational status. This degree determines whether one will get access to higher education. Participants whose parents did not pass the *baccalauréat* were coded as first-generation students; if at least one parent had earned the *baccalauréat* (or any higher degree), students were classified as continuing-generation students. Based on this classification, 40 students were coded as first-generation students and 51 as continuing-generation students.

Participants' Vigilance to Threat

In the present study, participants were allegedly informed about their performance in comparison with previous participants through two specific cues (see Figure 1). More precisely, two arrows were presented on the right part of the screen: an upward arrow oriented toward the top of the screen and a downward arrow oriented toward the bottom of the screen. Participants were told that, when the two arrows had the same size, their performance was at the mean level in comparison with other participants. When the upward arrow was bigger compared to the downward arrow, the participant's performance was supposedly

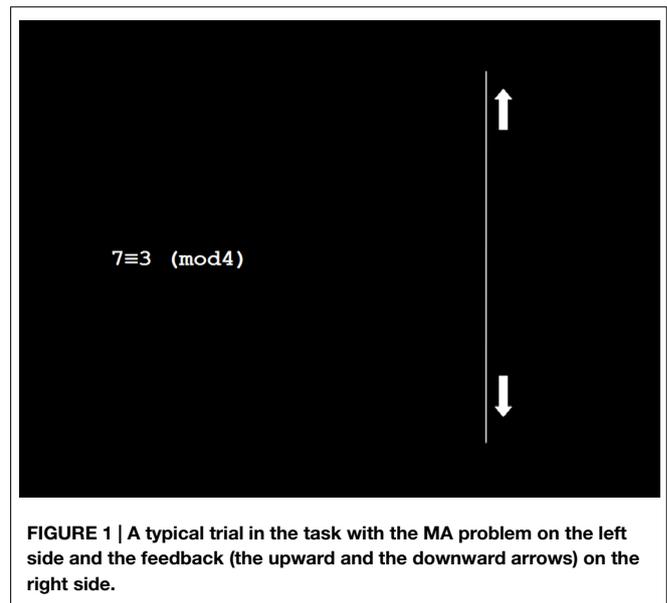


FIGURE 1 | A typical trial in the task with the MA problem on the left side and the feedback (the upward and the downward arrows) on the right side.

above the mean level of other participants' performance. When the downward arrow was bigger compared to the upper arrow, the participant's level of performance was supposedly below that of others. These cues were consistently displayed on the screen. In reality, the feedback provided was perfectly random, as our aim was to examine the extent to which participants were interested in information potentially confirming their inferiority—that is, the downward arrow.

Individuals' vigilance was measured using an eye-tracking technique (for example, see Mogg et al., 2003). Eye movements—more precisely, eye fixations—can be considered as an indicator of individuals' attention to various types of information (Mogg et al., 2003; Strick et al., 2009; Vainio et al., 2009; Wang, 2011; Godfroid and Uggen, 2013; Godfroid et al., 2013). In the present experiment, participants' eye fixations were recorded using a remote eye-tracking system (i.e., iView X Hi-Speed, Senso Motoric Instruments). Movements of the two pupils were recorded continuously while participants looked at a display. Participants' head was tuned into the eye-tracking system in order to maintain their eyes at a distance of 50 cm from the middle of the screen. Prior to the experiment, the researcher performed a calibration procedure. The data were then extracted using the SMI BeGaze software. The data from both eyes were examined independently. A judge coded each eye on a 4-point scale (from 0 = unusable to 3 = good signal). Participants for whom neither eye was coded as at least two were

excluded from the sample. The signal for the best eye was kept for the analyses.

In the present experiment, three areas of interest (AOI) were defined: (1) the problem area, (2) the upward arrow area, and (3) the downward arrow area. A relative fixation time score was computed that corresponded to the fixation time in a particular AOI relative to the total fixation time in all AOIs (for examples, see d'Ydewalle and De Bruycker, 2007; Georgescu et al., 2013; Chang and Choi, 2014)

Therefore, the time participants spent looking at the three different AOIs was expressed as a percentage over the total time participants looked at the three AOIs during the experiment. The mean percentage of time spent on the problem was 88.59 (SD = 7.18), the time spent on the upward arrow was 7.78% (SD = 5.42), and the time spent on the downward arrow was 3.64% (SD = 2.59). See **Table 1** for means and standard deviations as a function of the experimental condition and generational status.

Results

ANOVAs were conducted to test the effect of the three independent variables: the experimental condition (coded -1 for selection and $+1$ for no-selection), the generational status (coded -1 for first-generation students and $+1$ for continuing-generation students), and the initial level of performance (mean-centered). The interactions among these three independent variables were also entered into the model. The initial level of performance was entered into the analyses to identify more clearly the role of our hypothesized variables (i.e., by controlling the variance explained by students' initial abilities in the task). Preliminary analyses were conducted on the total time spent on the task (in milliseconds) as a function of the experimental condition and generational status. The results revealed that participants spent the same time on the task, regardless of the experimental condition, $F(1,87) = 2.54$, $p = 0.12$, or their generational status, $F(1,87) = 1.91$, $p = 0.17$. The interaction between these two variables was also not significant, $F(1,87) = 2.39$, $p = 0.13$. Thus, the total time spent on the task was not entered in the analyses.

Achievement

We hypothesized that the mere activation of the function of selection would be sufficient to impair first-generation students' performance (number of problems correctly solved) compared to continuing-generation students. First, the results indicated that the initial level of performance predicted the level of achievement on the task, $F(1,83) = 23.84$, $p < 0.001$, $\eta_p^2 = 0.22$. Specifically, a better initial performance predicted better performance on the main task. The main effects of the experimental condition and generational status were non-significant (all $ps > 0.51$). However, the expected interaction between the experimental condition and generational status was significant, $F(1,83) = 6.73$, $p = 0.011$, $\eta_p^2 = 0.07$. As shown in **Figure 2**, when the function of selection was made salient, first-generation students ($M = 35.58$, $SD = 6.58$) performed more poorly compared to continuing-generation students ($M = 39.67$, $SD = 5.70$), $F(1,83) = 4.96$, $p = 0.029$, $\eta_p^2 = 0.05$. This difference did not appear when the function of selection was not salient, $F(1,83) = 2.01$,

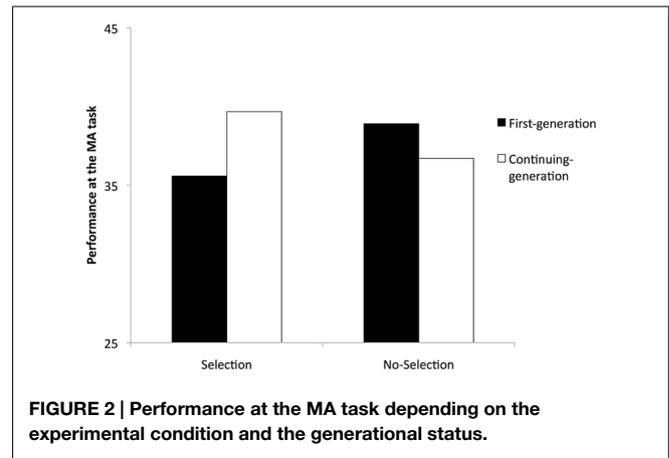


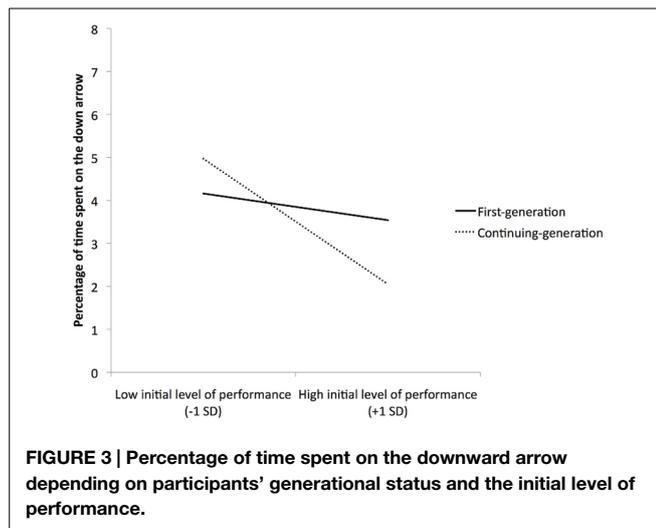
FIGURE 2 | Performance at the MA task depending on the experimental condition and the generational status.

$p = 0.16$. No other interactions reached significance (all $ps > 0.13$). Although our main achievement indicator was participants' performance on the whole set of problems, in supplementary analyses, the level of difficulty (low, intermediate, and high-demand problems) was entered in the model as a within-participants variable. The results indicated that the interaction between selection and generational status was not moderated by the level of difficulty, $F(2,166) = 1.20$, $p = 0.30$.

Participants' Vigilance to Threat

In the selection condition, but not in the no-selection condition, we expected first-generation students to pay more attention to the indicator that could confirm their inferiority than continuing-generation students. To test this hypothesis, we analyzed the percentage of time participants spent on the downward arrow, which indicated that they were performing more poorly relative to others. First, the main effect of initial performance indicated that the better their initial performance, the less participants looked at the downward arrow, $F(1,83) = 12.60$, $p = 0.001$, $\eta_p^2 = 0.13$. It is worth noting that a marginal interaction appeared between the experimental condition and the initial level of performance, $F(1,83) = 3.34$, $p = 0.071$, $\eta_p^2 = 0.03$. This marginal interaction suggested that the negative relationship between the initial level of performance and time spent on the downward arrow was stronger for participants in the selection condition, $F(1,83) = 13.85$, $p < 0.001$, $\eta_p^2 = 0.14$, than for those in the no-selection condition, $F(1,83) = 1.55$, $p = 0.22$. No main effect of experimental condition, of generational status, or of the interplay between experimental condition and generational status was found (all $ps > 0.38$). As an interaction between the experimental condition and generational status was not observed on the hypothetical mediator (i.e., the percentage of time spent on the downward arrow), the mediation path could not be tested.

However, an unexpected interaction between generational status and initial performance was found, $F(1,83) = 6.07$, $p = 0.016$, $\eta_p^2 = 0.06$. As shown in **Figure 3**, at a low level of initial performance, no difference emerged between first- and continuing-generation students $F(1,83) = 1.73$, $p = 0.19$; however, at a high level of initial performance, first-generation students



were more likely than continuing-generation students to look at the downward arrow, $F(1,83) = 4.74$, $p = 0.032$, $\eta_p^2 = 0.05$. The three-way interaction did not reach significance, $p = 0.53$.

To ensure that these effects were specific to the downward arrow, analyses were also conducted on the time participants spent on the upward arrow (i.e., indicating they are performing better than others). The results revealed only a main effect of the initial level of performance—specifically, the better participants initially performed, the less they looked at the upward arrow in the second phase, $F(1,83) = 12.91$, $p = 0.001$, $\eta_p^2 = 0.13$. No other effects reached significance (all $ps > 0.12$).

Discussion

The aim of the present research was twofold. First, the study aimed to test whether continuing-generation students outperform first-generation students on a novel academic task only when the selection function of the university system is activated. The second purpose of this experiment was to test a possible underlying mechanism that could explain this result—namely, a disruption in first-generation students' vigilance. This mechanism is based on the hypothesis that, in a threatening situation, stigmatized people monitor their performance and are vigilant to threatening cues (Schmader et al., 2008). Thus, first-generation students were expected to spend more time on a cue informing them that they were performing more poorly compared to others when the function of selection was salient. Looking at this cue was expected to impair their performance.

As expected, first-generation students performed more poorly compared to continuing-generation students when the function of selection was salient. In the no-selection condition, no differences were found. These results replicated the findings obtained in previous work conducted in an academic exam situation on a typical academic task (Smeding et al., 2013), tending to confirm that the university system can create a threatening climate (i.e., through its function of selection) that leads first-generation students to be outperformed by continuing-generation students. It is important to note that the present results extend previous knowledge

by showing that such differences can be observed in minimal conditions, via the mere activation of the function of selection, and are not restricted to typical exam situations. The findings also provide support for the idea that, despite an institutional discourse claiming equal opportunities for every student, the very functioning of the university system contributes to continuing-generation students' better performance.

Regarding the second purpose of this work, we expected that, in a threatening situation, stigmatized individuals should monitor their performance and be more vigilant to threatening cues—namely, to cues that might confirm their inferiority. To test these hypotheses, we measured students' vigilance for a threatening cue—that is, an arrow indicating that they were underperforming compared to others—via their eye movements. The results did not support the hypothesis. Indeed, no difference appeared between first- and continuing-generation students' attention to the downward arrow, regardless of the experimental condition. This lack of interaction on the hypothesized mediator did not allow to further test the potential mediation path assuming that the vigilance disruption may explain first-generation students' underperformance.

Different explanations might contribute to our understanding of why, in this experiment, no evidence was found to support the hypothesis that first-generation students were more vigilant to the threatening cue (i.e., the downward arrow) compared to continuing-generation students when the function of selection was salient. First, Van Yperen and Leander (2014) demonstrated that, because social comparison information is prevalent in our society (i.e., excellence and success are often defined in comparison with others; see Harackiewicz et al., 1998), comparison with others is an automatic process (see also Gilbert et al., 1995). Consequently, students in the present experiment might have looked at the social comparison information on the screen even in the no-selection condition because this information is readily available and difficult to avoid (i.e., as it results from an automatic process). Another explanation might be that students do not usually receive direct (i.e., online) feedback when they are working on an academic task. Thus, providing real-time feedback might appear as a relatively novel type of information and act as a disruptor, encouraging every student (i.e., regardless of experimental condition and generational status) to pay attention to the available normative information. Moreover, although often used in previous research, the eye-tracking measure used in the present research might not be precise enough. Indeed, by estimating the total time spent on three different AOIs, we obtained a global score of behavior that might not identify students' sheer intentions or interests by including some artificial "noise" (i.e., students who looked at the arrows without thinking about their performance, instead thinking about how to solve the problem). One promising perspective to go beyond this possible limitation would be to design a study that would allow us to identify students' first intention for each problem. By isolating students' eye movements in the first milliseconds of each trial, as done by Beattie and McGuire (2012), it could be possible to identify whether students are first interested in the problem and/or in the threatening cue.

However, the results concerning the vigilance to the threatening cue provided interesting information. Indeed, the results

showed that first-generation students with a high level of initial performance were more vigilant to the downward arrow than their continuing-generation counterparts. In other words, first-generation students whose initial level of performance was high seemed more concerned about performing poorly than their continuing-generation counterparts. These results can be linked to recent research in the achievement goal literature (Jury et al., 2015). Indeed, the achievement goal literature assumes that, when facing an academic task, students can pursue different types of achievement goals (Elliot et al., 2011), including performance-avoidance goals (i.e., defined as the goal not to perform poorly in comparison with others). Recently, it has been argued that first-generation students with a high level of academic achievement are particularly prone to endorse performance-avoidance goals in comparison with continuing generation students because they are close to achieve an upward mobility process, a process that can be costly (Jetten et al., 2008; Reay et al., 2009; Lee and Kramer, 2013). Indeed, these authors proposed that the identity-threat that first-generation students might face at university should be even more salient for competent first-generation students because of the conflict between their actual identity (i.e., first-generation students) and their prospective identity (i.e., a higher-status one). Results from three studies confirmed that, at a high level of academic achievement, first-generation students endorsed more performance-avoidance goals than their continuing-generation counterparts. In a different yet complementary way, the results obtained in the present experiment tend to confirm these findings by showing that first-generation students, despite a high initial level of performance, pay more attention to the downward arrow, suggesting they are more concerned about performing poorly compared to continuing-generation students. Such motives (i.e., the fear of performing more poorly than others) have been shown to be highly detrimental for students (e.g., low intrinsic motivation, Elliot and Church, 1997; disorganization, surface learning, Elliot and McGregor, 2001; poor academic performance, Van Yperen et al., 2014); thus, the present results open questions on how first-generation students deal with a high level of performance. Indeed, a high level of academic performance should be a force that orients individuals toward positive perspectives (i.e., like approach forms of motivation, see Cury et al., 2006). The present results suggest that it can rather be an additional burden for first-generation students. An explanation of this process could be that competent first-generation students are not able to correctly estimate their level of competence and might perceive it as relatively low (for an example, see Ivcevic and Kaufman, 2013). This potential low level of perceived competence could explain why these students are more oriented toward avoidance forms of motivation (Cury et al., 2006). Future research should address this question in order to understand this process more clearly and to propose interventions that could help these students stay away from avoidance tendencies.

Despite its contributions, the results of the present experiment should be interpreted with caution for several reasons. First, in the present experiment, the mere activation of the function of selection condition was not compared with a neutral control condition, but with a condition in which the importance of the function of selection was reduced. In particular, the no-selection condition

focused on improvement and training, a type of instruction that might be beneficial to low-status people (Aronson et al., 2002; Souchal et al., 2014). Consequently, it is difficult to know whether the effect is due to the increase of the selection function saliency, the decrease of this saliency in the no-selection condition, or both. Second, in the present research, the selection condition reported a very high selection rate (i.e., 5 to 10%). If anything, this rate might have strengthened the effects by making the social identity threat more salient (i.e., the higher the selection is, the tougher success is and the lower low social-class students' feeling of legitimacy might be). If such a rate corresponds to the selection practices in several universities, it could vary a lot across countries, fields, and types of universities. In order to generalize our findings, the rate of selection should be varied experimentally in future research. Finally, the present findings apply to the arithmetic modular task examined here. Replicating the findings on different academic tasks would strengthen their generalizability.

Notwithstanding these limitations and the need to carefully establish conclusions, we believe that the present research offers a substantial contribution to the literature for several reasons. First, by showing that when the function of selection was salient first-generation students underperformed compared to their continuing-generation counterparts, this experiment tends to confirm that—despite an institutional discourse claiming equality between students, regardless of their social class background—the university system might contribute to the social reproduction phenomenon (Bourdieu et al., 1990; Stephens et al., 2012a; Smeding et al., 2013) and the mere activation of this function seems to be sufficient to threaten first-generation students. Second, although more data are needed to confirm this effect, part of the results seems to confirm that, at a high level of performance, first-generation students are more worried about failure than continuing-generation students. These results support the general hypothesis that coming from a low social-class background is challenging at university (Stephens et al., 2015). Previous work showed that lower low social-class students face a lot of negative outcomes when attending university (e.g., a lower sense of belonging, Ostrove and Long, 2007; a lower level of self-efficacy, Ramos-Sánchez and Nichols, 2007; a higher feeling of guilt, Covarrubias and Fryberg, 2014; a higher level of depression, Stebleton et al., 2014). The present work extended previous research (Jury et al., 2015) by showing, within a different paradigm, that these difficulties seem to be particularly experienced by high achievers.

From an applied perspective, these latter results could be another argument sustaining researchers' rising interest in interventions aimed at improving first-generation students' experience at college. Indeed, as previously developed, accumulated evidence from the literature emphasizes how difficult the path to graduation can be for these students, leading Stephens et al. (2015) to propose different kinds of interventions that might help first-generation students have better experiences/more success at college. The present results, showing that the achievement gap between first- and continuing-generation students can be eliminated when the importance of the function of selection is reduced, could bolster this need for interventions. Previous work has shown that student-based interventions, such as a self-affirmation technique (Harackiewicz et al., 2014) or a

difference-education intervention (Stephens et al., 2014), could significantly reduce the magnitude of the achievement gap. The present research suggests that acting directly on the meaning of the situation (e.g., promoting at an institutional level the idea that university aims to provide each student with the opportunity to succeed) can also significantly reduce the achievement gap.

Author Contributions

MJ, AS, and CD conceived and designed the study. MJ collected the data and analyzed it under the supervision of AS and CD.

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Social justice in education: how the function of selection in educational institutions predicts support for (non)egalitarian assessment practices

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Educational institutions are considered a keystone for the establishment of a meritocratic society. They supposedly serve two functions: an educational function that promotes learning for all, and a selection function that sorts individuals into different programs, and ultimately social positions, based on individual merit. We study how the function of selection relates to support for assessment practices known to harm vs. benefit lower status students, through the perceived justice principles underlying these practices. We study two assessment practices: normative assessment—focused on ranking and social comparison, known to hinder the success of lower status students—and formative assessment—focused on learning and improvement, known to benefit lower status students. Normative assessment is usually perceived as relying on an equity principle, with rewards being allocated based on merit and should thus appear as positively associated with the function of selection. Formative assessment is usually perceived as relying on corrective justice that aims to ensure equality of outcomes by considering students' needs, which makes it less suitable for the function of selection. A questionnaire measuring these constructs was administered to university students. Results showed that believing that education is intended to select the best students positively predicts support for normative assessment, through increased perception of its reliance on equity, and negatively predicts support for formative assessment, through reduced perception of its ability to establish corrective justice. This study suggests that the belief in the function of selection as inherent to educational institutions can contribute to the reproduction of social inequalities by preventing change from assessment practices known to disadvantage lower-status student, namely normative assessment, to more favorable practices, namely formative assessment, and by promoting matching beliefs in justice principles.

Keywords: educational institutions, institutional practices, normative assessment, formative assessment, selection, social inequalities, justice beliefs, meritocracy

Introduction

In most Western societies, educational institutions are perceived as an engine for social justice. By providing equal opportunities, education is believed to contribute to assign individuals to the academic and social positions that correspond to their aptitudes and motivation, regardless of their family's wealth, background or social belonging. And yet, international surveys show that education fails to fulfill this role of "equalizer," as pupils' and students' social background still strongly predicts their educational attainment (OECD, 2013a). These statistical trends show that the ideal of a meritocratic selection has yet to be reached. We propose that assigning to education the function of selecting the most deserving students could ironically participate in the reproduction of social inequalities. More precisely, in the present research we investigate how the belief that the function of educational institutions is to select students predicts the support for different kinds of assessment practices known to be more or less favorable to the disadvantaged, through corresponding beliefs in justice principles.

The Two Functions of Educational Institutions

Throughout their modernization process, most industrial countries have regularly voiced concerns about establishing a fair society. One central question has been how to reconcile the commitment to equality and the existence of a stratified society. Indeed, as soon as equality of all humans became a fundamental value, the need to find a justifiable way of differentiating between individuals also emerged (Bisseret, 1974; Carson, 2007). The solution that was predominantly endorsed in the Western world was to ascribe social positions based on characteristics that seemed naturally distributed between individuals: abilities, ambition and efforts. In this context, educational institutions were given a crucial role. They became the place where these individual differences could be estimated and certified, relying on assessment methods rather than differences in social background. Thus, educational credentials, such as grades, certificates and diplomas, increasingly became a pass to access different social positions. However, several authors noted that, echoing the paradox between equality and differentiation, educational institutions fulfill two main functions, namely an educational and a selection function, whose articulation may need particular attention (Dornbusch et al., 1996; Darnon et al., 2009).

The Educational Function

First, mass education, which is a standard in most Western countries, offers equality of opportunity to all individuals, and is intended to develop every student's potential. Educational institutions thus fulfill an *educational function* to the extent that they equip all students with knowledge, skills and capacities for learning. As stated in the Universal Declaration of Human Rights, "everyone has the right to education," and educational institutions are supposed to safeguard this ideal. In practice, in Western societies, elementary education is compulsory and public schools offer a free access to all. Schools thus ensure that individuals master the basic knowledge and competences deemed necessary to take part in society (Parsons, 1959; Forquin,

1992; Dubet, 2004). This educational function is perceived as a way to foster social mobility (Bowen et al., 2005; Duru-Bellat, 2008): through the democratization of knowledge and increase of competence, education is expected to expand all individuals' opportunities and warrant that no talent is wasted.

The Selection Function

Beside teaching skills and knowledge, education also serves a *function of selection*. Compulsory education makes opportunities available to all at first, but then individuals are trained for different social positions. Indeed, in most OECD countries, educational systems are divided into different types of programs, some being more vocational and others more academic. Even though the age at which students are sorted into different career tracks varies across countries, all educational systems carry out a more or less systematic and explicit selection (OECD, 2013b). At each successive tracking, only a fraction of the population moves to the most valued steps. Ultimately, only about 30% of adults have access to higher education (OECD, 2013c). It is important to note that attributing such a role of filter to educational institutions concords with the meritocratic ideal (Young, 1958). Indeed, it is now accepted that social positions should no longer be inherited but reflect individual merit. In education, merit is mostly defined as ability and motivation, qualities viewed in Western cultural models as intrinsic to the individual (Plaut and Markus, 2005) and educational institutions are perceived as a neutral place where individuals can express their inherent qualities. Then, to provide the most objective gage of individuals' merit, educational systems rely on assessment procedures such as tests and exams that have become a basis for the selection of the most deserving students (Carson, 2007).

Selection and Education

However, research has long shown that beyond the rhetoric about a meritocratic selection based on individuals' potentials, the reality is that socio-economic status (SES) is still related to academic outcomes. Indeed, several international surveys pointed to the fact that, compared to their socio-economically advantaged counterparts, disadvantaged students are more likely to underperform, repeat grades, drop out, and attain a lower level of education (OECD, 2010, 2013c). Eventually, disadvantaged individuals end up in lower status occupations and advantaged individuals in higher status positions, thus reproducing the social hierarchy existing prior to undergoing the educational process (OECD, 2010). Some scholars have claimed that, in fact, the functioning of educational institutions itself plays an active role in perpetuating the social hierarchy (Bourdieu and Passeron, 1977; Yosso, 2002). In this article, we focus on the perceived functions of educational institutions and the assessment practices enacted in these institutions. We propose that believing that educational institutions should select the best individuals is associated with more support for assessment practices that favor high status students and hinder the success of lower status students, and with less support for an assessment method that has the potential to reduce status-based performance gaps. On the contrary, the belief in the education role of school systems

should be associated with less support for forms of assessment that reinforce inequalities and more support for egalitarian assessment practices. We also investigate how the relationship between the two functions of education and assessment practices is partly explained by the perceived justice principles underlying these practices.

Assessment Practices and Social Inequalities

Some scholars suggested that educational institutions transform social inequalities into seemingly natural scholastic inequalities (Bourdieu and Passeron, 1977; Yosso, 2002). Indeed, many educational practices are conducive to the unequal treatment of students with differing social backgrounds. One of the most pervasive of these practices is assessment.

Normative Assessment

The most common assessment method in Western educational institutions is, by far, normative assessment, i.e., a form of evaluation based on a quantifiable measure of performance (e.g., numerical grades, letters, percentages or value judgments) that allows comparison to a social standard defining success (Knight and Yorke, 2003). One of the main characteristics of normative assessment is thus to reduce performance to a single indicator that is easily interpretable, which facilitates ranking and social comparison (Thorndike, 1913; Rosenholtz and Simpson, 1984), and makes it particularly useful to perform the function of selection (Dornbusch et al., 1996). Beside these structural features, it is also important to review some functional effects in relation to who is selected when using normative assessment.

Some historical and sociological analyses have proposed that normative assessment through testing and competitive examinations is rooted in traditions, methods, conceptions of knowledge and standards that serve the dominant groups (Wilbrink, 1997; Delandshere, 2001; Leathwood, 2005; Carson, 2007). The rankings and competence certification produced by normative assessment would thus participate to maintain the pre-existing social order. These analyses are corroborated by empirical research that (a) documented the deleterious consequences of normative assessment for students, especially from lower status groups and (b) investigated how normative assessment lead agents of the educational institutions to reproduce status-based achievement gaps.

As for the first body of empirical research, several results showed that normative forms of evaluation have deleterious consequences for learners. One consequence is that grades—which are typically used to perform normative assessment—lead students to be motivated by the desire to outperform others and the fear to be outperformed (Butler, 1987; Pulfrey et al., 2011). Such performance goals are associated with negative consequences such as self-handicapping (e.g., procrastination; Urdan et al., 1998) and superficial learning strategies (Nolen, 1988; Elliot and Harackiewicz, 1996; Meece et al., 2006). Moreover, students who were led to adopt performance goals by instructions that emphasized high stake performance and ranking experienced distractive outcome concerns that hijacked their cognitive resources and disrupted their performance (Crouzevialle and Butera, 2013).

This deleterious dynamic of performance goals may especially impact lower status students (Kaplan and Maehr, 1999; Jagacinski et al., 2008). Nicholls (1979) proposed that competitive contexts emphasizing normative evaluation and the demonstration of relative ability produce inequalities in the motivation necessary to develop skills and perform well. Recently, Smeding et al. (2013) provided a compelling demonstration that assessment practices oriented toward performance-based ranking particularly harm the academic achievement of low SES students. They showed that regular normative assessment (i.e., a final exam) and assessment experimentally emphasizing outperforming others impaired the performance of low-SES students, who then performed worse than high-SES students. The social class achievement gap, however, disappeared when assessment was experimentally presented to students as a way to learn and improve. Similar results were found on the gender-based achievement gap in science (Souchal et al., 2013). This body of research suggests that normative assessment in its usual form leads students to focus on demonstrating their ability and outperforming others and contributes to the lower achievement of lower status students.

A second body of research took the perspective of the agents of the educational system who enact the assessment practices, and set out to question the extent to which normative assessment reflects individual merit. More precisely, several studies revealed that the knowledge of the students' social background could bias their teachers' evaluation (Ouazad, 2008; Mechtenberg, 2009; Burgess and Greaves, 2013; Hinnerich et al., 2014). In an experimental study, in particular, German teachers were asked to grade a set of essays (Sprietsma, 2013). In all conditions, the essays were the same but the origin of the pupil's name was manipulated. Some teachers thought a given essay was written by a native while others thought it was produced by a pupil with a migrant background. The results showed that the essays received lower grades when migrant pupils supposedly wrote them compared to the condition in which native pupils supposedly wrote them. Similar results were found in India where teachers gave lower grades to exams supposedly produced by low castes pupils compared to high castes pupils (Hanna and Linden, 2009).

In summary, normative assessment practices were historically implemented partly to fulfill the function of selection by allowing an objective detection of the most deserving students, notwithstanding their background. However, a growing set of evidence suggests that these assessment practices may backlash and contribute to the social reproduction of inequalities. We have shown how normative assessment may trigger psychological processes, in both students and teachers, that result in hindering the academic success of lower status students.

Formative Assessment

A number of alternative assessment methods have been developed to foster the learning of all students instead of favoring an elite or already advantaged groups. Research in education has long suggested that classroom environments oriented toward learning are more efficient (Nicholls, 1979; O'Neill, 1988; Wang et al., 1990; Crahay, 2012). The practices supporting a

learning-oriented climate include cooperative learning, explicit teaching, clear and adapted instruction, maximized learning time and—most relevant for the present contention—alternative forms of evaluation.

Among these alternative forms of evaluation is formative assessment (Black and Wiliam, 1998). It is conducted during the learning process and is specifically intended to be a tool for improvement. The assessment can be conducted by the teachers, the students themselves or their peer and is formative to the extent that it provides a specific and detailed feedback that can be used to adapt the teaching and learning activities to the students' progress and difficulties. Formative assessment can take various forms but we refer here to qualitative feedbacks provided to students that target specific learning objectives and provide guidance on how to improve (Torrance and Pryor, 1998; Shute, 2008; Bennett, 2011). Formative feedbacks inform the students about the desired outcome, the quality of their work compared to that standard and ways to attain it (Sadler, 1989). This kind of assessment practices is in line with the educational function of educational institutions because it aims at promoting the skills and knowledge of all students. On the contrary, formative assessment can hardly fulfill a selection purpose, as it does not allow social comparison and ranking.

A thorough review of the literature showed that formative assessment has a strong, reliable and general positive impact on students' learning (Black and Wiliam, 1998). For example, giving formative feedbacks to students reduced their fear of negative outcomes for an upcoming task. This relationship was mediated by higher autonomous motivation (i.e., behavior driven by individual's goals or interest; Pulfrey et al., 2011; see also Pulfrey et al., 2013). In another study, pupils who received formative comments on previous exercises expressed a higher interest in the task, were ready to work on more extra tasks, and performed at a higher level on the subsequent task than students who received traditional forms of assessment (i.e., grades or praise; Butler, 1987).

There are reasons to think that lower status students could be those who benefit the most from formative assessment. Lower status students experience a mismatch with the norms and culture promoted in educational institutions (Stephens et al., 2012). Formative assessment makes the rules more transparent, by clarifying the expectations and how to meet them, which could help lower status students to adjust to the educational requirement. Lower status students also often feel that they "don't belong here" and doubt their ability to succeed or think that others doubt their ability. Such experience of disqualification is known to impair performance (Cohen and Garcia, 2008; Croizet and Millet, 2012). Formative assessment shifts the focus from the evaluation of one's self-worth as a student to evaluation as a way to improve and learn, which could limit lower status students' concerns and help them achieve. And indeed, research has shown that, for female students, being oriented toward mastery and learning led in the long run to greater belief that they are capable of understanding the class and doing the required work, and to more use of strategies to monitor and control their learning (Patrick et al., 1999). Two literature reviews also showed that

practices oriented toward learning, such as formative assessment, are especially beneficial to lower status students (O'Neill, 1988; Bissonnette et al., 2005). Using formative assessment could thus be a tool to reduce achievement inequalities between different social groups.

When comparing the literatures on formative and normative assessment, one may wonder why the latter is still the mostly used form of evaluation. We argue that support for these two assessment methods relates to the two functions of education. Support for normative assessment would be connected to selection purposes while support for the formative assessment would be linked to educational purposes. At the beginning of this theoretical section we have pointed out that much of the research on assessment has been motivated by the cultural belief that educational institutions should be an engine for social justice; thus, it is now time to discuss the justice principles that might underlie normative and formative assessment in educational institutions. Indeed, normative and formative methods imply different ways of allocating educational rewards, and different ways of treating the students during the learning process. These different principles of justice would make them more or less suitable to perform the selection and the educational function.

Justice in Educational Institutions Normative Assessment and Equity

The function of selection relies on a meritocratic ideal, whereby individuals are guided toward the position that corresponds to their dispositions. Historically, testing and graded exams were developed by measurement experts and psychologists to provide quantitative tools to a society based on individual merit (Lemann, 1999; Carson, 2007). The meritocratic ideology implies that rewards are allocated equitably, based on individual motivation, talent and hard work (Son Hing et al., 2011). The equity-based principle of justice is highly prevalent in school contexts and in particular in grade allocation (Sabbagh et al., 2006). Investigating teachers' practices, Resh (2009) showed that they report using mostly equitarian rules to fairly determine grades, considering the student's ability, success and effort. Interestingly, students share the idea that grade distribution should be guided by an equity principle (Jasso and Resh, 2002; Sabbagh et al., 2004). Such a consensus is captured by Deutsch's (1979) theoretical contention that a fundamental function of normative assessment is to lead students to believe in meritocratic competition and in the fact that equity is the best way to allocate rewards.

The perceived reliance of normative assessment on the equity principle would explain why this method seems highly relevant to enact the function of selection. Because it seems to allocate rewards based on student's merit, normative assessment appears as the best tool to select the most deserving students. On the contrary, the educational function would discourage the idea that assessment should establish an equity principle of justice. This function implies that all individuals should increase their level of competence, which is incompatible with an allocation of rewards based on the students' initial input. The discouragement of the equity principle by educational purposes should relate to a perception of normative assessment as being an inadequate method.

Formative Assessment and Equality and Need

By contrast, formative assessment was developed with a view to improving the learning of all students. Reducing the gap between individuals who are unequal at the beginning of the pedagogic action is central to the rationale for implementing formative practices. These are framed as tools to institute a principle of corrective justice that ensures equality (Perrenoud, 1995; Dubet and Duru-Bellat, 2004; Crahay, 2012). It should be noted that equality in this case is not defined as the exact same treatment of all individuals during the learning process but as the equality of outcomes at the end of the learning process, obtained by a differentiated treatment of individuals as a function of their needs. Formative assessment is thus grounded in two egalitarian principles of justice: equality and need. The need principle implies to give more resources to those who need more (Deutsch, 1975): level, pace, content and methods should be adjusted to meet the students' needs (Hallinan, 1988; Sabbagh et al., 2006). Formative assessment precisely aims at enabling such adjustments (Black and Wiliam, 1998): by giving learning opportunities adapted to each student, formative practices ambition to erase the original disparities in competence. All students should attain a high level of competence, and this level should be unrelated to their initial amount of skills. Ultimately, equality of outcomes would be established.

The equality and need principles of justice established by formative assessment fit the educational function of schools stating that all individuals should attain a certain level of skills and knowledge. On the contrary, the corrective justice inherent to formative assessment makes it incompatible with the function of selection. The need principle implies to identify individual differences but with the purpose of reducing them rather than using them to rank and attribute credentials. The ultimate principle of equality of outcomes is undifferentiating and cannot lead to selection.

Hypotheses and Overview

Previous research has shown that normative and formative assessments contribute to respectively accentuate and attenuate social inequalities. In order to understand the support for these two assessment methods, we investigate how it relates to the selection and educational functions of educational institutions and justice principles. Firstly, we hypothesize that believing in the function of selection should be positively associated to the support for normative assessment practices. We expect this relationship to be mediated by the perception that normative assessment follows an equitarian principle of justice. Secondly, the belief in the function of selection should be negatively associated to the support for formative assessment practices. This lower support should be mediated by the reduced perception that formative assessment allows to meet the students' need and ensure equality of outcomes. Thirdly, the belief in the educational function of education should relate to more support for formative assessment, this being mediated by a higher perception of its reliance on the need and equality principles of justice. Fourthly, the endorsement of the educational function should be negatively associated with support for normative assessment, through a negative relationship with the equity principle. To test our

hypotheses, we administered a questionnaire measuring beliefs in the selection and the educational function of educational institutions, support for the normative and the formative assessment and the extent to which each assessment method follows each of three principles of justice (i.e., equity, equality and need).

Materials and Methods

Participants

One hundred and forty nine students enrolled in political science at a French-speaking Swiss university took part to the study. They voluntarily completed the questionnaire at the end of a regular class. Nine participants were removed from the analyses because they did not fill most of the questionnaire ($N = 2$), were not native French speakers ($N = 3$) or always gave the same answer ($N = 4$). The final sample included 140 students (mean age = 22.13, $SD = 2.56$; 73 women, 66 men, 1 unspecified). All data were collected in accordance to the American Psychological Association's ethical principles and analyzed anonymously. This research was conducted in compliance with the declaration of Helsinki.

Material and Procedure

Participants were first asked to imagine that they were secondary school teachers and, to commit them to this role-play, they had to list their supposed daily activities as a teacher. Then they had to fill in, on seven-point scales, a questionnaire developed to measure the functions of the educational system¹. Three items referred to its function of selection (e.g., "The role of the educational system should be to deliver the best diplomas to the best students," see items SelSys1 to SelSys3 in **Table 1A**) and three referred to its educational function (e.g., "The role of the educational system should be to help the students to gain solid knowledge," see items EduSys1 to EduSys3 in **Table 1A**). Participants were presented with similar items to assess their perception of the selection vs. educational function of teachers (e.g., "As a teacher, your role is to give academic rewards only to the best students," see items SelTea1 to SelTea3 and EduTea1 to EduTea3 in **Table 1A**).

The second part of the questionnaire started with an explanation of the normative assessment method illustrated with a graded test. Participants read that this method is based on grades that reflect the number of right and wrong answers. Normative assessment was presented as enabling teachers to estimate the students' learning, judge their performance according to a norm defining success and relatively to their peers. Participants then evaluated this assessment method on seven-point scales. Nine items assessed the justice principles (three items for each principle). Participants rated the fit of the assessment method with the equity principle (e.g., "This method values your students as a function of their merit," see items Equi1 to Equi3 in **Table 1B**), the equality principle (e.g., "This

¹Darnon, C., Dompnier, B., Buchs, C., Jury, M., and Butera, F. (in preparation). Selection and/or education: validation of a scale assessing the perception of the two functions of the educational system.

TABLE 1 | Standardized factor loadings.

A	Select	EduSyst	EduTeach	
<i>You think that the role of the educational system should be to</i>				
SelSys1 Detect among students those who are the most able to pursue their curriculum	0.57			
SelSys2 Deliver diplomas as a function of every student's academic level	0.77			
SelSys3 Deliver the best diplomas to the best students	0.79			
EduSys1 Make sure that students master their course content		0.74		
EduSys2 Ensure that students' knowledge increases		0.75		
EduSys3 Help students to gain solid knowledge		0.79		
<i>As a teacher, your role is to</i>				
SelTea1 Detect the students who have the greatest chances to successfully pursue their curriculum	0.54			
SelTea2 Make sure that students receive a diploma that corresponds to their academic level	0.75			
SelTea3 Give academic rewards only to the best students	0.58			
EduTea1 Make sure that all students master your course content			0.78	
EduTea2 Allow all students to increase their knowledge			0.77	
EduTea3 Help all students to gain solid knowledge			0.83	
B	EquitNorm	EqualNorm	NeedNorm	SuppNorm
<i>If you were to use this method (normative assessment), you would feel like</i>				
Equi1 This method allows to reward your students depending on the quality of their work	0.83			
Equi2 This method values your students as a function of their merit	0.72			
Equi3 This method enables you to give the best outcomes to your most talented students	0.38			
Equa1 This method allows you to take all your students to the same level of attainment		0.62		
Equa2 This method makes sure that all your students understood the class and can succeed		0.94		
Equa3 This method fosters all students' learning		Excl.		
Need1 This method rewards your students for their effort and progress, regardless of how well they performed			0.74	
Need2 This method allows you to help your students as a function of their needs			0.64	
Need3 This method values your students even if they struggle			0.77	
Supp1 As a teacher you would use this method				0.80
Supp2 You think it is a good assessment method				0.84
Supp3 You think it is a reliable assessment method				0.69
Supp4 You think it is a precise assessment method				0.60
C	EquitForm	Equal/NeedForm	SuppForm	
<i>If you were to use this method (formative assessment), you would feel like</i>				
Equi1 This method allows to reward your students depending on the quality of their work	0.84			
Equi2 This method values your students as a function of their merit	0.80			
Equi3 This method enables you to give the best outcomes to your most talented students	0.53			
Equa1 This method allows you to take all your students to the same level of attainment		0.70		
Equa2 This method makes sure that all your students understood the class and can succeed		0.70		
Equa3 This method fosters all students learning		Excl.		
Need1 This method rewards your students for their effort and progress, regardless of how well they performed		0.76		
Need2 This method allows you to help your students as a function of their needs		0.71		
Need3 This method values your students even if they struggle		0.62		
Supp1 As a teacher you would use this method			0.91	
Supp2 You think it is a good assessment method			0.94	
Supp3 You think it is a reliable assessment method			0.75	
Supp4 You think it is a precise assessment method			0.76	

method allows you to take all your students to the same level of attainment," see items Equa1 to Equa3 in **Table 1B**), and the need principle (e.g., "This method values your students even if they struggle," see items Need1 to Need3 in **Table 1B**). Finally, four items estimated the overall support for the method. Participants were asked whether they would use this method and whether they

think it is a good, reliable and accurate assessment tool (see items Supp1 to Supp4 in **Table 1B**).

In the third part of the questionnaire, the formative assessment method was described and an example of a test with comment-based feedbacks was presented. Participants read that formative assessment is based on formative comments. This method was

presented as enabling teachers to estimate the students' learning, judge their performance according to learning objectives and suggest ways to improve. Participants filled in the same items measuring the three justice principles and the overall support for the method. The order of the second and the third part of the questionnaire was counterbalanced.

Results

Relations between the perceived function of education, the justice principles followed by assessment methods and the support for these methods were estimated using structural equation modeling (SEM) analyses performed with the Lavaan package in R (Rosseel, 2012). First, confirmatory factor analyses (CFA) were used to identify the best-fitting measurement model. Then SEM examined the relationships among the latent variables and tested the specific hypotheses. The measurement model was identified by fixing the non-standardized factor loading of one of the indicators per latent variable to one. Our data being non-normal and incomplete, we used the Robust Maximum Likelihood (MLR) estimation method (Yuan and Bentler, 2000). The MLR estimator produces maximum likelihood parameter estimates with standard errors and χ^2 test statistics that are robust to non-normality and missing data. Model fit was estimated by a number of convergent indices: the robust Yuan-Bentler scaled chi-square test, standardized root mean square residual (SRMR), the root-mean-square error of approximation (RMSEA) and the comparative fit index (CFI). Well-fitting model is suggested by a SRMR value below 0.08, a RMSEA close to 0.06 or below and a CFI value over 0.90 (Bentler, 1990; Hu and Bentler, 1999).

Measurement Model

The sample size did not allow testing a model including all our variables. Our hypotheses imply that we investigate the relationship between the perceived functions of education and both the perception of the normative assessment, and the perception of the formative assessment. Consequently, we conducted separate analyses on the functions of education, the perception of normative assessment and the perception of formative assessment.

Functions of Education

The expected four-factor model, consisting of the selection and educational function of the educational system and the selection and educational function of teachers, showed a covariance matrix that was not positive definite. Inspection of the data suggested that this was caused by an overlap between two latent variables: the function of selection of the educational system and the function of selection of teachers ($r = 1.12$). Considering the similarity between the two sets of items, the two sets were integrated in a single variable referring to the function of selection of education. The reduced three-factor model showed a marginal fit Y-B χ^2 (51, $N = 140$) = 106.96, $p < 0.001$, SRMR = 0.06; CFI = 0.90; RMSEA = 0.09 (90% CI of 0.07, 0.11, $p_{close} = 0.003$). Examination of modification indexes (MI) revealed correlation among error terms associated with two pairs of items: SelSys1

and SelTea1 (MI = 36.80), EduSys1 and EduTea3 (MI = 15.71). Such covariance can be explained by the substantial content overlap among the items. The correlation between the two pairs of error terms were added to the model one at a time, which significantly improved the fit (i.e., significant Satorra-Bentler-Scaled- χ^2 -difference-test; Δ SBS- $\chi^2 = 14.69$, $p < 0.001$ and Δ SBS- $\chi^2 = 18.30$, $p < 0.001$; Satorra and Bentler, 2001). The re-specified model showed a good fit Y-B χ^2 (49, $N = 140$) = 58.97, $p = 0.16$, SRMR = 0.05; CFI = 0.98; RMSEA = 0.04 (90% CI of 0.000, 0.07, $p_{close} = 0.69$). The factor loadings, presented in **Table 1A**, were all significant (all $p_s < 0.001$).

Normative Assessment

We hypothesized four latent variables, referring to the three principles of justice and the support for the assessment method. The four-factor model showed a moderate fit Y-B χ^2 (59, $N = 140$) = 125, $p < 0.001$, SRMR = 0.07; CFI = 0.91; RMSEA = 0.09 (90% CI of 0.07, 0.11, $p_{close} = 0.002$). We inspected MI to assess whether the fit could be improved. The values indicated residual covariance of the item Equa3 with several other items. Given the multiple covariance, we decided to remove it, which improved the fit (BIC of 5768.75 compared to a BIC of 6245.16 for the original model, Raftery, 1995). Modification indices also indicated that the fit could be improved by allowing the errors of item Supp3 and Supp4 to correlate (MI = 20.57) as well as the errors of items Supp1 et Supp2 (MI = 18.39). These items refer to the same dimension of support. Allowing the residuals of these two pairs of items to be correlated further improved the fit (Δ SBS- $\chi^2 = 10.81$, $p < 0.002$ and Δ SBS- $\chi^2 = 6.08$, $p < 0.02$). The final re-specified model showed an excellent fit Y-B χ^2 (46, $N = 140$) = 46.09, $p = 0.47$, SRMR = 0.05; CFI = 1; RMSEA = 0.004 (90% CI of 0.000, 0.06, $p_{close} = 0.91$). As shown in **Table 1B**, all indicators strongly loaded on the factors (all $p_s < 0.001$).

Formative Assessment

We tested the four-factor model (i.e., three principles of justice and the support for the assessment method) and obtained an acceptable fit Y-B χ^2 (59, $N = 140$) = 106.51, $p < 0.001$, SRMR = 0.05; CFI = 0.94; RMSEA = 0.08 (90% CI of 0.06, 0.10, $p_{close} = 0.03$). Inspection of the data indicated a high correlation between the equality and the need principle of justice ($r = 0.92$) and multiple covariance for the item Equa3. Because of the theoretical closeness of these two principles of justice, we decided to combine them into one latent variable referring to a principle of corrective justice that did not include the item Equa3, successfully improving the fit of the model (Δ BIC = 374). Based on modification indices, we allowed the errors of item Supp3 and Supp4 (that belong to the same theoretical dimension of support) to correlate (MI = 14.17) and the errors of items Equa1 and Equa2 (that refer to the dimension of equality; MI = 7.47). These successive changes improved the fit (Δ SBS- $\chi^2 = 6.64$, $p < 0.01$ and Δ SBS- $\chi^2 = 4.92$, $p < 0.05$). The fit of the final re-specified model was good Y-B χ^2 (49, $N = 140$) = 69.97, $p = 0.03$, SRMR = 0.05; CFI = 0.97; RMSEA = 0.06 (90% CI of 0.02, 0.08, $p_{close} = 0.36$). **Table 1C** shows the all-significant factor loadings (all $p_s < 0.001$).

Structural Models Normative Assessment

Descriptive statistics and zero-order correlations among variables are reported in **Table 2A**. The correlations are in the expected direction, except for the perceived educational function of school systems and teachers. We observed a ceiling effect and low variances, and therefore no correlation with other factors. This

led us to exclude the two variables from the model, which prevented the test of Hypothesis 3. **Figure 1** shows the results of the structural equation model testing Hypothesis 1, stating that equity-based justice mediates the positive relation between the function of selection of education and the support for the normative assessment. The model fit the data well, Y-B χ^2 (122, $N = 140$) = 139.76, $p = 0.13$, SRMR = 0.05; CFI = 0.98;

TABLE 2 | Descriptive statistics and zero-order correlations between the variables.

	M	SD	1	2	3	4	5	6	7	
(A)										
(1) Function of selection	3.95	1.33	–							
(2) Educational function system	6.34	0.80	0.14	–						
(3) Educational function teachers	6.31	0.80	0.10	0.73***	–					
(4) Equity-based justice for the normative assessment	4.04	1.32	0.33***	0.07	–0.05	–				
(5) Need based justice for the normative assessment	2.46	1.19	0.02	–0.05	–0.11	0.19*	–			
(6) Equality based justice for the normative assessment	2.78	1.34	0.17†	0.01	–0.03	0.22**	0.52***	–		
(7) Support for normative assessment	3.76	1.47	0.30***	0.07	0.001	0.69***	0.37***	0.35***	–	
(B)										
(1) Function of selection	3.95	1.33	–							
(2) Educational function system	6.34	0.80	0.14	–						
(3) Educational function teachers	6.31	0.80	0.10	0.73***	–					
(4) Equity-based justice for the formative assessment	4.15	1.43	–0.01	0.05	–0.02	–				
(5) Corrective (equality/need) justice for the formative assessment	4.99	1.21	–0.17*	–0.03	0.06	0.60***	–			
(6) Support for formative assessment	4.37	1.64	–0.19*	–0.01	0.09	0.57***	0.76***	–		

† $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

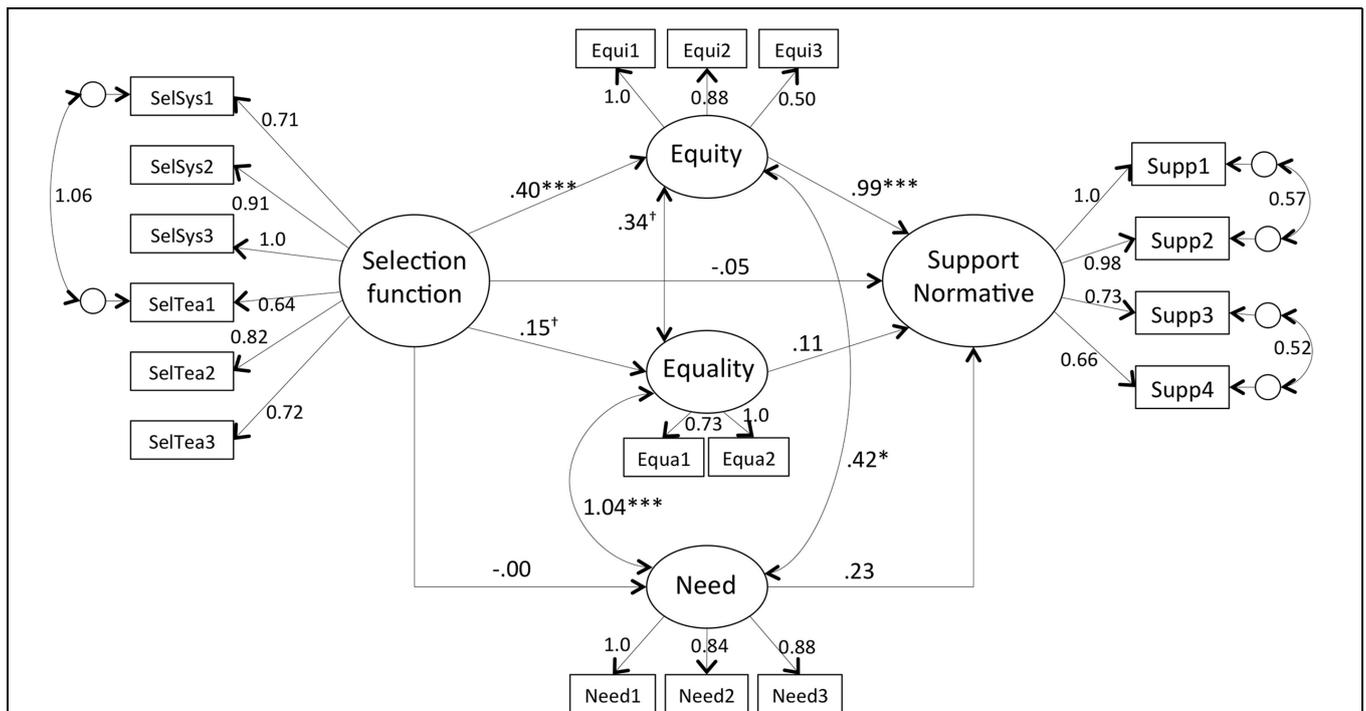


FIGURE 1 | Mediation model showing how the function of selection of education positively relates to the support for normative assessment via equity. All values are unstandardized coefficients († $p < 0.10$; * $p < 0.05$; *** $p < 0.001$).

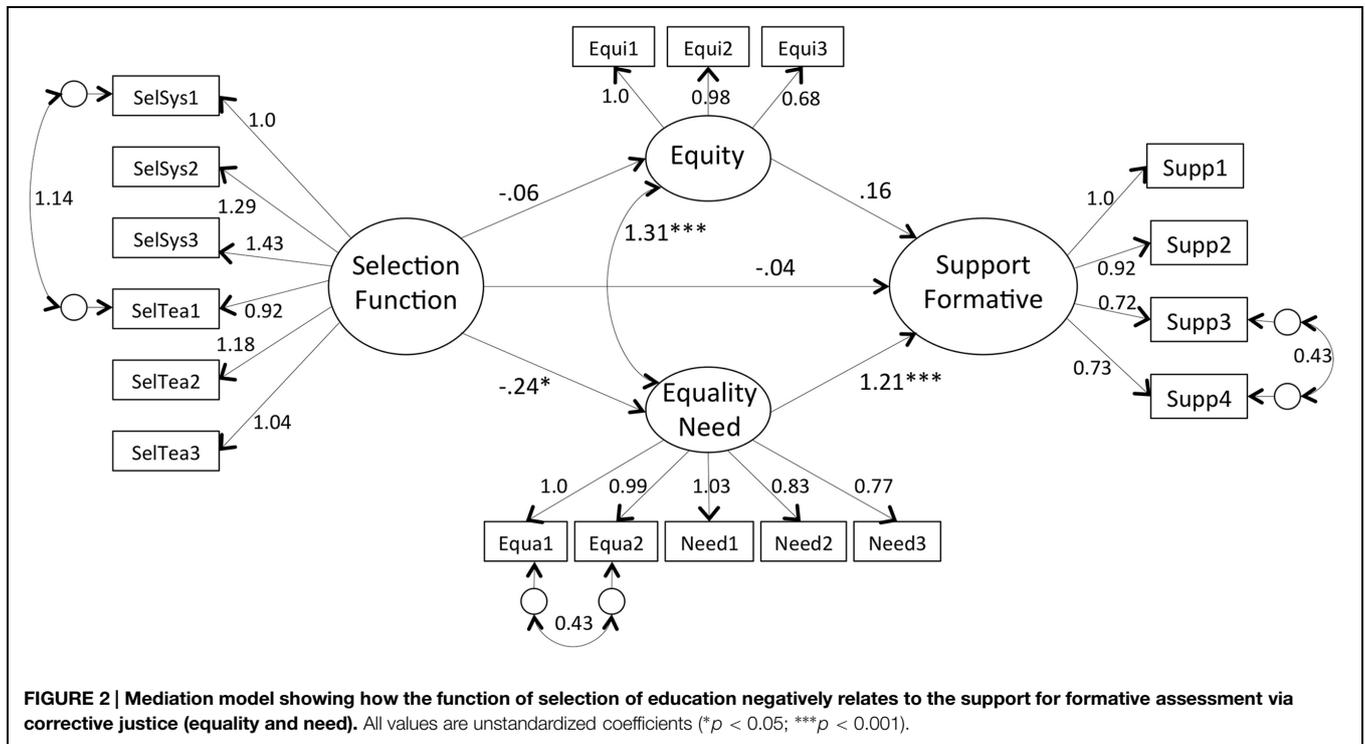
RMSEA = 0.03 (90% CI of 0.000, 0.06, $p_{close} = 0.89$). In accordance with our hypothesis, the indirect path including equity-based justice was significant ($b = 0.57, z = 3.66, p < 0.001$) contrary to the indirect path including equality and need-based justice (respectively $b = 0.02, z = 0.90, p = 0.37$ and $b = -0.001, z = -0.06, p = 0.96$). Indicating a full mediation, the direct effect of the function of selection on the support for normative assessment was not significant ($b = -0.08, z = -0.52, p = 0.60$). These results indicate that thinking that education's role is to select students relates to a positive evaluation of the normative assessment. This relation is mediated by beliefs that normative assessment allows to allocate rewards equitably.

To test whether the links between variables was moderated by the order of presentation of the assessment methods, we performed multi-group SEM analyses. We first tested a model that introduced no equality constraints as a function of order. This unconstrained model was tested against a model in which all factor loadings were constrained to be equal across groups. The comparative fit of the two models indicated that the structure of the latent variables was similar in the two orders of presentation ($\Delta \text{SBS-}\chi^2(13) = 14.45, n.s.$). We then tested a model that constrained both factor loadings and all regression paths and covariances between latent variables to be equal across groups. Imposing equality constrains on the regression paths and covariances did not cause significant decrement in model fit ($\Delta \text{SBS-}\chi^2(10) = 6.35, n.s.$), suggesting that the structural relationships between the function of education, justice beliefs and support for the normative assessment was similar across order of presentation.

Formative Assessment

We hypothesized that the support for formative assessment would be negatively related to the function of selection and that this relation would be mediated by the belief that this method follows an equality/need-based justice principle (Hypothesis 2). **Table 2B** shows the descriptive statistics and the zero-order associations between the variables that are consistent with our hypothesis. Again, the variables referring to the educational function did not correlate with any other variables and were excluded, which prevented the test of Hypothesis 4. Results of the structural equation model are shown in **Figure 2**. Despite the significant Y-B chi-square test [$\chi^2(126, N = 140) = 182, p = 0.001$], other fit indices suggest a good fit, SRMR = 0.06; CFI = 0.95; RMSEA = 0.06 (90% CI of 0.04, 0.07, $p_{close} = 0.25$). The predicted indirect path including equality/need-based justice was marginally significant ($b = -0.29, z = -1.94, p = 0.052$) while the indirect path including equity-based justice was not significant ($b = -0.01, z = -0.39, p = 0.69$). The direct effect of the function of selection on the support for formative assessment was not significant ($b = -0.04, z = -0.30, p = 0.77$). These findings show that the beliefs stressing the role of selection of schools and teachers are negatively associated to the support for formative assessment, which is mediated by the reduced belief that formative assessment follows an equality/need-based justice principle.

Following the same logic as presented for the normative assessment, we tested the effect of the order of presentation of the assessment methods. The multi-group SEM analyses revealed that the structure of the latent variables was similar in the two orders of presentation [$\Delta \text{SBS-}\chi^2(14) = 11.68, n.s.$], as was



the structural relationships between the function of education, justice beliefs and support for the formative assessment [Δ SBS- χ^2 (6) = 10.34, n.s.].

Discussion

The present study intended to uncover the beliefs about the functions of educational institutions, in particular the educational and selection functions, that may predict support for normative and formative assessment methods, since the type of assessment used has been found by previous research to either accentuate or attenuate social inequalities. To this effect, we used a questionnaire that allowed studying the relationships between the perceived function of the educational institution, the support for assessment practices, and the justice principles underlying these practices.

Our first hypothesis was that believing in the schools' function of selection should be positively associated to the support for normative assessment practices, a relationship that should be mediated by the perception that normative assessment follows an equitarian principle of justice. In support to this hypothesis, we found that believing that the school's role is to select the best students was positively associated to the support for normative assessment, a method known to be less favorable to lower status students. This relationship was indeed explained by the beliefs that such an assessment relies on an equity principle, one of the principles founding meritocracy (Son Hing et al., 2011). Our second hypothesis was that believing in the function of selection should be negatively associated to the support for formative assessment practices, a relationship that should be mediated by the reduced perception that formative assessment allows to meet the students' needs and ensures equality of outcomes. The present results supported this hypothesis as well, and showed the expected negative relation between the function of selection and the support for formative assessment, a method favorable to lower status students. This relation was mediated by a reduced perception that formative comments rely on a corrective principle of justice aiming at bringing all the students to a similar level.

Unfortunately, we were unable to test our two hypotheses regarding the educational function of education, due to a ceiling effect and low variance in the variables referring to this construct. This problem is actually quite interesting, to the extent that it is likely to come from the fact that the educational function of school is widely recognized and endorsed, as it corresponds to the official discourse about the role of educational institutions (Darnon et al., 2009). Darnon et al. (2009) investigated the social value of mastery goals, the declared desire to learn and increase knowledge, in an academic context. These authors found that mastery goals are highly valued by students, both in terms of perceived desirability of these goals in the eyes of the teachers and in their perceived utility to succeed in the academic system. Interestingly, Darnon et al. (2009) also found that mastery goals perfectly fit the teachers' discourse: when teachers were asked what goals they promoted in their class, their answers on mastery goals showed a ceiling effect

and low variance. Mastery goals would be widely promoted by teachers precisely because they correspond to the educational function of education. These results and the similarity between the educational function of the educational system (to promote learning and increased knowledge, at the institutional level) and mastery goals (to strive for learning and increased knowledge, at the individual level) lead us to think that explicit questions about educational purposes are infused with social value issues, which will make it difficult for future research to study their link with other variables.

The question of how to partial social value out of the measure of the educational function should be addressed by future research (cf. Dompnier et al., 2013), but for the moment the present results on the function of selection represent an important contribution to the literature on the factors hindering and facilitating changes in the way educational agents perform scholastic and academic assessment. In the present research, we focused on two types of assessment practices: normative assessment, which is the most common method, and formative assessment, which is an alternative method. The cognitive and relational benefits of the latter for learners have been known for years (Black and Wiliam, 1998), and indeed in our own research participants even indicated stronger support for formative than for normative assessment [$t(138) = -2.57, p = 0.01$]. However, this is likely to be due to the high social desirability of focusing on education, as discussed in the previous paragraph, since the use of formative assessment in regular practices is still extremely limited (e.g., Black and Wiliam, 1998). A large body of literature has investigated why changes in assessment practices are difficult (Tierney, 2006). Many studies pointed to technical, political, and structural inhibiting factors, and to the role of teachers' representation of teaching, assessment, learning and students (Hargreaves, 2005; Inbar-Lourie and Donitsa-Schmidt, 2009; Webb and Jones, 2009; Brown et al., 2011). Some proposed that the use of alternative assessment practices is hampered by institutional requirements, as well as the internalization of the institutional norms by the teachers who themselves succeeded in that system (Tabachnick et al., 1979; Hargreaves et al., 2002). Adding to this literature, our research provides empirical evidence that people's endorsement of the function of selection of educational institutions relates to a greater support for the usual (i.e., normative) assessment practices and lower support for unusual (i.e., formative) assessment practices. Our results contribute to understand why, despite the growing evidence that normative assessment is detrimental for learners, change in practices is slow, by highlighting the role of the widespread idea that educational institutions are meant to select the best students. The difficulty to change assessment practices raises the issue of the benefit of normative and formative assessment for learners in general, but it may also have consequences for lower status students in particular. We have already mentioned the literature suggesting that normative assessment restrains the success of lower status students (e.g., Smeding et al., 2013) whereas formative assessment could benefit them (e.g., Bissonnette et al., 2005); consequently, the greater support for normative assessment and the lower support for formative assessment associated with the belief in the function of selection might

result in perpetuating status-based achievement gaps. A possible extrapolation, and a suggestion for future research, is that the idea of a selection operated by educational institutions maintains social inequalities in the access to scholastic and professional opportunities.

Another contribution of the present research relates to justice beliefs. We found that the principle of equity, corresponding to a meritocratic allocation of rewards, positively relates to the support for an assessment method known to hinder the students from disadvantaged groups, namely normative assessment. On the contrary, the corrective justice, corresponding to an egalitarian principle, relates to more support for an assessment method that could benefit to lower status students, namely formative assessment. These findings are consistent with previous research showing that belief in meritocracy predicts support for organizational selection practices that sustain the status quo whereas egalitarian beliefs predict support for practices that challenge the status quo (Castilla and Benard, 2010; Son Hing et al., 2011; Zdaniuk and Bobocel, 2011). This body of research also demonstrated that meritocracy, besides being a justice principle, can serve as a hierarchy-legitimizing ideology. A possible extension of the present work could be to investigate whether the adherence to beliefs related to merit is a way to justify and legitimate the use of assessment practices known to disadvantage lower status students. Moreover, our results showed that such justification is positively associated to the extent to which one is convinced that educational institutions have the function of selecting students. A venue for future research could be to test the idea that bringing people to believe in the importance of selection at school leads to increased meritocratic beliefs that legitimize and maintain the current institutional functioning.

Several limitations of this work must be pointed out. First, the correlational nature of the data prevents from drawing any conclusion about the causal direction of the effects. We built our hypothesis on the idea that structural factors (i.e., functions of educational institutions) would affect beliefs about justice that in turn affect behavioral tendencies in the form of support for practices. Even though the observed relations are consistent with our hypothesis, we cannot claim that the function of selection leads to certain beliefs about justice and support for a specific assessment practice. Future research should manipulate the functions of education. We must note, however, that the problem related to the high social desirability of the educational function mentioned above might also curse such an experimental design, requiring subtle ways of inducing the selection and educational role of education. A second limitation relates to the measure of support for practices. We asked participants whether they would use each assessment method and whether they think they are good, reliable, and precise methods. We thus estimated behavioral intention and evaluation. Measuring actual behavior, for example by asking participants to assess a test, would allow investigating the enactment of these practices. Another limitation is the use of a student sample in this research. They were put in the position of a teacher by being asked to list their supposed daily activities as teachers and

being reminded of their role in the framing of the questions. Research based on role-playing suggests that people are able to adapt their attitudes to a role they have been assigned to (Houston and Holmes, 1975; Covington and Omelich, 1979; Harari and Covington, 1981). A replication of this research with teachers would inform about potential differences between naïve conception of the educational institution and the conception of the agents of this system. Finally, our results apply to the Swiss context. In Switzerland, selection is explicit as children are systematically tracked at a young age (11–12 years old) and grades are supposedly the main criteria to make tracking decisions. Yet, we believe that the theoretical reasoning developed in this paper could be transposed to most educational systems in Western societies. Indeed, even if the function of selection of schools might be less explicit and practices may vary in different socio-cultural contexts, some form of selection is operated by most educational institutions (OECD, 2013b). For example, students can be grouped by ability, be granted/refused access to honor courses, have to pass competitive exams or selection might be operated at the admission stage (e.g., Sommet et al., 2013). Future research should investigate how various forms of assessment practices relate to justice principles and functions of education in contexts in which the function of selection is less explicit and systematic.

Conclusion

Modern educational institutions have developed to become the warrant of a meritocratic society. Generalized access to education, and the implementation of supposedly objective measures of individuals' motivations and abilities, were intended to lead to a fair society where desirable outcomes are distributed based on merit (Lemann, 1999; Carson, 2007). Adding to an abundant literature that demonstrated that this ideal is far from being achieved (Goldthorpe, 2003; Duru-Bellat, 2008; OECD, 2010; Walton et al., 2013), our results suggest that people's beliefs in the importance of meritocratic selection relate to a willingness to sustain an institutional functioning, namely normative assessment, that is known to harm underprivileged students.

Author Contributions

FA, AB, and FB conceived and designed the study. FA and AB collected the data and analyzed it under the supervision of FB. FA drafted the manuscript and AB and FB provided critical revisions. All authors approved the final version of the manuscript for submission.

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The student-institution fit at university: interactive effects of academic competition and social class on achievement goals

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As compared to continuing-generation students, first-generation students are struggling more at university. In the present article, we question the unconditional nature of such a phenomenon and argue that it depends on structural competition. Indeed, most academic departments use harsh selection procedure all throughout the curriculum, fostering between-student competition. In these departments, first-generation students tend to suffer from a lack of student-institution fit, that is, inconsistencies with the competitive institution's culture, practices, and identity. However, one might contend that in less competitive academic departments continuing-generation students might be the ones experiencing a lack of fit. Using a cross-sectional design, we investigated the consequences of such a context- and category-dependent lack of fit on the endorsement of scholastically adaptive goals. We surveyed $N = 378$ first- and continuing-generation students from either a more competitive or a less competitive department in their first or final year of bachelor's study. In the more competitive department, first-to-third year decrease of mastery goals (i.e., the desire to learn) was found to be steeper for first- than for continuing-generation students. In the less competitive department, the reversed pattern was found. Moreover, first-to-third year decrease of performance goals (i.e., the desire to outperform others) was found to be steeper within the less competitive department but did not depend on social class. This single-site preliminary research highlights the need to take the academic context into account when studying the social class graduation gap.

Keywords: academic competition, social class, first- and continuing-generation students, achievement goals, student-institution fit, achievement gap

Introduction

In Western culture, higher education institutions ideally aim at ensuring equality of opportunities, that is, selecting impartially the more competent students, independently of their social class. However, they ironically tend to reproduce social inequalities, selecting preferentially the higher-class students (for a review, see Aronson, 2008). As a matter of fact, in comparison with continuing-generation students (for whom at least one parent has a college degree, i.e., the middle/upper class),

first-generation students (for whom neither parent has a college degree, i.e., the lower class) are 68% less likely to earn a college degree after 4 years of college (DeAngelo et al., 2011). This social class graduation gap has been documented in European Union (OECD, 2014; see indicator A4, pp. 84–85) as well as in Switzerland (SKBF, 2014; see pp. 178–179). It is notably explained by a lack of fit between the values of first-generation students and that promoted by universities (for a review, see Stephens et al., 2014b).

Most often, scholars seem to consider first-generation students as unconditionally disadvantaged, and continuing-generation as privileged in the educational system (for a review, see Spiegler and Bednarek, 2013). Yet, one might argue that they only look at one side of the coin. Reasoning in terms of person-environment fit (e.g., Holland, 1959), the degree of one's sense of fit may indeed differ according to the context. For instance, although lower-class students have a lower likelihood to graduate from more competitive colleges, fields, or departments (Aries and Seider, 2005), some evidence suggests that higher-class students are less likely to succeed in less competitive ones (Agan, 2013; see also, Davies and Guppy, 1997; Triventi, 2013; Davies et al., 2014). Additionally, first-generation students are underrepresented in less prestigious departments (e.g., Sciences; Chen and Carroll, 2005), top-tier colleges (Carnevale and Rose, 2003), and elite institutions (Albouy and Wanecq, 2003). But conversely, continuing-generation students are underrepresented (or less represented) in less prestigious fields (e.g., vocational/technical), second-to-fourth-tier colleges, and second-rate institutions. One might argue that these findings translate differences in terms of fit as a function of both social class and academic competition.

With most research describing first- and continuing-generation students as—respectively—“not fitting in” and “fitting in” in absolute terms, we propose a more even-handed approach raising the possibility of a relative lack of fit. Specifically, we suggest a categorical and context-dependent lack of fit might impair the level of endorsement of two academically adaptive achievement goals, namely the desire to learn and that to perform. Within a more competitive department, first-generation students may experience a lower student-institution fit, hindering the pursuit of these goals. Contrariwise, within a less competitive department, continuing-generation students may also experience a lower fit, hindering the endorsement of these same goals.

A Context-Independent View of Social Class and Student-Institution Fit

Let us first consider the relationship between social class and student-institution fit independently of the academic context, that is, the mere correspondence between personal and environmental characteristics (Denson and Bowman, 2014). In addition to economic (i.e., lower financial resources; Desimone, 1999) and social factors (e.g., parenting practices; Guryan et al., 2008), psychological reasons might account for the social class graduation gap. For instance, Bourdieu and Passeron (1977) argued that students from lower social class could experience a discontinuity between their *habitus* (i.e., schemes of perception, thought, and action, inherited from

their socio-cultural background) and the higher-class habits promoted by universities. Such a discrepancy would result in lower achievement (for empirical evidences, see Gaddis, 2013).

More recently, Stephens et al. (2012a) specified the effects of social class on student-institution fit. On the one hand, authors showed that first-generation students regulated their behaviors in keeping with *interdependent* values. They endeavor to adjust themselves to the context, to be connected to others and to respond to others' interests. On the other hand, authors showed that continuing-generation students regulated their behaviors in keeping with *independent* values. They try to influence the context, to be distinct from others, and to satisfy their own needs, preferences, and interests (see also Stephens et al., 2007). Yet, higher education institutions most often convey *independent* norms, according to which students are expected to work independently, to strive for personal achievement, and to express their own views (Greenfield et al., 2000). In these contexts, first-generation students therefore tend to experience a low sense of student-institution fit, whereas continuing-generation students experience a high fit. In a series of articles, Stephens and her colleagues reported that such a reduction in terms of academic fit led first-generation students to feel more stressed (i.e., higher cortisol levels; Stephens et al., 2012b), to obtain lower grades (Stephens et al., 2012a, Study 2), and to achieve lower academic success (Stephens et al., 2014a).

A Context-Dependent View of Social Class and Student-Institution Fit

Let us now consider the variations in the relationship between social class and student-institution fit as a function of the academic context. Most of the studies showing first-generation students' lack of academic fit were conducted in high-ranked competitive universities (see Granfield, 1991). Yet, although most higher education institutions and departments are highly competitive (only a limited number of students are allowed to proceed to the next year), some others are less competitive (see De Paola, 2011). Moreover, whereas the former promote independent values, the latter might promote different values, or—at least—less independent ones. As a matter of fact, Stephens et al. (2012a, Study 1b) reported that university administrators of highly competitive institutions (i.e., top-tier colleges) characterized the values promoted by their university as being *more independent* than the ones of mildly competitive institutions (i.e., second-tier colleges). In the first instance, we will draw on these observations and develop the idea that more vs. less competitive departments differ drastically regarding their (i) institutional culture, (ii) institutional practices, and (iii) institutional identity. Then, we will argue that the relationship between social class and student-institution fit depends on these differences.

Competition and Institutional Culture

As a function of academic competition, departments convey different cultures in terms of excellence and individualism. In more competitive departments, students are encouraged to develop their idiosyncrasies and critical judgment (e.g., in Medicine, Kennedy et al., 2009). As an example, Skelton (2005) urged higher education administrators to “[promote]

the enhancement of the individual student's personal character [and] the development of the individual student's autonomy" (p. 22). Conversely, in less competitive departments, the pursuit of collective goals, rather than individual ones, is emphasized (for the effects of competition on individualistic behaviors, see Barnett and Bryan, 1974). For instance, Vansteenkiste et al. (2006) reported that Education (vs. Business) students were more oriented toward helping others than toward wealth.

Competition and Institutional Practices

As a function of academic competition, departments rely on practices fostering different representations of self- and other-competence. In more competitive departments, where a *numerus clausus* can be established between the first and the second year, only few of the candidates will pass their final exam (Spence, 1981). In such environment, the higher the likelihood that others are selected, the lower the chance one has to succeed (i.e., negative interdependence; for a review on social interdependence theory, see Johnson and Johnson, 2005). Students enrolled in more competitive departments therefore perceive the competence of their classmates as necessarily coming into conflict with their own competence. In other words, others' and self-competences are viewed as negatively correlated. It is less the case for students enrolled in less competitive departments, who view others' and self-competences as uncorrelated (Sommet et al., 2013).

Competition and Institutional Identity

As a function of academic competition, departments imply different changes with regard to social identity, that is, the attitudinal and behavioral adjustments to comply with new institutional norms (Emler, 2005). More competitive departments (e.g., Law, Business, Medicine) are associated with superior reputation and attractiveness than the less competitive ones (James, 2000). As a matter of fact, the more competitive a department, the higher its students' future earnings and socio-economic status (Pascarella and Terenzini, 2005). Thus, for lower-class students, being enrolled in a more competitive department involves a larger *upward social mobility process*. This was notably found to predict psychological discomfort (Iyer et al., 2009). Conversely, for higher-class students, being enrolled in a less competitive department may involve social immobility (i.e., being just as successful as one's parents) or *downward social mobility process* (i.e., not being as successful as one's parents; see Stocké, 2007), which could result in status insecurity (Wilkinson and Pickett, 2008).

Academic Competition, Social Class, and Student-Institution Fit

What conclusion regarding social class and student-institution fit can be reached from the fact that institutional culture, practices, and identity depend on academic competition? On the one hand, in more competitive departments, first-generation students' values of *positive interdependence* should be more incongruent with institutional *individualistic* culture and *more negatively interdependent* practices than continuing-generation students' values. Moreover, they should experience a stronger feeling of incompatibility between their socio-familial identity, their new

institutional identity, as well as with their future possible identity (i.e., more elevated status; for examples, see Reay et al., 2009, 2010; Lee and Kramer, 2013).

On the other hand, in the more specific case of less competitive departments continuing-generation students' values of *independence* might reciprocally appear as more incongruent with institutional *collectivistic* culture and *less negatively interdependent* practices than first-generation students' values. It is also legitimate to think that, in this case, their socio-familial identity might conflict with both their institutional identity and their future socio-economical identity (i.e., less elevated status). Such a lack of identity-related fit would occur to the extent that students perceive themselves as being engaged in a downward mobility process (Hurrelmann et al., 1988). In the present study, we will specifically focus on students' endorsement of academically adaptive goals as a function of such a context- and category-dependent lack of fit.

Student-Institution Fit and Achievement Goals Regulation

Achievement goals theorists distinguish two non-exclusive reasons for engaging in competence-relevant behaviors, namely mastery and performance goals. Mastery goals relate to the desire to personally progress, to surpass oneself, whereas performance goals pertain to the desire to relatively succeed, to surpass others (for a historical review, see Elliot, 2005). Mastery goals predict persistence after failure (Dweck and Leggett, 1988), intrinsic motivation (Rawsthorne and Elliot, 1999) and task-commitment (Poortvliet and Giebel, 2012). Performance goals predict performance, be it in experimental (Elliot et al., 2005) or field settings (Barron and Harackiewicz, 2003). In the late 90s, adopting a multiple goals perspective, Judith Harackiewicz and her colleagues (for a review, see Senko et al., 2011) showed that an elevated degree of both mastery *and* performance goals corresponded to an adaptive pattern of achievement-related behaviors. Endorsed conjointly, these goals allow the maintenance of optimal degrees in task interest (e.g., reduced intention to drop-out from university; Fasching et al., 2011) and performance (e.g., elevated course grades; Hulleman et al., 2010).

Mastery and performance goals are not merely stable traits (Fryer and Elliot, 2007), but may also be regulated in response to environmental factors (Senko and Harackiewicz, 2005). As a matter of fact, students enter in higher education holding high mastery goals (Meier et al., 2013), but these goals tend to decline over the course of the curriculum (for a meta-analytic summary, see Corker et al., 2013). Such a decline is explained by the fact that many of the students become aware of the distance between their idealistic expectations and the reality of the courses (Lieberman and Remedios, 2007). However, performance goals tend to remain more stable, although similar discrepancy between one's resources and task demands predicts their decline (Kumar and Jagacinski, 2011).

Hence, it does not come as a surprise that student-institution fit is predictive of the maintenance of an elevated degree of mastery and performance goals (see Eccles and Roeser, 2009). Generally speaking, the incongruence between student's

beliefs and the perception of their environment was found to deplete motivation (Byrd and Chavous, 2012), various kinds of needs (e.g., achievement; Harms et al., 2006), and the level of goals endorsement (Greguras et al., 2014). More specifically, a higher sense of match between individual preferences or values and environmental requirements or culture sustains task commitment, a mastery goal-related outcome (Blau, 1987; O'Reilly et al., 1991), as well as a high level of relative performance, a performance goal-related outcome (Goodman and Svyantek, 1999; Greguras and Diefendorff, 2009).

Overview and Hypotheses

As suggested in the opening paragraphs, first-generation students are less likely to succeed and to be represented in more competitive academic environments, whereas continuing-generation students are less likely to succeed and to be represented in less competitive ones. It reflects the fact that first-generation students may experience a discrepancy between their and the more competitive institutions' culture, practices, and identity. As a theoretical extension, the same might be true for continuing-generation students in less competitive departments. In the present article, we argue that this relative lack of student-institution fit as a function of social class *and* competition should predict the decrease in the endorsement of mastery and performance goals. We therefore formulate two hypotheses. In a more competitive department, first-generation students should report lower mastery (hypothesis 1a) and performance (hypothesis 2a) goals in the third than in the first year; it should not be the case for continuing-generation students. Conversely, in a less competitive department, continuing-generation students should report lower mastery (hypothesis 1b) and performance goals (hypothesis 2b) in the third than in the first year; it should not be the case for first-generation students.

Materials and Methods

The study used a 2 (less vs. more competitive department) \times 2 (lower vs. higher social class) \times 2 (first vs. third academic year) cross-sectional design. First, the sample included undergraduates from a more and a less competitive department. In the former, namely Life Sciences, the first-to-second year passage appears to be more selective; in the latter, namely Civil Engineering, the selection is weaker (see Pilot Study). Second, first-generation students were distinguished from continuing-generation students. Lower social class students were those having no college-graduated parent, whereas higher social class students were those having at least one college-graduated parent (for a similar operationalization, see Stephens et al., 2012b). Finally, both first- and final-year Bachelor's degree students were surveyed in order to observe the evolution of their achievement goals. The questionnaire assessed both mastery and performance goals, that is, both the will to learn and to outperform others.

Participants and Procedure

Three hundred and eighty-eight undergraduates from a French-speaking Swiss university (EPFL, that is, the Swiss Federal Institute of Technology in Lausanne) filled in a paper-and-pencil

questionnaire presented as a research on "the motivational profile of students." Ten observations were excluded due to missing values. The final sample was composed of $N = 378$ students, 153 females and 222 males (three missing values), with a mean age of 20.01 years ($SD = 1.72$).

Academic competition was operationalized through a difference in the selection process between two departments of the university: Civil Engineering ($n = 179$) and Life Sciences ($n = 199$). Such a difference is both objective (i.e., average success rate) and subjective (i.e., perception). First, the two departments vary in terms of examination passing rates: The first-to-second year average success rate for the five academic years preceding the study was more than half for Civil Engineering ($M = 58.51\%$, $SD = 4.41\%$), whereas it was less than half for Life Sciences ($M = 44.01\%$, $SD = 4.99\%$)¹. As compared to the average success rate of the whole EPFL ($M = 50.53\%$; $SD = 0.84\%$), that of Civil Engineering was higher, indicating a less competitive environment, and that of Life Sciences was lower, indicating a more competitive environment. Second, a Pilot Study aimed at confirming that students perceived Life Sciences as being more competitive than Civil Engineering. Sixty-one second-year undergraduates, mainly students of other departments but from the same institution as that of the main study, were surveyed. Seven missing observations and two outliers ($|SDR| > 3.44^2$) were excluded from the analyses. The final sample comprised $N = 52$ students (i.e., four from Civil Engineering, four from Life Sciences, and 44 others), 23 women and 29 men ($M_{Age} = 20.49$, $SD = 1.66$). On a scale ranging from 1 ("not at all") to 7 ("completely"), participants were asked to evaluate the extent to which Civil Engineering was a selective department, promoted between-student competition, and enrolled competitive students. The same three questions were repeated for Life Sciences. The order between the two sets of items was counterbalanced. The two scales showed a satisfactory reliability ($\alpha > 0.70$). Regression analyses tested the difference in terms of perceived competition between Civil Engineering and Life Sciences. Participants' academic affiliation as well as order of item presentation were statistically controlled. As expected, results revealed that the two departments were perceived as differently competitive, $B = 0.56$, $SE = 0.22$, $F(1, 48) = 6.45$, $p = 0.014$, $\eta_p^2 = 0.12$. Life Sciences were judged as being more competitive ($M = 4.61$, $SE = 0.26$) than Civil Engineering ($M = 4.05$, $SE = 0.20$). In other words, the two departments were objectively and subjectively perceived by students of the EPFL as different in terms of competition.

Change in achievement goals was appraised using a cross-sectional design; we surveyed both first-year ($n = 279$) and third-year students ($n = 99$). As mere social class was not found to significantly predict freshmen's mastery and performance goals (Jury et al., 2015a, Studies 1–3), students having just entered university constituted a control group. As identifying, interpreting, and responding to lack of student-institution fit are long-term processes (Caldwell et al., 2004), students in their final year before bachelor's degree graduation constituted the group in which changes were expected. Data were collected in agreement

¹Source: <http://ogif.epfl.ch/>

² $|SDR|$ refers to absolute Studentized Deleted Residuals.

with the Swiss Psychological Society's ethical guidelines³. No experimental manipulation was performed. No incentive (nor credits neither money) was given for participation. Participants were informed that the questionnaire was anonymous and that they could refuse to do it and withdraw from participation at any time.

Variables

Social Class

Participants reported the highest educational level attained by their parents using Genoud's (2011) seven-choice scale⁴. As in prior research (e.g., Somers et al., 2004), participants were categorized as first-generation students when neither of their parents had a college degree ($n = 101$) and as continuing-generation students when at least one of their parents had a college degree ($n = 277$). **Table 1** shows the number of participants as a function of the three independent variables considered.

Achievement Goals

Participants reported their goals using the French validation of Elliot and McGregor's (2001) Achievement Goal Questionnaire (Darnon and Butera, 2005) on a scale ranging from 1 ("not at all") to 7 ("completely"). Three items measured their mastery-approach goals (e.g., "I want to learn as much as possible from the classes") and three others performance-approach goals (e.g., "It is important for me to do better than other students"). A summary of descriptive statistics and correlations is presented in **Table 2**.

Results

Overview of the Regression Analyses

Multiple linear regression analyses were conducted with the department (coded -0.5 for less competitive, i.e., Civil Engineering, and $+0.5$ for more competitive, i.e., Life Sciences), the academic year (coded -0.5 for first-year students and $+0.5$ for third-year ones), as well as the social class (coded -0.5 for first-generation students and $+0.5$ for continuing-generation ones) as independent variables, with mastery and performance goals as dependent variables.

Complete analyses of covariance was conducted in preliminary stage (Yzerbyt et al., 2004), with gender (coded -0.5 for women and $+0.5$ for men) and mean-centered age. As including these terms did not produce significant effects on any of the outcome variables, they were not retained in the analyses. The final model contained seven predictors: the department, the academic year, the social class and all interactions. A summary of the results is displayed in **Table 3**.

Mastery Goals

Analyses revealed a significant interaction between the department, the academic year, and the social class on mastery

TABLE 1 | Number of participants as a function of the department, the academic year and the social class.

	Life Sciences (more competitive)		Civil Engineering (less competitive)	
	First year	Third year	First year	Third year
First-generation	36	18	31	16
Continuing-generation	103	42	109	23

TABLE 2 | Cronbach's alpha, mean, standard deviation, and correlation among study variables.

	α	M	SD	Correlations		
				1	2	3
1. Social class	n/a	n/a	n/a	—		
2. Mastery goals	0.78	5.08	1.18	0.01	—	
3. Performance goals	0.90	3.54	1.61	0.08	0.26*	—

* $p < 0.01$.

TABLE 3 | Regression coefficients for the models testing the effects of department, academic year, and social class on mastery and performance goals.

	Mastery goals			Performance goals		
	B	SE	η_p^2	B	SE	η_p^2
Intercept	4.96**	0.07	0.92	3.36**	0.10	0.75
Department	0.04	0.15	—	0.20	0.20	—
Academic year	-0.52^{**}	0.15	0.03	-0.47^*	0.20	0.01
Social class	-0.03	0.15	—	0.20	0.20	—
Department \times academic year	-0.31	0.30	—	1.05^*	0.41	0.02
Department \times social class	0.54^\dagger	0.30	0.01	-0.09	0.41	—
Academic year \times social class	0.03	0.30	—	0.02	0.41	—
Department \times academic year \times social class	1.92^{**}	0.60	0.03	0.26	0.82	—

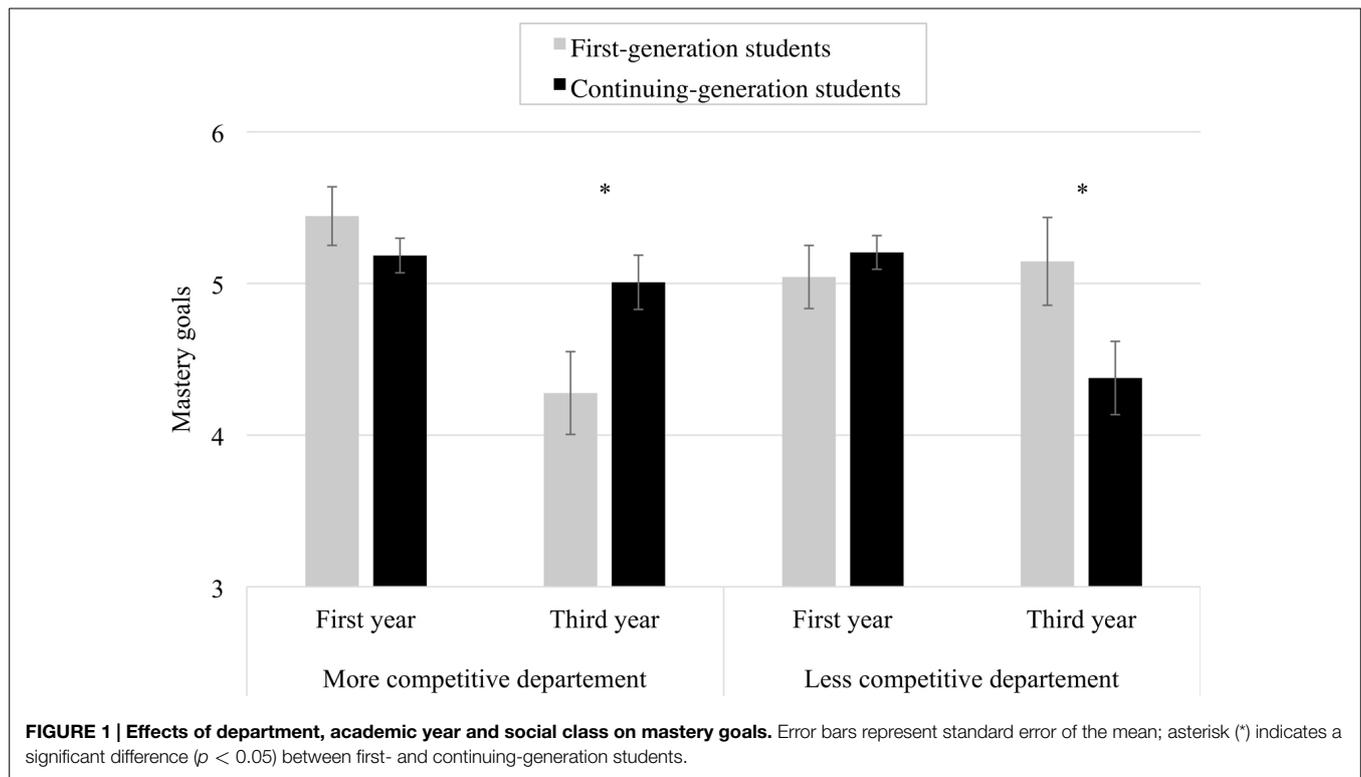
* $p < 0.05$; ** $p < 0.01$; $^\dagger p < 0.1$.

goals, $B = 1.92$, $SE = 0.60$, $F(1, 370) = 10.43$, $p = 0.01$, $\eta_p^2 = 0.03$ (see **Figure 1**). It indicated that the interactive effects between the academic year and the social class depended on the department. This interaction was decomposed by first examining the more competitive department (hypothesis 1a) and then the less competitive one (hypothesis 1b).

First, in the more competitive department, the interaction between the academic year and the social class was significant, $B = 0.99$, $SE = 0.40$, $F(1, 370) = 6.25$, $p = 0.013$, $\eta_p^2 = 0.02$. Results confirmed that first-generation students reported lower mastery goals when in the third year than when in the first one, $B = -1.16$, $SE = 0.33$, $F(1,370) = 12.18$, $p < 0.001$, $\eta_p^2 = 0.03$. In other words, within the more competitive department, first-generation

³http://www.ssp-sgp.ch/06_pdf/Code_deontologique.pdf

⁴The seven choices were as follows: (i) less than compulsory school; (ii) compulsory school; (iii) apprenticeship; (iv) secondary school vocational diploma; (v) secondary school general diploma; (vi) advanced professional education; (vii) university; (viii) other (to specify in an open-ended question).



students' mastery goals tended to decrease from the university entrance ($M = 5.44$, $SE = 0.19$) to the final year of study ($M = 4.28$, $SE = 0.27$). In line with the existing literature, these results suggest that first-generation students experience a particular discrepancy between their self and the competitive academic environment, impairing their willing to learn. Conversely, the effect of academic year was not different from 0 for continuing-generation students, $B = -0.18$, $SE = 0.21$, $F < 1$. Continuing-generation students' mastery goals did not decrease between the first ($M = 5.18$, $SE = 0.11$) and the third year ($M = 5.01$, $SE = 0.18$).

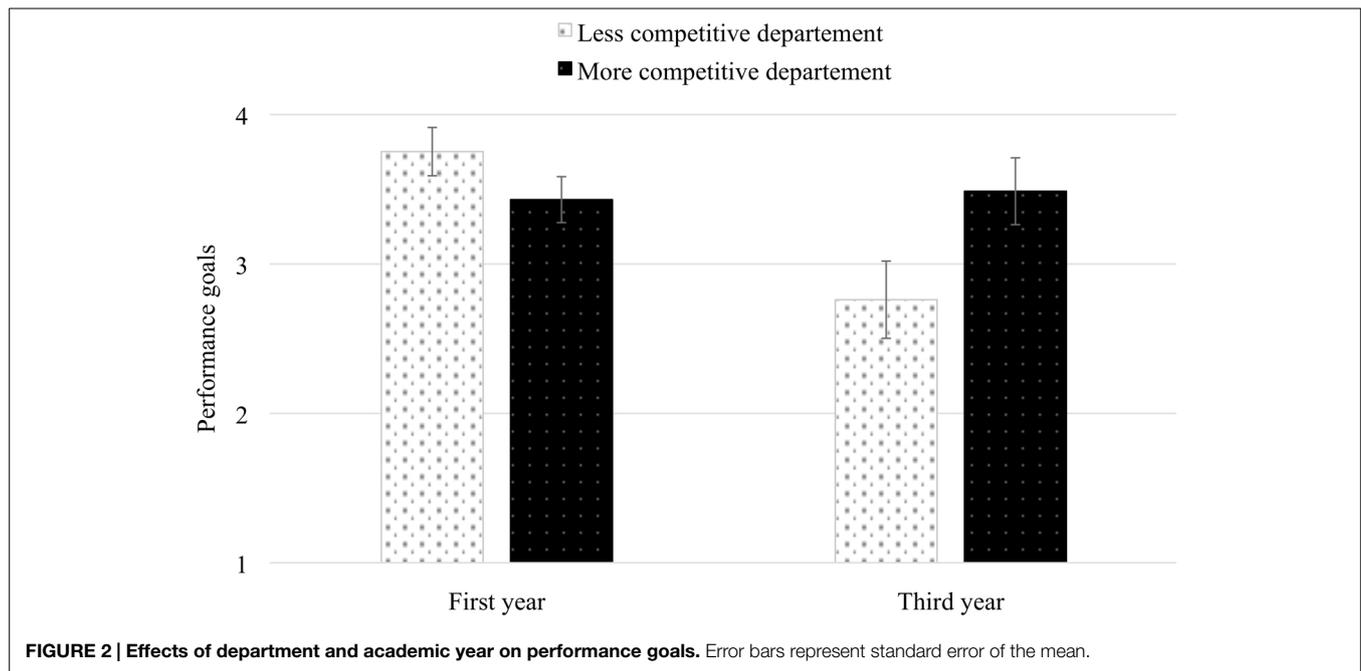
Second, in the less competitive department, the interaction between the academic year and the social class was also significant, $B = -0.93$, $SE = 0.44$, $F(1, 370) = 4.37$, $p = 0.037$, $\eta_p^2 = 0.01$. Compared to the previous analysis, the results were reversed. Indeed, in this department, first-generation students' mastery goals endorsement did not decrease between the first ($M = 5.04$, $SE = 0.21$) and the third year ($M = 5.15$, $SE = 0.29$), $B = 0.10$, $SE = 0.36$, $F < 1$. As first-generation students maintained an elevated degree in such a context, it conveys the idea they may not be unconditionally disadvantaged in the educational system. Conversely, continuing-generation students reported lower mastery goals when in the third year than when in the first one, $B = -0.82$, $SE = 0.26$, $F(1,370) = 9.73$, $p = 0.002$, $\eta_p^2 = 0.03$. In the less competitive department, continuing-generation students' mastery goals tended to diminish from the university entrance ($M = 5.20$, $SE = 0.11$) to the last year ($M = 4.38$, $SE = 0.24$). This result leads into thinking that in less competitive environment continuing- rather than first-generation students are those who face the motivational consequences of a lack of student-institution fit.

Taken together, such findings sustain both ideas that first-generation students might not always have to struggle at university and that continuing-generation students might not always be favored by the academic context. Indeed, continuing-generation students could also experience a discrepancy between their self and the less competitive environment, which can deplete their desire for improvement and learning.

Performance Goals

For performance goals, analyses did not reveal a significant second-order interaction between the department, the academic year, and the social class, $B = -0.26$, $SE = 0.81$, $F < 1$. Contrary to our second hypothesis, the interactive effects between the academic year and the social class did not depend on the department.

However, the first-order interaction between the department and the academic year was significant, $B = 1.05$, $SE = 0.41$, $F(1, 370) = 6.60$, $p = 0.011$, $\eta_p^2 = 0.02$. As can be seen in **Figure 2**, in the less competitive department, performance goals were lower in the third year than in the first one, $B = -0.99$, $SE = 0.30$, $F(1, 370) = 10.56$, $p = 0.01$, $\eta_p^2 = 0.03$. Regardless of social class, for students enrolled in the less competitive department, performance goals decreased from university entrance ($M = 3.75$, $SE = 0.16$), to the final year of study ($M = 2.76$, $SE = 0.26$). In the more competitive department, such an effect was not observed, $B = 0.16$, $SE = 0.27$, $F < 1$. Indeed, whatever the social class, performance goals did not change between the first ($M = 3.43$, $SE = 0.15$) and the third year ($M = 3.49$, $SE = 0.22$). As the endorsement of performance goals is indicative of a more competitive environment, these findings confirmed that



Life Sciences were characterized by a more elevated degree of between-student competition than Civil Engineering.

Discussion

Most research on social inequalities in higher education described first-generation students as “not fitting in” and continuing-generation ones as “fitting in,” independently of their academic environment. Such a weighed tendency might be due to two reasons. Firstly, most academic contexts are highly competitive (see Davies and Hammack, 2005), therefore specifically impairing the lack of fit of first-generation students. Secondly, most social scientists’ goals are to reduce social inequalities (see Dompnier et al., 2008, p. 250), therefore willing to bolster up the lack of fit of first-generation students. However, universities being heterogeneous in terms of culture, practices and identity (Guimond and Palmer, 1996), the student-institution fit-based approach implies that in less competitive contexts, continuing-generation students might also experience comparable self-institution discrepancies. The present study aimed at testing the effects of such a category- and context-driven lack of fit on the endorsement of two academically adaptive achievement goals (Harackiewicz et al., 2002)⁵. Congruent with our first

⁵In this article we refer to mastery and performance goals in their approach form, as we aimed at focusing on the academically *adaptive* achievement goals (Kaplan and Flum, 2010). However, these goals might include an avoidance component and become more *maladaptive* (Murayama et al., 2012; for an illustration of the effects of social class on performance-avoidance goals, see Jury et al., 2015a). It is worth noting for the sake of transparency that three items assessing mastery-avoidance goals (e.g., “I worry that I may not learn all that I possibly could in classes”; $\alpha = 0.75$, $M = 4.31$, $SD = 1.33$) and three performance-avoidance goals (e.g., “My goal in classes is to avoid performing poorly”; $\alpha = 0.67$, $M = 4.15$, $SD = 1.43$) were added for exploratory purpose. We carried out the same analyses on mastery- and performance-avoidance goals. The results revealed only two significant effects, namely two main

hypothesis, in a more competitive department, first-generation students reported lower mastery goals when in third than when in first year (hypothesis 1a); it was not the case for continuing-generation students. Conversely, in a less competitive department, continuing-generation students reported lower mastery goals when in third than when in first year (hypothesis 1b); it was not the case for first-generation students. However, incongruent with our second hypothesis, such an interaction effect was not observed for performance goals. Let us see how these results contribute to connecting the literature on social inequalities and that on achievement goals, by first considering mastery goals, and then performance goals. We will then discuss some practical implications.

Theoretical Contribution Regarding Mastery Goals

In the more competitive department, over the course of their bachelor’s study, first-generation students’ mastery goals were found to diminish to a greater extent than those of continuing-generation students. Yet, we have seen that at university mastery goals actually relate to drop-out intentions (Fasching et al., 2011). Hence, taking low mastery goals as a drop-out risk factor (for a review, see LaCombe, 2007, pp. 46–48), such a result might provide a goal-based explanation for the fact that first-generation students are much more likely to leave from more competitive institutions than continuing-generation ones (see Bowen and Bok, 1998). More generally, it might account for the lack of social class diversity in more competitive universities (Lohfink and Paulsen, 2005).

negative effects of academic years on the former, $B = -0.91$, $SE = 0.16$, $F(1, 370) = 30.91$, $p < 0.001$, and on the latter goals, $B = -0.39$, $SE = 0.18$, $F(1, 370) = 4.54$, $p = 0.034$. Both the importance of mastery- and performance-avoidance goals diminished in the third year compared to the first year.

In the less competitive department, over the course of their bachelor's study, continuing-generation students' mastery goals were found to diminish to a greater extent than those of first-generation students. Once again, taking low mastery goals as a drop-out risk factor, such a result might provide a goal-based explanation for the disappearance of the social class attrition rate in less competitive institutions (e.g., community college, Fike and Fike, 2008). Moreover, it might explain why continuing-generation students tend to flee from less prestigious colleges (Reay et al., 2005) and to transfer to another institution when their needs are not satisfied (Herzog, 2005) or when they can benefit from an informal career opportunity requiring no given level of education (Mangino, 2012).

Theoretical Contribution Regarding Performance Goals

As compared to the more competitive department, in the less competitive department, performance goals showed a steeper first-to-third year reduction. Generally speaking, it pertains to the fact that structural competition—in that it fosters social comparison—favors the endorsement of performance goals (Murayama and Elliot, 2012), whereas the perception of a climate not emphasizing relative performance predicts their diminution (Wolters, 2004). However, social class was not found to influence the effect of academic competition on performance goals regulation, revealing unexpected variations in the relationship between student-institution fit and achievement goals. Yet, we have seen that performance goals are related to higher academic grades (Hulleman et al., 2010). Hence, taking low performance goals as a low-grade risk factor (for a review, see LaCombe, 2007, pp. 48–50), such a null finding may echo the inconsistent effects of social class on grades (for a review, see Spiegler and Bednarek, 2013, p. 327).

In sum, from a goal-based perspective, these findings seem to suggest that the social class graduation gap—be it context-dependent or -independent—might be explained by (i) a misfit-driven lack of learning-focus (i.e., mastery goals), *rather than* (ii) a misfit-driven lack of success-focus (i.e., performance goals). As a matter of fact, the social class graduation gap is accounted by a series of epistemic causes, namely lower interest in extracurricular activities (Terenzini et al., 1996), lower time-investment (Inman and Mayes, 1999), or lower self-efficacy (Hellman, 1996). Research should be undertaken to test the specific role of mastery goals in explaining the effects of competition and social class on drop-out and on grade.

Practical Implications

In the last years, scholars proposed various recommendations and/or developed several interventions intended to reduce the misfit-driven social class achievement gap. Some of them are institution-focused, that is, at a macro-level, such as need-based financial aids (Destin and Oyserman, 2009). However, some others are student-focused, that is, at a micro-level, such as personal value affirmation (Harackiewicz et al., 2014). How do our results inform on the goal-related potential consequences of these two approaches?

Amongst the institution-focused approaches, as the social class achievement gap is notably attributed to “the increasing competitiveness among prospective students” (Astin and Oseguera, 2004, p. 338), some scholars urged faculty members to reduce competition (e.g., Milem et al., 1998; see also Attewell, 2001; Maroy, 2004; Alon, 2009; Smeding et al., 2013). Extending the present results, one might suspect that change in structural policies aiming at lessening competition might have ironical effect. Although reducing competition could be beneficial for the maintenance of first-generation students' mastery goals, it could impair that of continuing-generation ones (for similar effects with gender, competition and performance, see Ors et al., 2013). In a way, Spencer and Castano's (2007) results can be linked to this rationale. Indeed, by minimizing the evaluative dimension of a task (presenting it as non-diagnostic of intelligence), authors demonstrated that lower class students experienced less threat (see also Jury et al., 2015b), but that upper-class students experienced less challenge. Yet, the hypothesis of the potential perverse role of competition reduction on goals, in that it could undesirably impair mastery goals within the dominant group, remains to be formally tested. Before that additional empirical data confirm or infirm it, relying on student-focused approaches aimed at ensuring social equality between first- and continuing-generation students might be less hazardous. As a matter of fact, Stephens et al.'s (2014a) difference-education intervention—in which students learn about the potential consequences of social class—was found to eliminate first-generation students' disadvantage without affecting continuing-generation students (for another example of knowledge-based intervention, see Johns et al., 2005).

Limitations

Two limitations of the present study should be acknowledged. First, the cross-sectional design of our study does not allow to formally distinguish whether a (self-)selection process or a socialization one accounts for the results (Bachman et al., 1987). In other words, it is not possible to determine if students oriented toward mastery goals drop out when suffering from a lack of fit or if the ones suffering from a lack of fit abandon their mastery goals over time. However, as observable in **Table 1**, the first-to-third year diminutions of the number of first-generation students are virtually similar from one department to the other, indicating that different attrition rates could less parsimoniously explain the effect than a genuine change in goals. The same reasoning might apply to continuing-generation students, although the diminutions are somewhat more different. Still, given the cross-sectional nature of the present study, together with the fact that the number of observations in some cases is rather small (for third-year first-generation students), the present findings need to be replicated. Future research might employ a longitudinal design to more directly measure the evolution of students' achievement goals. Alternatively, scholars might be willing to use publicly available large-scale data sets (e.g., National Longitudinal Survey of Youth, see Center for Human Resource Research [CHRR], 1994) to examine whether structural competition indeed moderates social class graduation gap.

Second, the use of different departments of the same academic institution as a proxy of competition creates a weakness for internal validity. Yet, it must be stressed that, in addition to structural differences in terms of selection, the Pilot Study showed that Life Sciences were indeed perceived as being more competitive than Civil Engineering. Such a difference was confirmed by the fact that third-year students enrolled in Life Sciences reported higher performance goals than those in Civil Engineering. However, one cannot exclude that the results could be due to a confounding variable (e.g., a field-specific academic socialization). Indeed, the present study should be considered as a single-site case study. Future research should manipulate competition in order to exclude possible confounds and draw causal conclusions.

Conclusion

Adopting an even-handed approach (Duarte et al., 2014), this article reports preliminary evidence of a context-dependent effect of social class on mastery goals. On the one hand, first-generation students were argued to suffer from a particular lack of fit when enrolled in more competitive domains, which was found to prevent the maintenance of an optimal level of mastery goals. On the other hand, continuing-generation students were argued to suffer from a particular lack of fit when enrolled in less competitive domains, which was found—here also—to impair their mastery goals.

In other words, first-generation students—in addition to having lower degree aspiration (Zhang, 2005)—might

be less likely to be learning-oriented and to persist when engaged in more competitive institution-driven upward mobility. Conversely, continuing-generation students—in addition to having higher degree aspiration (Chen and Carroll, 2005)—might be less likely to be learning-oriented and to persist when engaged in less competitive institution-driven (potential) downward mobility. A promising avenue for future scaled-up research would be testing whether these two complementary dynamics contribute to maintain the transmission of social inequalities from one generation to the next.

Author Contributions

NS conceived and designed the study, collected the data, and analyzed it on the supervision of AQ and MJ. NS drafted the manuscript and AQ, MJ, and GM provided critical revisions. All authors approved the final version of the manuscript for submission.

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Museum spaces as psychological affordances: representations of immigration history and national identity

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The present research draws upon a cultural psychological perspective to consider how psychological phenomena are grounded in socio-cultural contexts. Specifically, we examine the association between representations of history at Ellis Island Immigration Museum and identity-relevant concerns. Pilot study participants ($N = 13$) took a total of 114 photographs of exhibits that they considered as most important in the museum. Results indicate that a majority of the photographs reflected neutral themes ($n = 81$), followed by nation-glorifying images ($n = 24$), and then critical themes that highlight injustices and barriers faced by immigrants ($n = 9$). Study 1 examines whether there is a preference for glorifying images, and if that preference is related to cultural-assimilationist conceptions of national identity (i.e., defining American identity in dominant group standards). We exposed a new sample of participants ($N = 119$) to photographs reflecting all three themes. Results indicate that participants expressed greater liking for glorifying images, followed by neutral images, and critical images. National identity moderated within-subject variation in liking scores. Study 2 included 35 visitors who completed a survey before engaging with the museum or after their visit. Results indicate that participants who had completed their visit, compared to participants who had not entered the museum, reported (i) higher endorsement of cultural-assimilationist identity, and (ii) increased support for exclusive immigration policies. Study 3 exposed participants ($N = 257$) to glorifying, critical, or neutral images. Results indicate that participants who were exposed to glorifying images, especially those endorsing cultural-assimilationist identity, demonstrate decreased perception of current-day racial injustice, and increased ethnocentric enforcement bias. We discuss how engagement with privileged narratives may serve dominant group ends and reproduce systems of privilege.

Keywords: collective memory, identity, perception of racism, cultural psychology, assimilation

Introduction

In 2010, Arizona Governor Brewer signed two controversial bills into law. One bill (ArizonaHB 2281) enacted a ban on any courses that promoted “ethnic solidarity instead of treatment of pupils as individuals” or “resentment toward a race or class of people” among other things. Primarily focusing on Mexican-American, African-American, and Native-American history and literature courses, the

ban embodies tendencies to associate mainstream education practices as “neutral” or “standard” while marking courses with race-conscious material as “ethnic,” “other,” and problematic. One of the most vocal proponents of the ban, Arizona State Schools Chief Tom Horne, claimed Mexican-American Studies “teach Latino students that they are oppressed by white people” (Cooper, 2010) when they should be “teaching these kids to be patriotic American citizens” (Ingram, 2014). As such, courses in Tucson’s largest school district were suspended because the race-conscious Mexican-American history textbooks were deemed non-compliant (Biggers, 2012). The other noteworthy bill signed during the same year (Arizona SB 1070) mandated stricter enforcement and policing of illegal immigration. The law required police officers (during routine stops, detentions, and/or arrests) to interrogate a person’s immigration status when there was “reasonable suspicion” that the person was unlawfully residing in the United States. Opponents in Arizona feared that the bill would sanction racial profiling and ultimately result in disproportionate harassment and discrimination against Hispanics, regardless of their citizenship status. Reflecting such concerns, Dr. Roberto Rodriguez, professor of Mexican American studies, stated that “the mood here is not anti-immigrant...the racial profiling has little to do with legalities; it is about the expressed targeting of red-brown Indigenous people” (Rodriguez, 2010).

The juxtaposition of the laws from the opening paragraph provides a contemporary example of how institutions participate both in reproducing desirable cultural narratives about the nation (e.g., excluding representations of cultural “others”) and sanctioning the consequences of not fitting into a particular national identity narrative (e.g., using race/ethnicity in judgments of reasonable suspicion). Taking this example as a point of departure, the present research applies a cultural psychological perspective to examine how cultural representations of a national past reflect and promote particular identity concerns (e.g., national identity, support for identity-relevant policies). By considering the extent to which “preferred” historical accounts reflect and serve dominant-group ends (e.g., White Americans in the U.S.), we also consider how representations of history (e.g., in museum spaces) can reproduce systems of privilege and disadvantage. Applied to the research topic, we conclude by discussing the systemic foundations of racial oppression.

What is a Cultural Psychological Perspective?

While approaches vary (see Kim et al., 2012), the cultural psychology perspective that informs the current work considers psychological processes as forms of “mediated action” (Wertsch and Penuel, 1999). Informed by the works of Vygotsky (1978) and Bakhtin (1981), the concept of mediated action involves two elements: (1) the agent or the person who is doing the acting; and (2) the cultural tools present in the environment and used by the agent to accomplish a given action (Wertsch, 2002). For instance, consider the topic of memory. People can collectively remember a national past through engagement with cultural tools (e.g., museums and history curricula). The process of remembering is thus mediated through engagement with a particular tool present

in the environment, and necessarily requires interaction with a given tool. From this perspective, memory is not limited to the biological underpinnings of brain architecture but also reflected in the social environment and reproduced through cultural practices and tools present in the environment. Similarly, consider the topic of national identity. A cultural psychological perspective suggests that rather than a natural connection to the nation, people construct an experience of national identity (i.e., identify with a nation and members belonging to a nation) based on an imagined community of other members who are distant in time and space. The process of imagination (of a national community) takes place through engagement with cultural tools (e.g., print media; Anderson, 1994). In this way, a cultural psychological approach is not limited to investigations of variation in psychological phenomena across cultural settings. Instead, the more fundamental point of this approach is to examine how apparently “natural” expressions of human psychology (e.g., national identity) require scaffolded engagement with cultural tools (e.g., cultural practices, language) in the environment.

Furthermore, a cultural psychological perspective conceives of these various structures and patterns as cultural products that afford particular psychological experiences. That is, the products are not neutral in creation or subsequent impact. Instead, culture is shaped by people (i.e., product of action) and also shapes people (i.e., conditioning element for future action; Adams and Markus, 2004). In this way, culture and psyche make each other up in a bi-directional relationship of mutual constitution (Shweder, 1995). As shown in **Figure 1**, the top arrow refers to the *psychological constitution of sociocultural worlds*: the extent to which everyday ecologies are not “just natural” or do not develop out of “nowhere,” but are products of human action (Adams and Markus, 2004; Adams et al., 2010). From this perspective, cultural tools (e.g., museum spaces, history curricula) are products of human engagement and action, and may reflect the desires or beliefs of the people who created them. The bottom arrow in **Figure 1** reflects the *sociocultural constitution of psychological experience*: the extent to which tendencies of human experience require engagement with the social context and thereby are not “just natural” or inborn (Adams and Markus, 2004; Adams et al.,

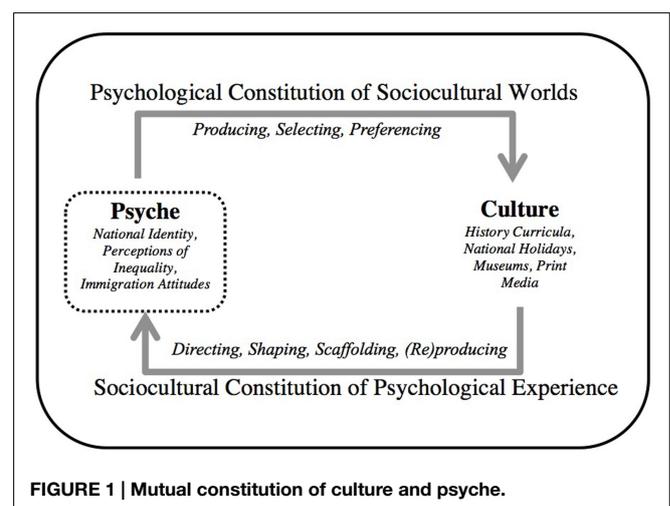


FIGURE 1 | Mutual constitution of culture and psyche.

2010). From this perspective, psychological experiences (e.g., conceptions of immigration history and national identity) require engagement with cultural tools present in any given context.

The present research applies a cultural psychological perspective to examine both aspects of the mutual constitution framework as it applies to the topic of national identity and representations of immigration history. In one direction, and corresponding to the top arrow of **Figure 1** (*psychological constitution of sociocultural worlds*), we consider how conceptions of national identity influence people's engagement with historical representations as well as understandings of present day accounts of injustices. In the other direction, and corresponding to the bottom arrow of **Figure 1** (*sociocultural constitution of psychological experiences*), we consider how representations of history direct subsequent experiences in identity-relevant ways (i.e., national identity and support for policy).

Representations of History: Tools for Regulating National Identity

A large body of work in the social sciences has examined the role of history in constructing and maintaining understandings of nationhood (Kohl, 1998; Reicher and Hopkins, 2001; Wertsch, 2002; Liu and Hilton, 2005). Because people do not have direct access to historical events, their knowledge of such events is mediated by engaging with textbooks (Loewen, 2007; Lackovic, 2011), museums (Rowe et al., 2002; Wertsch, 2007), memorials (Hirst and Manier, 2008), and commemorative practices (Kurtiş et al., 2010). Representations of history provide the scaffolding for conceptions of nationhood and other collective identities. People learn to attend to certain events in a national past, and learn to ignore or minimize other events, as they continuously engage with particular representations of history. Narratives that portray one's group or nation in a positive light are canonized while the nation's wrong-doings are silenced (e.g., Trouillot, 1995). Social psychological research, especially those that draw upon social identity theory and its related self categorization theory (Tajfel and Turner, 1986; Turner et al., 1987; Turner, 1989), suggests that people may be motivated to reinterpret or silence events that reflect poorly on their in-group, and which, by extension, reflect poorly on themselves (Branscombe et al., 1999). Accordingly, representations of history that are aligned with positive identities may be more likely to be (re)produced, compared to those are not aligned with positive identities. Moreover, these representations are in turn the products of prior action, and may also be associated with psychological characteristics of the original actors who produced the representations. Together, these ideas suggest that social representations of history serve as cultural tools in the production and maintenance of positive collective identities.

Within the mutual constitution framework, representations of history and the nation inextricably inform one another. In one direction, historical representations can influence identity-relevant experiences. For instance, reminders of an in-group's past can have implications for how people feel about their group membership. Previous research indicates that reminders of the Holocaust—in particular the harmful actions committed by Germans—influence German participants to feel less positive about

being German, compared to a control condition (Peetz et al., 2010). Historical accounts that highlight accounts of historical injustice and wrongdoing (vs. celebratory accounts of a nation) can influence beliefs about national identification. For instance, researchers have found that exposure to celebratory representations of American Thanksgiving that omitted any mention of historical instances of injustice (i.e., genocide) led to an increase in White American participants' beliefs about national superiority, compared to representations that presented more critical accounts of Thanksgiving and acknowledged genocide (Kurtiş et al., 2010). This suggests that highlighting certain aspects of a historical event can influence people's beliefs about a national community. By influencing national beliefs, historical representations can also play a role in reproducing narratives of conflict within a nation as well as conflict between nations. In an analysis of textbooks in Jewish schools in Israel, from the mid-1950s to mid-1990s, Bar-Tal (1999) found that most textbooks presented negative stereotypes of Arabs. Bar-Tal suggests that such negative stereotypes can maintain an Anti-Arab discourse in Israel and may contribute toward discriminatory forms of action. Extending this line of work, AL-Haj's (2005) analysis of the revised textbooks, introduced in schools post 1999, indicates no mention of Arab experiences, possibly resulting in a removal of Arab citizens from the imagination of the Israeli community.

Besides "removing" groups of people from a national community (e.g., by not mentioning Arab experiences in history textbooks), representations of history may also have implications for how people respond to past and present-day issues of injustice. Responses to issues of injustice can in turn influence the extent to which individuals support or oppose the allocation of resources aimed at making amends for historical grievances (Sibley et al., 2008). Salter (2010) found that exposure to historical representations that emphasize racial barriers faced by Black Americans led White American participants to perceive a greater influence of current-day racism in American society, and endorse greater support for anti-racism policies, compared to representations that emphasized celebratory achievements of particular individuals (i.e., mainstream representations). Conversely, historical representations that focused on celebratory achievements (vs. historical injustices) promoted White American participants to deny current day issues of racism, and indicate lower support for anti-racism policies. Together, these examples indicate how historical representations can influence people's level of national identification as well as detection of current day accounts of racial injustice.

In the other direction, historical representations are reflective of identity-relevant concerns. People's recollections and engagement with particular accounts of history are associated with their collective identity. For instance, Sahdra and Ross (2007) found that participants who strongly identified (vs. weakly identified) with their religious group recalled fewer instances in which their group perpetuated violence against another religious group. In a second study, the same researchers found that when prompted to strongly identify with their nation, Canadian participants recalled fewer incidents of historical violence in which Canada committed harm/violence against another group, compared to those who were prompted to dis-identify. Thus, people may remember their

past in identity-favorable ways to avoid negative feelings associated with threats to their identity (e.g., experience of collective guilt; Branscombe and Miron, 2004; Wohl et al., 2006). This is especially likely for those who highly identify with their in-group. People who are high in collective identification, compared to low identifiers, may reduce the negative consequences of engaging with in-group transgressions by psychologically distancing themselves from them (Pennebaker and Banasik, 1997), by not acknowledging the negative impacts of in-group transgressions (Doosje et al., 1998), or by shifting their standards of justice so that in-group wrongdoing no longer produces negative feelings such as collective guilt (Miron et al., 2010).

Importantly, people's preferences for various accounts of the historical past may reflect their concerns about maintaining a positive identity. For instance, Kurtiş et al. (2010) found that White American participants who score high (vs. low) on a measure of national glorification indicated a preference for celebratory representations of American Thanksgiving (no mention of genocide) compared to ones that highlighted historical injustice (e.g., genocide). Similarly, Salter (2010) considered how mainstream Black history representations (prevalent in majority-White schools in the U.S.) reflect the preferences of White Americans. Salter (2010) examined Black History month representations in majority-White and majority-Black schools in the U.S., and found that majority-White schools tended to have mainstream celebratory representations while majority-Black schools tended to have representations that illuminated barriers and historical injustices. When exposed to Black history representations—mainstream celebratory representations as well as those highlighting historical injustice—White American participants reported more positive affect, and indicated a greater preference for celebratory representations, compared to representations of historical barriers and injustice. Moreover, the abovementioned effects were most evident among participants who strongly identified as being White American (compared to low identifiers). In sum, the abovementioned examples suggest that preferences for cultural products are aligned with identity-relevant beliefs (e.g., nation glorifying beliefs) present in these representations.

Present Research

The present work examines the bi-directional relationship between national identity and historical representations on immigration. Particularly, it focuses on the *content* of national identity. So far, we have discussed research that illustrate how people—especially those who highly identify with their in-group—reproduce historical narratives that glorify their in-group's past rather than those that highlight historical injustices and wrongdoings. More recently, scholars have considered how the *content* or meaning of national identity may moderate the relationship between strength or *level* of identification and treatment toward out-group. For instance, Smeekes et al. (2012) found that Dutch participants who highly identified with the Netherlands were more supportive of Muslim immigration to the Netherlands when exposed to historical narratives that framed Dutch traditions as being open and tolerant toward diverse religious faith, compared to exposure to narratives that emphasized the

Christian history of the nation. Similarly, the positive relationship between nationalism—belief in national superiority—and support for biased treatment of immigrants was most evident for those participants who strongly endorsed an assimilationist understanding of American identity—the belief that to be truly American one must assimilate to dominant identity standards (Mukherjee et al., 2012). The present research examines a particular conception of national identity—assimilationist national identity—and applies it to the topic of immigration history in the U.S.

In one direction, we consider the extent to which historical representations on immigration are products of human action and reflect national identity concerns. In the other direction, historical representations are not inert end products, but direct experiences toward particular ends (e.g., impact national identity and support for immigration-relevant policies). More specifically, we consider the extent to which representations of American immigration history reflect conceptions of American national identity that serve dominant-group ends.

Immigration Concerns and National Identity: Becoming a “true” American

The issue of immigration has been a topic of much discussion in the U.S. The last 5 years has seen many proposed policy changes, some of which focus on restricting movement of immigrants, possibly targeting those of Hispanic origin (e.g., SB 1070). Public opposition toward immigrants from Mexico and Latin America has often been widespread in the recent years (Pérez et al., 2008; Dovidio et al., 2010).

Without minimizing the role of economic concerns in opposition to immigration (see Valentino et al. (2013) for a review of economic explanations for opposition to immigration), several scholars have illuminated the role of symbolic concerns in understanding issues of immigration. More specifically, scholars have considered how immigrants especially those of Hispanic descent, and constituting the ethnic minority population, may pose a symbolic threat to Anglicized conceptions of American identity (Kinder and Sears, 1981; Zarate et al., 2004; Mukherjee et al., 2013; Yogeewaran and Dasgupta, 2014). Theory and research demonstrate a conflation between U.S. national identity and White racial identity, and endorsement of this race-based national prototype—i.e., American is White—is associated with negative evaluations of ethnic minorities (Sidanius and Petrocik, 2001; Cheryan and Monin, 2005; Devos and Banaji, 2005; Devos et al., 2010; Yogeewaran and Dasgupta, 2010; Huynh et al., 2014). White Americans consider ethnic minorities as less American especially when ethnic minorities fail to conform to dominant identity standards, and emphasize their allegiance toward their ethnic heritage, thereby threatening Anglicized conceptions of national identity (Yogeewaran et al., 2012). Moreover, many Americans perceive Latin Americans as less “American” and question the legality of their presence in the nation (Dovidio et al., 2010). The above line of work suggests that White Americans may support tough stances on immigration to restrict the movement of racial and cultural others to protect against symbolic threats to dominant, Anglocentric constructions of American identity (Mukherjee et al., 2013). Simultaneously, White Americans may

be less supportive of tough stances on immigration that restrict the mobility of people who do not threaten dominant constructs of American identity as White.

Support for the role of symbolic threat in tough stances on immigration comes from our previous research examining the identity correlates of ethnocentric bias in immigration law enforcement. For instance, endorsement of cultural-assimilationist conceptions of identity—the belief that to be “truly” American, one must conform to dominant American values (e.g., speak English)—is associated with punishing law-breaking immigrants but not law-breaking American employers who exploit immigrants (Mukherjee et al., 2012); and punishing law-breaking Mexican immigrants but not law-breaking Canadian immigrants (Mukherjee et al., 2013). This line of work suggests that anti-immigrant sentiments—especially those associated with assimilationist identity conceptions—may be linked with symbolic concerns about national identity, regardless of citizenship status.

Finally, White Americans perceive targets as more American when they conform to Anglo-centric norms (e.g., listen to American rock music, speak English with an “American” accent) compared to those who do not conform (e.g., listen to Mexican Ranchera music or Irish music; speak English with a “Spanish” accent), and perceptions of American-ness mediate participants’ judgments of law enforcement actions. That is, participants consider tough treatment of target (e.g., handcuff the target and detain target for being reasonably suspicious) as justified and fair when the target does not conform to Anglo-centric norms, compared to when the target conforms to dominant norms (Mukherjee et al., 2015). In sum, the above research examples suggest that an Anglicized conceptualization of American identity (i.e., cultural-assimilationist conception of identity) plays a significant role in privileging those who meet identity standards, and disadvantaging those who do not meet identity standards. Moreover, this conception of identity is not equally associated with anti-immigrant sentiments *per se*. Instead, it is associated with negative evaluations of those—citizens and immigrants—who do not conform to Anglicized standards.

Emergence of Identity: A Cultural Psychological Analysis

How do such identity concerns develop and emerge? We draw upon a mutual constitution framework to consider the sociocultural grounding of identity concerns. Specifically, we examine the extent to which conceptions of cultural-assimilationist identity emerge through interactions with historical representations in an immigration museum. We also consider how identity concerns predict preferences for particular historical representations, and regulate people’s experiences with a cultural context (e.g., museum space). Scholars have noted how the history that people encounter in museum spaces, are often similar to what they may have experienced in their formal history education (e.g., in secondary schools; Barton, 2001). Thus, museums can serve as tools of history education and communicate institutional or official historical narratives (e.g., what *should* be remembered; see Rowe et al., 2002). Exposure to selective historical narratives

may in turn inform visitors’ understanding of citizenship (e.g., what it means to be a true American). On the other hand, visitors may selectively engage with historical narratives (e.g., visit a particular exhibit and not visit others) and therefore shape their educational experience at the museum. This selective engagement may also be associated with their pre-existing conceptions of citizenship.

The present research utilizes a multi-method approach to examine the bi-directional relationship between conceptions of national identity and representations of immigration history present at the Ellis Island Immigration museum. In the pilot and Study 1, we consider whether participants are drawn toward particular representations of immigration history: those that glorify the nation and silence experiences of the marginalized cultural “others” versus those that highlight historical injustice and barriers that immigrants, especially those from historically oppressed groups, experience. Moreover, we also consider whether this differential preference—glorifying over historical injustice—is most evident for those participants who endorse cultural-assimilationist conceptions of American identity. Study 2 considers the extent to which engaging with historical representations at the museum space shapes people’s conceptualization of American identity as well as their support for immigration-relevant policies. Finally, Study 3 examines whether exposure to particular types of representations (i.e., nation-glorifying vs. critical accounts of injustice vs. neutral representations) influences identity-relevant experiences (i.e., perception of present-day injustice and support for policies). In the general discussion we consider the extent to which nation-glorifying representations of history serve dominant-group ends. We also identify alternative constructions of history that reflect experiences of the marginalized and promote liberatory outcomes.

Pilot Study

We conducted the initial pilot study in the field to understand what type of museum content visitors to the Ellis Island Immigration Museum at New York City would be most likely to regard as important or noteworthy. Ellis Island is a small island in New York Harbor, located near the Statue of Liberty. It was used as an entry point for approximately 12 million immigrants between 1892 and 1924. More than a 100 million living Americans can trace their roots to an individual who passed through this island. This island became a museum site in 1990 and commemorated “American Immigrant Heritage” (Desforges and Maddern, 2004).

Materials and Method

Participants

Participants included 13 visitors to the Ellis Island Immigration Museum (9 women; $M = 42.09$ years old, $SD = 5.57$) in New York City. Out of 13, 10 people identified as White/Caucasian, 1 person identified as Latino/Hispanic, and 2 people did not respond to this item. Participants included 5 U.S. Born, 6 Non-U.S. Born, and 2 no responses. All participants approached had a digital camera at their disposal.

Procedure

The first and second authors approached 63 participants who were about to enter the museum, and asked them if they would be willing to volunteer for a study that required taking pictures inside of the museum. Thirteen agreed to participate and were asked to take 10 photos of what stood out to them in the museum space (e.g., particular exhibits, certain artifacts, architecture, patrons of the museum). The researchers assured the participants that their photos would not be tied to any identifying piece of information (e.g., name). After completing their visit, researchers digitally transferred the photos from the participants' cameras to an electronic tablet for short-term storage. Participants also completed a short survey to indicate their demographic information (i.e., age, gender, ethnic/racial identity, and nationality).

Coding Photographic Content

To analyze the content of participants' photos, two coders, blind to study hypotheses, used binary coding (yes or no) to indicate whether each photo contained critical themes, glorifying themes, and neutral themes. Critical themes were those that coders considered as focusing on historical injustice and that may make Americans (in general) feel negative (e.g., exclusionary literacy tests, forced migrations, hostility directed toward immigrant groups). Glorifying themes were those that coders considered as focusing on positive and glorifying aspects of history and that may make people in general feel proud of the U.S. (e.g., flag/patriotism, assimilation). Finally, neutral themes were those that coders considered ambiguous and that may not make people feel either positive or negative about being American (e.g., journey, museum neutral, personal/self story). Discrepancies in coding were resolved by a third independent coder. In general, coders had high levels of consensus ($\kappa = 0.88$) on the way they coded the themes within each photograph.

Results and Discussion

The highest frequency count of photos fell into the thematic category of "neutral" ($n = 81$). The second highest frequency count was for photos that were coded as "glorifying" ($n = 24$) and the lowest frequency count was for photos that were categorized as "critical" ($n = 9$). On average, neutral themes ($M = 0.40$, $SD = 0.92$), were more common than glorifying and critical themes ($M = -0.72$, $SD = 0.45$), $F(1, 113) = 77.97$, $p < 0.001$, $\eta_p^2 = 0.41$. Glorifying themes ($M = -0.60$, $SD = 0.81$) were more common (or less uncommon) than critical themes ($M = -0.84$, $SD = 0.54$), $F(1, 113) = 6.41$, $p = 0.013$, $\eta_p^2 = 0.05$.

Out of 114 photographs, U.S. citizens took 90 photos and non-U.S. citizens took 18 photos. Participants who did not indicate their citizenship status took the remaining 6 photos¹. Out of the 90 photos taken by U.S. citizens, 71.1 % was neutral ($f = 64$), 20 % was glorifying ($f = 18$), and 8.9 % was critical ($f = 8$). Out of the 18 photos taken by non-citizens, 77.8 % was neutral ($f = 14$), 22.2 % was glorifying ($f = 4$), and 0 % was critical. It is possible that participants, regardless of citizenship status, tended to take more

glorifying photos, compared to critical photos. Given the small sample size, it is difficult to ascertain the generalizability of this result. Nonetheless, this pattern suggests an interesting avenue for future research.

These results provide partial support for the hypothesis regarding a nation-glorifying bias in engagement with representations of history. Participants took a significantly greater number of photographs of nation-glorifying representations compared to representations that highlighted historical injustices and barriers. However, the precise character of these differences remains unclear. Did participants fail to take many photographs of critical themes because they did not have knowledge about their existence in the museum (e.g., did not visit the exhibit because the museum's audio guide did not direct them toward a particular exhibit) or because they disengaged with those themes and considered them irrelevant to understandings of immigration history? If participants were equally exposed to all three themes, would one see the same pattern?

Study 1

Study 1 employs a larger sample and addresses the limitations of the pilot study by exposing participants to all three themes (i.e., glorifying, critical, and neutral) of photos and examining whether they demonstrate a preference for the various representations. Study 1 also examines how dominant group members' preferences for various representations of history are associated with their conceptions of American identity.

Participants

Participants were 119 undergraduates (66 women; $M = 18.69$ years old, $SD = 1.02$; all U.S. citizens) at a U.S. Southern university who indicated White/Caucasian race/ethnicity. Participants received partial course credit for completing the study.

Procedure

After agreeing to participate in the study, participants viewed twelve photographs from the Ellis Island Immigration Museum within a Qualtrics survey. Four photographs focused on historical injustices associated with immigration (e.g., discrimination faced by East Asian immigrants) and constituted the *critical* condition. Four photographs glorified the nation (e.g., contrasted "peace" and "prosperity" prevalent in the U.S. with "hunger," "ruin," "famine," "death," and "desolation" prevalent in the immigrants' nations of origin). These photographs constituted the *glorification* condition. Four photographs were neutral, meaning that their content did not criticize nor glorify the nation (e.g., discussed the various sea ports in the U.S. that acted as gateways for immigration). The majority of these photographs were selected from the pilot study (all photos in the *glorification* and *neutral* condition, and two photos in the *critical* condition). However, because of the low frequency of critical photographs taken by participants in the pilot study, the critical condition was supplemented with photos taken by the first and second authors from their visit to the museum.

¹Participants were instructed to take and share approximately 10 photos with the researchers. Participants submitted between 3 and 28 photos.

We randomly assigned participants to view these photographs in one of two alternating conditions (i.e., one neutral, one glorifying, one critical, and repeat order OR one neutral, one critical, one glorifying, and repeat order). Participants rated each photograph on how much they liked it, how critical it was, and how patriotic it was. After completing the rating task, participants completed measures on national identification and demographics.

Measures

Photograph Ratings

Participants responded to three evaluative questions using a 7-point scale ranging from 1 (*Not at all*) to 7 (*Very Much*). The questions were: *How much do you like this photo?*; *How patriotic is this photo?*; and *How critical of America is this photo?* We used the last two items as a manipulation check to assess whether glorifying photos were considered more patriotic than critical or neutral photos, and whether critical photos were considered more critical of American history compared to glorifying and neutral photos.

Cultural-assimilationist National Identity

The present work emphasizes how cultural tools (e.g., representations of history) are associated with content of national identity (i.e., what it means to be a “true” American) and identity-relevant action. Particularly, we were interested in what previous researchers have referred to as cultural-assimilationist constructions of national identity (Pehrson and Green, 2010; Mukherjee et al., 2012, 2013), which emphasize assimilation to dominant cultural ways of being (e.g., knowledge of English language in the U.S. context). To measure this construct, we adapted items from the ISSP Research Group (2009a,b) and followed previous research (Pehrson and Green, 2010; Mukherjee et al., 2012, 2013). Participants ranked 10 statements in response to what it means to be “truly” American. Two of these items tapped into cultural-assimilationist conceptions of identity (“to be able to speak English”; “have U.S. citizenship”; Mukherjee et al., 2012) while the remaining eight items served as filler items (e.g., to feel American). We subtracted raw ranking responses from 10 (i.e., the number of options). We created the cultural-assimilationist score by averaging scores for the two items that assessed this construct. Higher numbers on this score indicate higher ranking of this construct.

Demographics

Participants completed several demographic variables including political ideology and country of residence. Political ideology was rated on a scale ranging from 1 (*Very Liberal*) to 7 (*Very Conservative*).

Results and Discussion

Recall that participants were exposed to all three themes (glorifying, critical, and neutral) in one of two alternating conditions (i.e., one neutral, one glorifying, followed by one critical OR one neutral, one critical, followed by one glorifying). The inclusion of item order condition did not influence significance of results,

and therefore we did not include it as a covariate. The inclusion of political ideology as a covariate did modify results, such that, findings were less statistically significant. Moreover, the topic of immigration has been an issue of much debate amongst those with different political ideologies. Accordingly, we included political ideology as a covariate in our analyses.

Evaluation of Historical Immigration Themes

We conducted repeated measures ANCOVAs to examine whether evaluation of representations of history differ as a function of their thematic content (glorifying, critical, and neutral).

Manipulation Check

Our manipulation check indicated that participants considered the glorifying themed-photos as more patriotic ($M = 4.52$, $SD = 1.10$), compared to both, critical themed and neutral themed photos ($M = 2.85$, $SD = 0.94$), $F(1, 116) = 371.89$, $p < 0.001$, $\eta_p^2 = 0.76$. Participants considered the critical themed photos ($M = 4.13$, $SD = 1.24$), as more critical of American history compared to both, glorifying and neutral themed photos ($M = 2.91$, $SD = 1.34$), $F(1, 116) = 107.04$, $p < 0.001$, $\eta_p^2 = 0.48$. Interestingly in this case, participants also considered the glorifying themed photos ($M = 3.17$, $SD = 1.47$), more critical than neutral themed photos ($M = 2.57$, $SD = 1.32$), $F(1, 116) = 54.67$, $p < 0.001$, $\eta_p^2 = 0.32$. However, since both means are below the midpoint of the scale, we do not have strong evidence to suggest that participants considered these photos as “critical.”

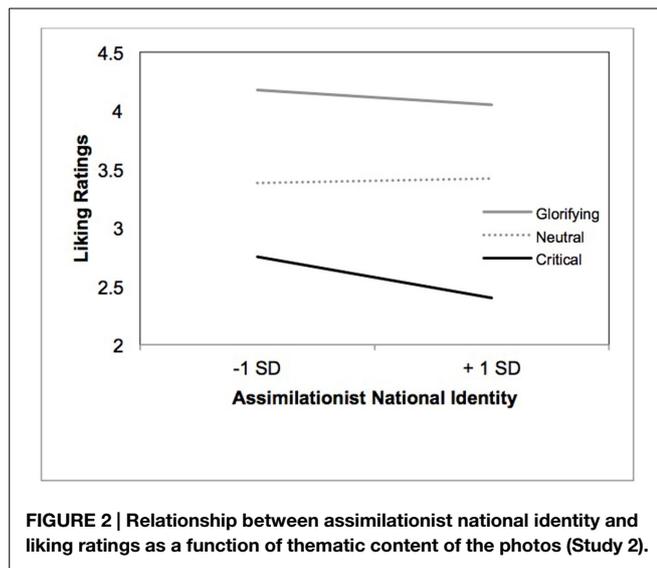
Liking ratings

Results indicated that participants liked the glorifying photos the most ($M = 4.08$, $SD = 1.05$) followed by the neutral themed photos ($M = 3.41$, $SD = 0.98$), and the critical photos ($M = 2.64$, $SD = 0.97$), $F(2, 116) = 130.46$, $p < 0.001$, $\eta_p^2 = 0.53$. Contrast analysis indicate that participants liked the glorifying photos more than the critical photos, $F(1, 116) = 60.33$, $p < 0.001$, $\eta_p^2 = 0.34$, as well as liked the neutral photos more than the critical photos, $F(1, 116) = 32.04$, $p < 0.001$, $\eta_p^2 = 0.22$. There was no significant difference in liking ratings of glorifying and neutral photos, $F(1, 116) = 2.11$, $p = 0.15$, $\eta_p^2 = 0.02$. These results indicate that participants liked the critical photos the least. Taken together, results from the pilot and evaluation of liking ratings in Study 1 suggest that participants may have taken fewer photos reflecting critical-themes because they did not like them, whether or not they were aware of their existence in the museum.

The next set of analysis focused on the extent to which American identity predicted differential engagement with photo content.

Liking Ratings and Identity

We examined the extent to which endorsement of cultural-assimilationist conceptions of American identity predicted differential liking of photo content. Accordingly, we conducted a repeated measures analysis with identity as a continuous moderator of within-subject variation in liking ratings. As shown in **Figure 2**, results indicate a marginal interaction between identity and liking ratings, $F(2, 115) = 2.44$, $p = 0.08$, $\eta_p^2 = 0.04$. Simple



slope analysis indicated that the more people endorsed a cultural-assimilationist conception of identity, the less they liked critical themed photos, $b = -0.23$, $t(115) = -1.98$, $p = 0.05$, $\eta_p^2 = 0.03$. There was no association between identity and liking ratings for neutral themed and glorifying themed photos, $ps > 0.34$. In sum, defining American identity in terms of dominant cultural values was negatively associated with liking critical-themed photos and unrelated to liking glorifying and neutral themed photos. The results so far (Pilot and Study 1) suggest that the relative absence of critical-themed photos in the pilot may be reflective of endorsement of a particular conception of identity, one that defines “true” Americans in terms of assimilation to dominant cultural views.

So far, results suggest that representations of history can reflect particular identity concerns: Photos that reflect historical injustices and highlight marginalized group experiences may not align with dominant conceptions of American identity. Accordingly, majority group members (e.g., White Americans) who endorse such dominant conceptions of identity may disengage from such representations (e.g., not consider them important to record during their visit to a museum because they dislike and disengaged from the content). Together, these results suggest that conceptions of American identity have several implications for engaging with historical as well as present day issues of injustice.

Does engagement with cultural products shape particular identity conceptions? Recall that a cultural psychological perspective proposes that identity does not emerge naturally (i.e., develop solely through psychological maturation). More specifically, the differences that emerge between those who endorse dominant conceptions of identity, and those who do not are not characteristic of stable, enduring traits inherent within individuals.

Study 2

In Study 2, we consider how people’s conception of American identity is shaped by their engagement with their cultural worlds. Accordingly, Study 2 examines how engagement with representations of immigration history influences conceptions of identity

and identity-relevant action. Moreover Study 2 included additional items on our identity measure, thereby providing a more comprehensive instantiation of our construct.

Participants

Participants were 35 visitors to the Ellis Island Immigration Museum (18 women; $M = 34.15$ years old, $SD = 18.46$) in New York City, all of who indicated White/Caucasian race/ethnicity. Nineteen participants were on their way to the museum (i.e., “before” condition). Participants in the “before” condition included 13 U.S. citizens, 5 Non-U.S. citizens, and 1 individual who did not indicate their nationality. The remaining 16 participants had just completed their visit at the museum (i.e., “after” condition). These included 9 U.S. citizens, 2 non-U.S. citizens, and 5 individuals who did not report their nationality.

Procedure

The first and second authors recruited visitors near the museum and asked them to complete a brief survey. Forty-three participants were approached either after they had just finished their visit to the museum (on Ellis Island) or as they were waiting in line to board the ferry that would take them to the museum (near Battery Park). Thirty-five participants agreed to participate in the study.

Measures

Cultural-assimilationist National Identity

We used a similar ranking procedure as in Study 1. However, this time we included four additional items on cultural-assimilationist conceptions of identity. Participants ranked 10 statements in response to what it means to be “truly” American. Six of these statements tapped into cultural constructions of national identity (“be able to speak English” and “be Christian”). The remaining four items were filler items and focused on American identity but not related to cultural-assimilationist conception of identity (e.g., “be born in the U.S.”). We subtracted raw ranking responses from 10 (i.e., the number of options). Higher numbers indicate that a participant placed greater importance on the associated identity characteristic. We created the cultural-assimilationist score by averaging scores for six items that assessed this construct. Higher numbers on this score indicate higher ranking of this construct.

Immigration Relevant Policies

We used three items to assess support for immigration relevant policies. Participants used a 7-point Likert scale (1 = *Not at all*, 7 = *Certainly*) to indicate their level of agreement to each item. The first immigration item focused on punishing undocumented immigrants: “States should have the right to question and detain anyone without proper identification who is suspected of being in the U.S. illegally.” The second item focused on a policy that promoted the use of bilingual education in schools (i.e., tapping into an inclusive stance on immigration): “States should support bilingual education programs in schools (practice of teaching non-English speaking students core subjects in their native language as they learn English).” The third item was also reflective of a more inclusive stance toward immigration: “The government

should provide a “path of citizenship” for people who are in the U.S. illegally.” We reverse-coded the item on detention and averaged the two items to create an immigration and bilingual education policy score. Higher scores on this measure indicated a more inclusive and favorable stance toward immigration relevant issues, $\alpha = 0.63$.

Demographics

Participants completed several demographic variables including political ideology and country of residence (coded as 0 = U.S. and 1 = non-U.S.). Political ideology was rated on a scale ranging from 1 (*Very Liberal*) to 7 (*Very Conservative*).

Results and Discussion

To examine how engagement with the museum influenced identity and policy support, we conducted one-way ANCOVAs with museum visit (before or after) as our between subject predictor. To maximize our sample, we included all participants, even those who were non-citizens of the U.S. To control for between-country variation, we used country of residence as a covariate in all analyses. While collecting the surveys from the participants, the first and second authors noted that several participants either failed to complete the measure on political ideology or verbally expressed their difficulty in completing that measure². Participants who were non-residents of the U.S. indicated that their understandings of liberal and conservative were not aligned with American conceptions of the two constructs. Accordingly, we did not include this measure in our analysis.

Cultural-assimilationist National Identity

Results³ indicated a significant difference such that participants who were surveyed prior to entering the museum indicated a lower endorsement of cultural-assimilationist constructions of identity ($M = 4.89$, $SD = 1.46$) compared to participants who had just completed their visit ($M = 6.70$, $SD = 2.15$), $F(1, 21) = 5.65$, $p = 0.027$, $\eta_p^2 = 0.21$. Stated differently, we found that participants who just completed their visit to the museum were more likely to define American identity in terms of assimilation to dominant cultural standards, compared to those who had not engaged with the contents of the museum.

²Five participants in the “before” condition, and 3 participants in the “after” condition failed to complete the measure on political ideology. All of these participants were non U.S. residents. Moreover, even amongst those who did complete the measures, several participants expressed difficulty in completing the measure. Unfortunately, the experimenters did not record the number of participants who verbally expressed their difficulty. Prior research demonstrates a cultural difference in patterns of relations between political orientation and values (e.g., Thorisdottir et al., 2007) and proposes a multilevel analysis of political orientation (e.g., Haidt et al., 2009). This line of work is consonant with our own observations and suggests that participants’ conceptions of liberalism and conservatism may differ based on their national origin (e.g., U.S. vs. Europe). Future research can further explore the extent to which there are differences in the meaning of these ideological constructs, and whether these differences are associated with immigration-relevant attitudes.

³Eleven participants failed to fully complete this measure so we analyzed the scores of the remaining 24 participants.

Immigration Relevant Policies

Results⁴ indicated a difference in policy support: Participants who were surveyed prior to entering the museum had more inclusive stances toward immigration policies ($M = 5.20$, $SD = 1.25$) compared to participants who had just gone through the museum ($M = 4.15$, $SD = 1.35$), $F(1, 26) = 4.86$, $p = 0.036$; $\eta_p^2 = 0.16$. Stated differently, we found that participants who just completed their visit to the museum, compared to those who were on the way to the museum, indicated increased support for detention of immigrants, and decreased support for bilingual educational policy as well as decreased support for a policy promoting a path to immigrant citizenship.

In sum, this study suggests that engaging with the museum content influences visitors’ understanding of the meaning of American identity (i.e., what it means to be a “true” American) as well as impacts their support for immigration-relevant policies. However, it is unclear whether this effect is because participants engaged with particular representations: For instance, is it reflective of the failure to engage with critical representations focusing on injustice, or is it reflective of an over-emphasis on nation-glorifying representations? Do prior conceptions of American identity influence the consequences of engaging with particular representations?

Study 3

Study 3 addresses the questions raised in Study 2 by exposing participants to either glorifying, critical, or neutral images, and examining how differential exposure can influence how participants engage with current-day immigration issues (i.e., perception of injustice and support for immigration policies). Moreover, Study 3 also examines how people’s conceptions of American identity moderate the consequences of their engagement with particular historical representations.

Participants

Participants were 257 undergraduate students (62.6% women; all U.S. citizens) at a U.S. Southern university. Participants received partial course credit for completing the study. Reported racial/ethnic background included: 64.6% European American/White, 18.3% Hispanic/Latina, 9.3% Biracial/Multiracial, 3.1% Asian American, 3.5% African American/Black, and 0.8% American Indian/Alaskan Native. Ages ranged from 18 to 28 ($M = 18.80$, $SD = 1.13$).

Procedure

After agreeing to participate in the study, participants evaluated three photographs within a Qualtrics survey on a computer in a private cubicle. Participants were randomly assigned to view one of three conditions: *critical*, *neutral*, or *glorifying* images from the Ellis Island Museum. Participants rated each photograph on how much they liked it, how critical it was, and how patriotic it was. After completing the rating task, participants completed measures

⁴Six participants failed to fully complete this measure so we analyzed the scores of the remaining 29 participants.

of cultural-assimilationist national identity, perception of racism, policy-support, and demographics.

Measures

Cultural-assimilationist National Identity

Participants completed the same measure of identity as in Study 2.

Perception of Racism

Participants responded to seven items that assessed perceptions of racism in the context of immigration affairs ($\alpha = 0.78$; see Adams et al., 2006). Participants used a 7-point scale (1 = *not at all due to racism*, 7 = *certainly due to racism*) to indicate the extent to which particular policies and state of affairs related to U.S. immigration was related to racism. Example items are *use of techniques such as racial profiling to identify and question people about their legal status, enacting stricter border security along the Mexican border, and using the term “alien” to refer to immigrants*.

Immigration Policy

We used four items to assess support for immigration policies similar to Arizona SB 1070. Participants used a 7-point Likert scale (1 = *Strongly Disagree*, 7 = *Strongly Agree*) to indicate their level of agreement to each item. As in Mukherjee et al. (2012), two of these items focused on policies that punished undocumented immigrants (“*States should have the right to question and detain anyone without proper identification who is suspected of being in the U.S. illegally*” and “*States should have the right to question people about their immigration status if they suspect they are unlawful residents of the nation*”). We averaged these two items to form an index of *immigrant-focused law enforcement* ($\alpha = 0.83$). The remaining two items focused on punishing U.S. employers who exploited undocumented immigrants (“*Authorities should prosecute and punish Americans who exploit illegal immigrants for their labor or other services*” and “*Authorities should penalize, jail or otherwise punish American businesses that knowingly recruit and exploit undocumented immigrants*”). We computed the mean of these items to form an index of *employer focused law enforcement* ($\alpha = 0.69$).

Political ideology

As in Studies 1 and 2, political ideology was rated on a scale ranging from 1 (*Very Liberal*) to 7 (*Very Conservative*).

Results and Discussion

Table 1 presents the means and standard deviations of all measured variables.

Manipulation Check

We conducted 3 (photo theme: critical/neutral/glorifying) between-subjects ANCOVAs with political ideology as a covariate, to examine whether (i) participants considered glorifying themes as more patriotic, compared to critical and neutral, and (ii) participants considered critical photos as more critical of American history compared to glorifying and neutral photos.

TABLE 1 | Means and (Standard Deviations) of measures (Study 3).

	Glorifying	Neutral	Critical
Patriotic rating	4.47 ^a (1.26)	2.95 ^b (1.31)	2.20 ^c (1.22)
Critical rating	3.36 ^{a+} (1.39)	2.97 ^b (1.16)	4.60 ^c (1.40)
Liking rating	3.49 ^a (0.87)	3.40 ^a (1.09)	2.04 ^b (1.11)
National identity	4.75 ^a (0.67)	4.92 ^a (0.64)	4.97 ^a (0.75)
Perception of racism	4.12 ^a (1.38)	3.89 ^a (1.48)	4.14 ^a (1.31)
Policy: immigrant focused	5.04 ^a (1.67)	4.94 ^b (1.75)	4.61 ^c (1.73)
Policy: employer focused	4.58 ^a (1.47)	4.52 ^a (1.64)	4.49 ^a (1.57)

Standard deviations are in parenthesis. We report significant differences of pairwise comparisons, and different letter superscripts within rows indicate statistically significant ($p < 0.05$) differences; ⁺ $p < 0.1$.

Patriotic Rating

The omnibus ANCOVA was significant, $F(2, 255) = 68.05$, $p < 0.001$, $\eta_p^2 = 0.35$. Participants considered the glorifying themed-photos as more patriotic ($M = 4.47$, $SD = 1.26$) compared to the neutral photos ($M = 2.95$, $SD = 1.31$; $p < 0.001$), and the neutral photos more patriotic compared to the critical themed photos ($M = 2.20$, $SD = 1.22$; $p < 0.001$).

Critical Rating

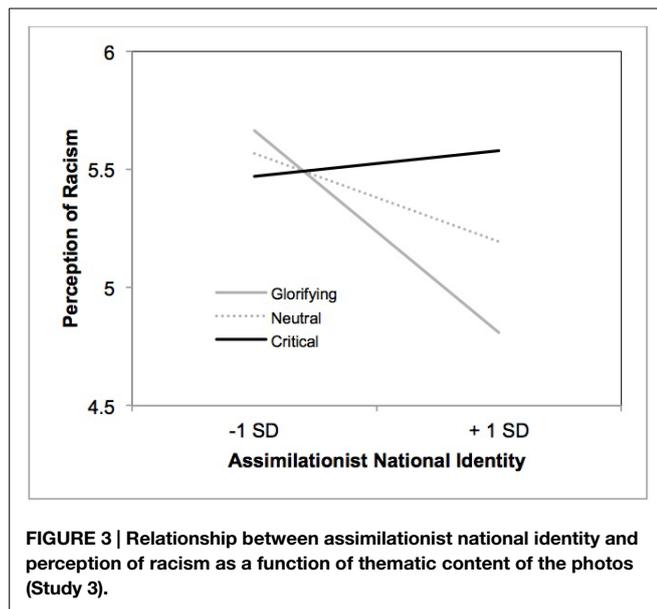
The omnibus ANCOVA was significant, $F(2, 255) = 37.39$, $p < 0.001$, $\eta_p^2 = 0.23$. Participants considered the critical themed photos ($M = 4.61$, $SD = 1.40$), as more critical of American history compared to glorifying themed photos ($M = 3.36$, $SD = 1.39$; $p < 0.001$), and the glorifying themed photos as more critical than neutral themed photos ($M = 2.97$, $SD = 1.16$; $p = 0.068$). As in Study 1, the means for neutral and glorifying photos were both below the mid-point of the scale, thereby suggesting that participants did not consider these photos as “critical” *per se*.

Liking Ratings

To test for differences in liking ratings between the various history themes, we conducted ANCOVA analysis with photo theme as the between subjects variable and political ideology as a covariate. The omnibus ANCOVA was significant, $F(2, 255) = 53.50$, $p < 0.001$, $\eta_p^2 = 0.30$. Pairwise comparisons indicated that participants liked the critical photos ($M = 2.04$, $SD = 1.11$) less than the glorifying themed photos ($M = 3.49$, $SD = 0.87$; $p < 0.001$) and less than the neutral themed photos ($M = 3.40$, $SD = 1.09$; $p < 0.001$). There was no difference in liking glorifying and neutral themed photos ($p = 0.49$).

Regression Analysis

To investigate the effects of museum content and national identity content on perceptions of racism and policy support, we conducted two hierarchical regression analyses (Aiken and West, 1991). The effect of photo theme was decomposed using two orthogonal contrasts. The first contrast tested the hypothesized linear effect of photo exposure (critical = -1 /neutral = 0 /glorifying = 1). The second contrast tested the residual variance by comparing the neutral condition to the critical and glorifying conditions (critical = -1 /neutral = 2 /glorifying = -1). We entered the



main effects—two contrasts and identity—on the first step, and two-way interactions between each contrast and identity on the second step. We mean centered cultural-assimilationist national identity before entering it in the multiple-regression models. We included political ideology as a covariate in all analyses⁵.

Perception of Racism

Regression analysis indicated that there were no main effects of contrast 1, $b = -0.09$, $t(249) = -0.82$, $p = 0.41$, and contrast 2, $b = -0.08$, $t(249) = -1.44$, $p = 0.15$. There was a marginal effect of identity such that endorsement of cultural-assimilationist conception of identity was associated with lower levels of racism perception, $b = -0.22$, $t(249) = -1.79$, $p = 0.07$, $\eta_p^2 = 0.01$. That is, those who defined American identity in terms of dominant cultural values were less likely to perceive systemic acts of injustice in American society. Moreover, the higher order interaction between identity and the first contrast was also significant, $b = -0.37$, $t(247) = -2.52$, $p = 0.01$, $\eta_p^2 = 0.03$, but not the interaction between identity and the second contrast, $b = 0.03$, $t(247) = 0.35$, $p = 0.73$, thereby suggesting a linear moderating effect of photo theme on the link between identity and perception of racism. As depicted in **Figure 3**, simple slope analyses indicated that the negative relationship between defining American identity in cultural terms and racism perception was particularly evident among participants viewing the glorifying images from the Ellis Island Museum, $b = -0.62$, $t(247) = -3.05$, $p = 0.003$. Similarly, neutral images also decreased perceptions of racism among those participants defining American identity in terms of dominant cultural values, $b = -0.27$, $t(247) = -2.15$, $p = 0.03$. On the other hand, exposure to critical images, attenuated the negative relationship between assimilationist national identity and perception of racism, $b = 0.08$, $t(247) = 0.42$, $p = 0.68$.

⁵Three participants failed to complete the measures so the analyses were run on the remaining 254 participants.

In sum, results indicate that exposure to glorification and neutral images supported the negative relationship between assimilationist national identity and perception of racism. On the other hand, exposure to critical images attenuated the negative relationship between assimilationist national identity and perception of racism.

Immigration Policy

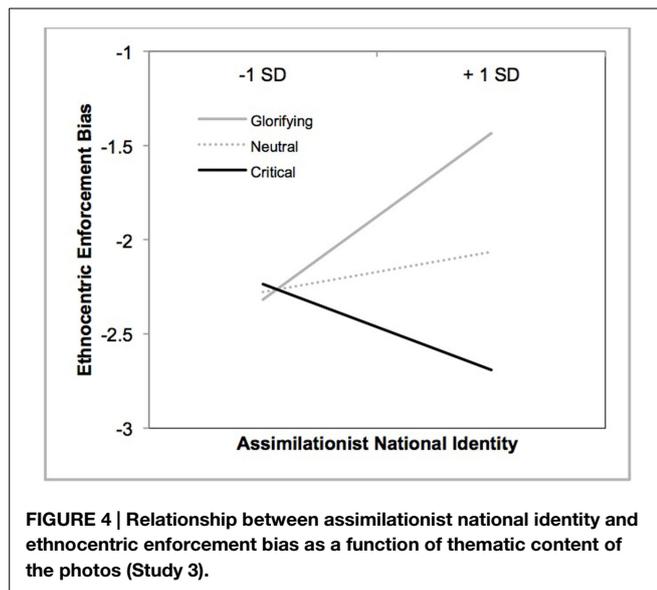
We utilized two sets of policies: one that focused on tough treatment of undocumented immigrants and one that focused on tough treatment of American employers who exploit undocumented immigrants. To the extent that cultural-assimilationist conception of identity is associated with privileging those who meet dominant group standards (e.g., American employers), and disadvantaging those who do not meet these standards (e.g., undocumented immigrants), one can hypothesize that identity will impact within-subject variation in support for these types of policies. As in Mukherjee et al. (2012), we created a difference score by subtracting the *employer-focused* index from the *immigrant-focused* index. This difference score measure served as an index of ethnocentric enforcement bias and measured the extent to which participants supported the punishment of law-breaking immigrants over law-breaking American employers. To examine the extent to which national identity and conditional exposure influenced this bias, we conducted a hierarchical regression analysis as in earlier analysis.

Regression analysis indicated that there were no main effects of identity, $b = 0.13$, $t(249) = 0.72$, $p = 0.47$, and contrast 2, $b = 0.04$, $t(249) = 0.46$, $p = 0.65$. There was a marginal effect of contrast 1, $b = 0.28$, $t(249) = 1.82$, $p = 0.07$, $\eta_p^2 = 0.01$, thereby suggesting a linear effect of photo theme on the ethnocentric enforcement bias. Moreover, there was a two-way interaction between contrast 1 and identity, $b = 0.43$, $t(247) = 2.03$, $p = 0.04$, $\eta_p^2 = 0.02$, and no significant interaction between contrast 2 and identity, $b = 0.09$, $t(247) = 0.66$, $p = 0.51$. As can be seen in **Figure 4**, simple slope analyses indicated that the positive relationship between defining American identity in terms of dominant standards and ethnocentric enforcement bias was most evident amongst participants who viewed glorifying images, $b = 0.64$, $t(247) = 2.15$, $p = 0.03$. There was no relationship between identity and ethnocentric enforcement bias for those who viewed neutral images, $b = 0.15$, $t(247) = 0.84$, $p = 0.40$, and those who viewed critical images, $b = -0.33$, $t(247) = -1.19$, $p = 0.24$.

In sum, results indicate that the effects of critical exposure trended in the opposite direction of the glorifying and critical directions. This suggests that exposure to critical images, compared to exposure to glorifying and neutral images, attenuated the positive relationship between assimilationist national identity and ethnocentric enforcement bias—the tendency to punish undocumented immigrants over American employers who exploit undocumented immigrants.

General Discussion

The present work draws upon a diverse methodological approach—field research involving both quantitative and qualitative analysis, and experimental research—to examine how



national identity concerns are aligned with representations of immigration history. In one direction (and associated with the *psychological constitution* direction of the mutual constitution framework), people's preferences for historical representations are reflective of identity-concerns. In the other direction (and associated with the *sociocultural constitution* direction of the mutual constitution framework), historical representations promote identity-relevant experiences.

Evidence for the *psychological constitution* direction comes from the pilot study and Study 1. As part of the photo-task, participants in the pilot selected more nation-glorifying images compared to images focusing on historical injustice. When exposed to photographs reflecting neutral, nation-glorifying, and injustice themes, participants in Study 1, indicated a stronger preference for nation-glorifying themes, compared to neutral themes, followed by themes focusing on historical injustice. Alternatively stated, participants preferred the critical-themed images the least, compared to the neutral and glorifying themed-images. National identity moderated participants' differential liking for historical representations. Defining American identity in terms of dominant cultural values was negatively associated with liking critical-themed photos and unrelated to liking glorifying and neutral themed photos. These results suggest that those who define identity in ways that fit with dominant group standards are less likely to engage with representations that focus on historical injustices. Repeated acts of preferential (dis)engagement may further reproduce a nation-glorifying bias in historical representations. For instance, after a visit to a museum, person A may discuss her experience with another individual, person B, and share her photographs with person B. If person A took more nation-glorifying representations (or less critical representations), then she is likely to influence person B's knowledge of immigration history: person B may now be ignorant of events that focused on oppression and thus be unaware of the experiences of particular immigrant groups. Person A may also share her pictures on a social networking site and thereby

influence a larger group's understanding of immigration history. In sum, an emphasis on nation-glorifying representations may influence not just the visitor's understanding of immigration history, but also, influence other people's understandings of the past.

Evidence for the *sociocultural constitution* direction comes from Studies 2 and 3. We found that museum spaces direct people toward certain ends: In Study 2, participants who visited the museum were more likely to define American identity in terms of dominant group values (i.e., assimilationist identity) and indicate exclusive stances toward immigration issues (e.g., oppose bi-lingual education), compared to those who were on their way to the museum (i.e., waiting to take the ferry to the museum location). Study 3 results indicated that the negative relationship between American assimilationist identity and ethnocentric stances toward immigration (i.e., racism perception and policy bias) was true only for those participants who were exposed to glorifying images. Glorifying images thus promoted (i) the denial of racism and (ii) endorsement of ethnocentric enforcement bias especially amongst those participants with an identity profile (i.e., high cultural-assimilationist identity) conducive to anti-immigrant stances, or more specifically anti non-European/Anglo immigrant stances⁶. In contrast, results suggest that critical images may have served as an overriding influence and negated the negative effects of cultural-assimilationist national identity. In sum, these results suggest that the contents of museums are not just products of human activity, but they also shape psychological experiences in ways that may serve dominant group ends (e.g., resonate with dominant conceptions of identity).

Together, results across the pilot and three studies suggest that the presence and absence of particular historical representations may not emerge by accident. Instead, they may be reflective of specific identity concerns. Representations that are more consistent with dominant group identity concerns (i.e., aligned with cultural-assimilationist conception of identity) may be preferred and selected for considerations of immigration history (e.g., photographed and included in photo albums). Repeated acts of preferential selection may then influence the cultural rhetoric of immigration (e.g., concerns on what gets included/excluded in academic curricula). Results also suggest that historical representations direct people to define American identity in particular ways and influence identity-relevant experiences (e.g., racism perception). Conversely stated, identity conceptions do not emerge naturally but are products of engagement with one's sociocultural context. Finally, exposure to particular historical representations can promote or override the ethnocentric tendencies of cultural-assimilationist conceptions of identity; in particular, consider the impact of nation glorifying themes versus themes reflecting historical wrongdoing on anti-immigration policy support. Together, results from all studies provide support for the bi-directional

⁶As noted in the introductory section, assimilationist conceptions of identity are associated with ethnocentrism, that is, negative evaluations of immigrants and citizens who do not conform to Anglicized standards (e.g., those of Mexican origin) compared to immigrants and citizens who do conform (e.g., those of Canadian origin).

relationship between cultural context (i.e., historical representations) and psychological experience (i.e., national identity and identity-relevant experiences).

Limitations and Future Directions

Restricted Sample Sizes

One aim of the project was to consider the photographs taken by museum visitors and consider how a new group of participants would respond to the themes reflected in the photographs. Although participants provided the researchers with over 100 images to analyze, a limitation of the pilot study was that the photographic stimuli was derived from a limited number of participants. Accordingly, it is difficult to ascertain whether the lack of critical representations in photographs can be generalized to a larger sample. Moreover, the restricted sample size also made it difficult to ascertain the extent to which participants' identity characteristics (e.g., the photographer's conception of American identity) were associated with their selection decision (i.e., consideration of photographs with certain themes). Is it the case that people who endorse cultural-assimilationist conceptions of identity fail to take photographs reflecting critical themes? With a larger sample size, future research could consider the extent to which national identity or additional individual difference characteristics (e.g., conflict avoidance) are associated with selection decisions of the sample.

Which Representations Make an Impact?

Study 3 results indicated that the negative relationship between identity and racism perception, and the positive relationship between identity and policy bias were most evident amongst those who viewed glorifying images. In contrast, results did not reveal statistically significant relationships between identity and these identity-relevant tendencies among those who viewed images that were critical of American history. How does one interpret these results? On one hand, this suggests that glorifying photos may already resonate with dominant-identity conceptions and therefore reproduce the negative relationship between cultural-assimilationist identity and ethnocentric stances toward immigrants. This implies that the "standard" conditions that maintain this association are nation-glorifying (or are not critical of national history) and therefore merely strengthen this association. Previous research has found a consistent association between this conception and ethnocentric stances toward immigrants (see Pehrson and Green, 2010; Mukherjee et al., 2012, 2013). To the extent that the "neutral" condition serves as a control, there is evidence for this initial interpretation. On the other hand, this does not rule out the interpretation that exposure to historical accounts of oppression attenuates the "natural" association between identity and ethnocentric tendencies, and therefore conducive to *countering* the reproduction of hierarchy-enhancing, dominant-group ends. There is some evidence to support this interpretation (see decreases in anti-immigrant policy bias in **Table 1**, Study 3), but the evidence is minimal. However, we find it noteworthy that despite being non-significant, the effects of critical exposure trended in the opposite direction of the glorifying and neutral

conditions. This suggests to us the possibility that repeated or longer-term exposure to critical narratives would be necessary to fully reverse the existing negative relationship between identity and racism perception (and the positive relationship between identity and policy bias). Furthermore, it is also possible that the limited impact of critical-themed photos is due to the competing motives in response to the images. That is, participants may be experiencing both a motivation to utilize the photos as information (i.e., immigrants face numerous hardships, including ethnic exclusion) and a motivation to dismiss the photos because they negatively implicate the group (i.e., these accounts of ethnic exclusion do not align with my perception that the nation is moral). Alternatively, exposure to past accounts of wrongdoing may increase consciousness for some, but may also increase threat for others, especially amongst those who identify with the perpetrator category. Future research should investigate the conditions in which, and/or for whom, critical-themed representations lead to more positive social outcomes (e.g., increased racism perception).

Conclusion

A key contribution of the present work is the application of a cultural psychological perspective toward the study of historical representations and identity. People rely upon historical representations (e.g., museums, history curricula) to learn about a nation's past (Wineburg, 2001; Loewen, 2007). Moreover, they learn to attend to certain events (e.g., nation glorifying events) and learn not to attend to certain events (e.g., critical events focusing on injustice) as they continuously engage with such representations. Representations of the past are in turn regulated by preferential selection tendencies of prior actors (e.g., individuals who create museum space, design curricula). That is, historical representations in museum spaces do not emerge from nowhere. People design a museum and make decisions to include or exclude particular representations. The present work suggests that national identity influences people's preferences for particular historical representations. Those who define American identity in terms of dominant-group values prefer nation-glorifying representations compared to critical representations that focus on historical injustices and barriers. These representations in turn serve as repositories of knowledge and influence subsequent identification and identity-relevant tendencies. Continuous engagement with particular representations of history present in museum spaces may further strengthen (or reduce) dominant conceptions of national identity. Moreover, particular representations (e.g., glorifying images) may be conducive for minimizing current issues of racial injustice and increasing biased support for law-enforcement policies. This suggests that historical representations or historical sites can direct future behavior and action of those who engage with these representations. An important implication of this form of analysis is that, in directing people toward certain ends (e.g., consistent with cultural-assimilationist conceptions of identity), a historical site may also lead people to ignore other ends (e.g., critical representations that reflect injustice and is inconsistent with dominant-group ends). If one narrative is privileged, another is silenced or ignored.

Thus, museum sites may play a dynamic role in constructing “knowledge” and provide basis for revealing the epistemologies of ignorance (Mills, 2007). Historical representations can direct one to behave in certain ways *and* to not behave in other ways (e.g., promote ways of knowing that contribute toward the denial of injustice).

The present work also contributes to a cultural psychological approach to topics of injustice and oppression. Research on social inequalities has mainly focused on the role of individual stereotyping, prejudice, and discrimination (Adams et al., 2008). Such “standard” framings of injustice (e.g., racial injustice) can promote the construction of injustice as a problem of biased acts of prejudiced individuals, and minimize the systemic roots of injustice (Hopkins et al., 1997; Adams et al., 2008). We draw upon a cultural psychological perspective to consider the systemic factors that reproduce racial inequalities. Particularly, we consider how people can be immersed in an environment that is structured in a way to reflect and reproduce dominant-group interests. We also consider alternative arrangements that promote more inclusive ends. Our results indicate that historical representations that focus on national glorification are more prevalent in judgments of national history (i.e., considered more important to photograph and record). The reproduction of such representations lays the foundation for dominant-identity concerns (e.g., assimilation to dominant-group standards, denial of injustice). In contrast, alternative representations of history that reflect experiences of historically oppressed immigrant groups and highlight social injustice may be more aligned with the detection of present-day experiences of injustice, and provide bases for more inclusive and reparative action (e.g., supporting

bi-lingual education; see Martín-Baró, 1994). Thus, museums can also serve as pedagogical tools that promote positive and inclusive outcomes.

In conclusion, a cultural psychological perspective emphasizes the mutually constitutive relationship between culturally patterned worlds and human psychological experience. On one hand, results suggest that museum spaces, like all sociocultural contexts, can privilege certain representations (e.g., those that emphasize national glorification) and those representations shape how we see the world. In this case, the immigration museum promotes conceptualizing what it means to be American as assimilating to dominant cultural values. On the other hand, how might some narratives find prominence in any given sociocultural context? These results also suggest that the presence or absence of such narratives (as expressed through individual preferences) are shaped by an individual's prior identity or conception of what it means to be American. In other words, crafting the narrative through the lens of a cultural-assimilative American identity most likely affords disliking or silencing critical versions of that narrative. Finally, regardless of individual preferences, engagement with privileged narratives may serve dominant group ends (e.g., decreased support for inclusive policies). In this way, the results illuminate the structural foundations of privilege and oppression.

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Bridging and bonding interactions in higher education: social capital and students' academic and professional identity formation

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It is increasingly recognized that graduates' achievements depend in important ways on their opportunities to develop an academic and a professional identity during their studies. Previous research has shown that students' socio-economic status (SES) and social capital prior to entering university affects their ability to obtain these identities in higher education. However, what is less well understood is whether social capital that is built during university studies shapes identity development, and if so, whether the social capital gained during university years impacts on academic and professional identity differently. In a qualitative study, we interviewed 26 Danish and 11 Australian university students about their social interaction experiences, their opportunities to develop bonding capital as well as bridging capital, and their academic and professional identity. Findings show that while bonding social capital with co-students facilitated academic identity formation, such social capital does not lead to professional identity development. We also found that the development of bridging social capital with educators facilitated students' professional identity formation. However, bonding social capital among students stood in the way of participating in bridging interaction with educators, thereby further hindering professional identity formation. Finally, while students' parental background did not affect the perceived difficulty of forming professional identity, there was a tendency for students from lower SES backgrounds to be more likely to make internal attributions while those from higher SES backgrounds were more likely to make external attributions for the failure to develop professional identity. Results point to the importance of creating opportunities for social interaction with educators at university because this facilitates the generation of bridging social capital, which, in turn, is essential for students' professional identity development.

Keywords: identity formation, academic identity, professional identity, self-concept, bridging social capital, bonding social capital

INTRODUCTION

In today's society, graduates' economic success is shaped in important ways by educational competencies and individuals' ability to flourish in complex work environments (Goh and Lee, 2008). As a result, researchers and university policy makers alike are increasingly interested in the integration between academic skill development and workplace needs and, more generally, the development of workplace skills while students are at university. This has led to a focus on students' opportunities to develop not only academic but also professional identities during their studies (Farrell, 1990; Pascarella and Terenzini, 2005; Scanlon et al., 2007; Trede et al., 2012; Komarraju et al., 2010). The importance of developing professional identities as part of the curriculum puts pressure on universities to provide opportunities for students, such as work-integrated learning, that ensures optimal preparation for future workforce conditions (Barnett, 1994; Reid et al., 2008).

However, it is also clear that not all students benefit equally from opportunities to develop identity at university. Previous correlational research has shown that the students who benefit most from these opportunities are those from higher socio-economic status (SES) who, prior to entering university, have more social capital than their lower SES counterparts—social capital that forms an important building block for the development of these identities in higher education (Rendón, 1994, 2002; Hurtado and Carter, 1997; Nora et al., 2005; Freeman et al., 2007; Jetten et al., 2007; Pittman and Richmond, 2007; Iyer et al., 2008). However, social capital is not fixed or set in stone and new social capital is formed while students are at university. With the focus of the research on social capital formed before university entry, it is unclear whether social capital that is built after arrival at university affects identity development. Furthermore, if such ongoing social capital development is important for identity formation, it is unclear whether different forms of social capital

gained in higher education affect the development of academic and professional identity in different ways.

This research sets out to explore whether students experience their social interactions at university as supportive in gaining different forms of social capital. A second aim is to gain insight into whether social capital accumulated at university facilitates or hinders the development and consolidation of academic and professional identity. A further aim was to examine if the ability to develop identity and social capital at university is influenced by students' SES (measured as parents' educational background).

SOCIAL CAPITAL AND ACADEMIC ACHIEVEMENT

Social capital is defined as the value derived from membership in social groups, social networks or institutions. Such membership gives individuals access to resources and collective understanding. Putnam (2000) describes different forms of social capital, whereby social capital can be derived from shared experience, cultural norms, or shared purposes. Research has shown that a university student's social capital derived from family background affects their academic achievement outcomes in relation to preparation and persistence in higher education (Bourdieu, 1986; Rendón et al., 2000; Tierney, 2000; Horvat et al., 2003; Anderson, 2005; Ream, 2005). The difficulties arising from incompatibility of students' social capital background and higher educational achievement is well documented. For example, low-income, first-generation, or minority students are less likely to attend or finish university than their more privileged peers with similar academic qualifications (Simmons, 2011). One of the reasons for this is that for some students, attending university is incompatible with their family background and this has been found to predict poorer outcomes in the long term (Iyer et al., 2008) and that makes it more difficult for them to prepare for university (Horvat et al., 2003; Ream, 2005), and to access university (Tierney and Jun, 2001; Anderson, 2005; Kim and Schneider, 2005; Perna and Titus, 2005; Simmons, 2011). The lack of social capital also affects students' choice of university major (Porter and Umbach, 2006), and their university experience more generally (Pascarella and Terenzini, 2005; Harper and Quayle, 2008).

Another reason that low-income, first generation or minority students are less likely to attend university arises from the fact that SES and social capital prior to entering university impacts students' subsequent ability to obtain academic or professional identity in higher education (Hurtado and Carter, 1997; Jetten et al., 2007; Scanlon et al., 2007; Iyer et al., 2008). Higher social capital—in particular the type of capital that affects development of an academic identity—makes identity change easier, as those with greater social capital view the transition to university as a “normal” part of their lives. This, because entering university is compatible for these students with their existing identity network (Hurtado and Carter, 1997; Freeman et al., 2007; Jetten et al., 2007; Iyer et al., 2008). Furthermore, students from higher SES backgrounds have access to a greater diversity of group memberships that can support identity transitions (Jetten et al., 2013). Students without the required social capital therefore find this identity work particularly challenging (Raffo and Reeves, 2000; Read et al., 2003; Gardner and Barnes, 2007; Scanlon et al., 2007). They often lack the understanding of the values, norms, and

language in higher education as well as the support of family and friends that can ease such a transition and facilitate academic identity formation and high academic achievement (Rendón, 1994, 2002; Hurtado and Carter, 1997; Nora et al., 2005; Freeman et al., 2007; Pittman and Richmond, 2007; Scanlon et al., 2007).

We propose that a more fine-grained analysis of different types of social capital helps to unpack these processes further. Consistent with Putnam (1993, 2000) analysis, we distinguish between *bonding* and *bridging* social capital. Bonding social capital refers to the resources that individuals derive from relations with others and membership in social groups that allow for the perception of shared identity (Jetten et al., 2014). In groups that provide high levels of bonding capital, interactions are characterized by strong social ties, high social support and loyalty toward other members. In contrast, interactions that go across group boundaries, and therefore allows for the development of identities outside the in-group can form the basis of bridging capital. While the ties in bridging networks are not as strong as those that characterize bonding relations, the former form of capital provides access to information outside of the immediate network and allows for the development of identity (Putnam, 1993).

Therefore, depending on the nature of an individual's social capital, different types of identity development can be facilitated (Raffo and Reeves, 2000). As we outline in further detail below, we predict that bonding capital facilitates the development of academic identity whereas bridging capital is essential for the formation and development of professional identity. Before further developing these predictions, it is important to first define academic and professional identity and to explain their link to academic achievement.

ACADEMIC AND PROFESSIONAL IDENTITY

In the higher educational literature, academic identity is defined as the extent to which students feel they belong to the greater academic community, students' experience of personal academic worth and their visibility in the academic environment (Pascarella and Terenzini, 2005). Studies show that students' academic self-concept, their academic identity and sense of belonging to the environment, are significantly related to their academic achievement (Chickering and Reisser, 1993; Lounsbury et al., 2005; Pascarella and Terenzini, 2005; Pasque and Murphy, 2005; Scanlon et al., 2007; Torres et al., 2009; Hughes, 2010). What is more, with the growing recognition of the importance of students being optimally prepared when they enter the workforce, there is an increasing pressure on students' to develop not only academic skills but also know-how and operational skills related to their field (Barnett, 1994). Graduate achievement therefore depends significantly on students' opportunities to develop both academic and professional identities during their studies (Murphy et al., 2009; Komarraju et al., 2010; Trede et al., 2012; Molinero and Pereira, 2013). Professional identity formation involves the development of an awareness of the values, responsibilities but also the personal resources that are essential in the future professional environment (Bruss and Kopala, 1993; Öhlén and Segesten, 1998; Vasile and Albu, 2011).

It is unclear whether different forms of social capital gained in higher education affect the development of academic and

professional identity in different ways. We expect that students may derive bonding capital from interactions with peers at university. We predict that these interactions and the sense of belongingness that emerges from participation in group activities with peers particularly contributes to the development and formation of an academic identity because it helps students to understand the university environment and teaches them to successfully navigate this world. Consistent with this, there is a body of work that suggests that students inherit social capital from being in the academic environment and having social interactions with their fellow students (Bensimon, 2007; Scanlon et al., 2007).

Within universities, students will also interact with others with whom they do not necessarily share identity but these interactions form important building blocks for the formation of bridging capital. Consistent with this, some have pointed to the importance of interactions between students and educators that facilitate the process whereby students are able to view themselves as academics (Bensimon, 2007; Komaraju et al., 2010). Educators not only have an important role to play in academic identity formation, but they are also uniquely positioned to advise students on future job prospects and the required skills in the workforce and they can act as important role models—all of which contribute to the development of a professional identity.

However, given that students from lower SES backgrounds experience greater difficulty creating social capital than their higher SES counterparts, it remains to be examined whether these social inequalities carry over within the university context. In particular, we ask whether SES background affects the extent to which students are able to form bonding and bridging social capital at university but also the extent to which this facilitates the development of academic and professional identity. Based on previous research findings, we anticipated that students from lower SES backgrounds might be less likely to connect and form relationships with co-students. This leaves them isolated (Lawrence, 2001; Read et al., 2003) or excluded (Pargetter, 2000; Raffo and Reeves, 2000) and hinders the development of academic identity. Furthermore, given that lower SES students may feel less at home at university than their higher SES background counterparts because they perceive attending university as inconsistent with their family background (see Jetten et al., 2007; Iyer et al., 2008), we were open to the finding that they would be less likely to seek out educators' help and advice and that this would negatively affect the formation of their professional identity.

INSTITUTIONAL BARRIERS AND FACILITATORS

The way that universities are structured may affect the ease with which students perceive that there are opportunities to gain social capital. It could be argued that there are a number of reasons why such opportunities have declined over the last decades. First, universities are increasingly conceptualized as research institutions rather than teaching institutions (Perry and Allard, 2003) As a result of this, while the traditional model of scholarly training—for example the Oxbridge model—involved intense contact between a tutor and a small group of students, academic-student interaction, particularly face-to-face interaction, has reduced over the last decades (Scanlon et al., 2007; Torres, 2007). Second, campus life has become less lively because

campuses are increasingly decentralized and a large proportion of students learn remotely (Bridges, 2000). Third, attending universities has become more expensive in many countries necessitating that students work to pay for their studies. As a result, students spend less time on campus and they have less time to engage in activities that facilitate social capital development and identity formation (Smith and Webster, 1997).

Despite this, considerable pedagogical effort is expended on providing rich learning environments (Kuh et al., 2006) that promote volunteering and participating in community activities, clubs, and social organizations (Astin, 1993; Tinto, 1993; Pas-carella and Terenzini, 2005; Gardner and Barnes, 2007). However, it is unclear if these forms of social interaction are efficacious in developing the forms of social capital that provide for both academic and professional identity formation. It is also unclear whether students recognize opportunities that are provided by institutions to develop academic and professional identity as such. And, if they do recognize these opportunities, the question remains whether they perceive that there are barriers in making use of these opportunities. We suspect that the perception of barriers may explain why previous work has shown that students report lacking opportunities to develop academic identity and identity in their professional field (Farrell, 1990; Lapsley et al., 1990; McInnis and James, 1995; Freeman et al., 2007; Pittman and Richmond, 2007; Meeuwisse et al., 2010).

THE PRESENT RESEARCH

In an attempt to uncover opportunities that can strengthen the processes of identity formation for students in higher education, we conducted a qualitative study examining the interplay between different forms of social capital (bridging and bonding capital) and different identity formations (academic and professional identity formation). Specifically, we examined whether students experience their social interactions at university as supporting them in gaining bridging and bonding forms of social capital. A second aim is to get insight into whether social capital gained at university facilitates or hinders the development and consolidation of academic and professional identity. A further aim was to examine if the students' experiences were influenced by the parents' educational background.

We conducted our research at two universities in two different countries: at the University of Aarhus (AU), Denmark and The University of Queensland (UQ), Australia. Both AU and UQ are in the top 100 ranking (<http://www.au.dk/om/profil/ranking/>) but the University of Aarhus is smaller (37,500 students with 3,400 international students) than The University of Queensland (47,000 students enrolled, with approximately 16,000 international students mostly from Asia). Students from both universities are mostly of traditional age, from middle-class families and they experience college in a university and student culture characterized by academic and personal support options, possibility of high involvement and a tradition of academic focus. Support options, include student counseling services, advising about study options and choices, and personal counseling and support focusing on students' well-being at university. Additionally, a range of courses is available to help the student structure and improve their skills in reading and writing and manage IT

programs or tools. The students attend lectures, seminars and instructing or tutoring classes. During lectures, an average of 200–400 students attend and the instructing classes or seminars average around 30 students per class. As lectures or seminars often include the lecturers' own research, students often have options to get involved in research through internships or students assistant jobs, either paid or volunteering. The universities differ though in their program structure: in the first two undergraduate years, the courses at UQ are open and broad whereby students can select courses from different schools (e.g., psychology and law). At AU, students select their degree program upon entering university. To shed light on the way the broader structure affects responses, in all our analyses, we examined whether participants' experiences differed by university. Despite the differences between the universities and the different educational contexts in these two countries, in the findings reported below, experiences across the two contexts were rather similar. We therefore do not explore the role of these contextual differences any further.

We examined our hypotheses using interpretative phenomenological analysis (IPA)—a constructivist epistemological approach (Lincoln and Guba, 1985). Because constructivism relies on a relativist ontology, which assumes multiple realities and a subjectivist epistemology (Denzin and Lincoln, 2000), this methodology allows us to gain an understanding in how participants create meaning and develop an understanding of self and identity (Guba and Lincoln, 1994; Schwandt, 1994) by sharing their experiences with the researcher (see Crotty, 1998; Chamaz, 2000). This approach is therefore optimally suited to assess our research questions that relate to the detailed examination of a particular phenomenon (students' identity formation) as it is experienced and given meaning in the life-world (academic environment) of a particular person (student).

MATERIALS AND METHODS

PARTICIPANTS AND CONTEXT

We recruited participants with different family educational backgrounds, ages, course levels, and study programs. At AU in Denmark, 26 students (11 undergraduate and 15 Masters students, five men and 21 women, with an average age between 24 and 25, ranging from 19 to 43 years of age) were interviewed. At UQ in Australia, 11 students (nine undergraduate students, one Honors and one Masters student, six women and five men, with an average age of 21, ranging from 18 to 31 years of age) were interviewed.

Twenty-four participants were considered first generation students (including 11 students with two parents whose highest level of education was high school and 13 students with at least one parent with a vocational background as the highest level of education, of these 17 students were from AU and seven students were from UQ). Thirteen students had at least one parent with an academic background (nine students from AU and four students from UQ).

Participating students studied in both the natural and social sciences (from 8 different fields at AU: Psychology, Political Science, Pedagogical teaching development, Business and Economy, Nano Science, Odontology, Medicine and Molecular Medicine, and from 7 fields at UQ: Psychology, Business

Administration, Speech Pathology, Social Work, Mathematics, Biology, and Chemistry).

PROCEDURES

Data was collected at AU from October 2011 until June 2012, and at UQ in May and June 2013. All students volunteered to take part in one and a half hour semi-structured interviews and these interviews were carried out on campus in a relaxed atmosphere.

At the University of Queensland, ethical clearance was obtained from the school of psychology and the study was conducted within the guidelines of the National Statement on Ethical Conduct in Human Research. There are no ethical guidelines for conducting this type of qualitative interviewing in Denmark and, at this site, no clearance was obtained. In both samples, students were informed about the purpose of the study and gave consent prior to interviewing.

The interview focused on students' lived educational experience. From these experiences, the meaning of and connections between four general concepts were investigated: bridging and bonding forms of social interactions (social capital), academic identity formation, professional identity formation, and academic achievement. In this way, we aimed to identify the dynamic between forms of social capital and academic and professional identity formation taking as a starting point the student's own experience of their educational context.

The interview consisted of several parts. First, participants were encouraged to talk about their experiences before entering university. They were asked about their background, how much their family and friends expected university attendance, how they decided on their topic of study, and how they experienced the transition from school to university. The second part of the interview consisted of questions about experiences as a university student. Part one and two were intended to shed light on *earlier* and *present* experiences of being in an academic culture and their prior social capital. The third part of the interview asked about phenomenological experiences that had affected participants' self-understanding, both as academics and as professionals and/or learners. Generally the questions were non-directive and open-ended. For example, participants were asked: "Tell me about an experience that has had an impact on how you see yourself now or in the future?"; "What happened in that situation?" and "Who was involved?"; or "Describe this form of interaction in your own words?"; "Why do you think that this experience had that effect?"; "How much did you think about it afterward?"; "How often do you have similar experiences?" This gave us information about experiences of social interaction that affected the student's learning or academic and professional identity formation as well as detailed information on the nature of the social capital that was gained.

Sampling was carried out until a sufficiently diverse sample of interviews had been included and until no new topics emerged (determined both by theory and data, Guest et al., 2006). Interviews were audio-recorded and subsequently transcribed. Transcription involved documenting all interviews conducted in Denmark and parts of the interviews conducted in Australia including comments on expressed emotions during the interviews.

ANALYTICAL TECHNIQUE

Data were analyzed using IPA. IPA is particularly useful when exploring dynamic topics such as sense-making, self and identity (Smith, 2004). This is because IPA is based on phenomenology and symbolic interactionism and holds “that human beings are not passive perceivers of an objective reality, but rather that they interpret and understand their world by formulating their own biographical stories into a form that makes sense to them” (Brocki and Wearden, 2006, pp. 87–88; see also Smith et al., 1995; Smith, 2004). The role of the interviewer in this process is to encourage elaborations that increase knowledge about the phenomena under investigation and the connections between recognition and identity formation. The aim of IPA is to explore the detailed processes of how participants make sense of their own experiences (Smith et al., 1997; Chapman and Smith, 2002). This was achieved by examining how participants accounted for the processes of interpretation that made their experiences understandable to them.

To benefit from the full sample, all interviews were manually analyzed (maximum variation sampling, Patton, 2002) by the first author following the procedural guidelines associated with IPA (Smith, 1996; Smith and Osborn, 2003; Brocki and Wearden, 2006). A first step involved a careful and close reading of the transcripts and recordings followed by a continuous cycle of reduction and interpretation focusing on broad themes followed by a more fine-grained comparison between interviews. In the second step in the analysis, all participant statements along with condensed comments relating to a specific theme were copied into separate theme documents. These theme documents were first subjected to an iterative process of rechecking interpretations followed by an axial coding process aimed at identifying connections between the themes. These connections were annotated to understand processes and “thickness” between themes, as in the number of occurrences of a specific connection (Smith, 2004). This allowed for the development of greater insight into how a process occurred and how a particular connection was made between a form of social interaction, academic identity, professional identity, and academic learning. In the second step, the analytical focus shifted from the experience of the individual to a focus on comparative experiences through the pooling of quotations and connections that were found between themes. In this process, the original data (or the student’s own words) were included in the documents to ensure that their meaning and experience was not lost when generalizing across individuals.

FINDINGS

The results of this study will be presented in the following order. We start with an analysis of interactions with other students that affect bonding and bridging social capital and academic and professional identity formation. We then examine social interactions with educators that give rise to bridging social capital facilitating academic identity formation, followed by social interactions between students and educators in relation to bridging social capital that facilitated professional identity formation. Finally, we explore the perceived opportunities to develop bridging social capital. In all our analyses, we examine processes separately for students from lower and higher educational family backgrounds.

SOCIAL INTERACTIONS WITH CO-STUDENTS AND BONDING AND BRIDGING SOCIAL CAPITAL

The most prominent and salient relation found among all participating students’ experiences was the relation between social interactions with co-students and gaining bonding social capital. However, looking more closely at this relationship, not all experiences of gaining bonding social capital with co-students were equally effective in facilitating academic and/or professional identity. The extracts below illustrate how students from both backgrounds all perceived that engagement in extra-curricular activities in particular were not useful for developing academic identity. We first present the extracts from students from lower educational family background.

At the beginning I was very interested in extra-curricular activities but as the semester went on it got more difficult to...like...being motivated to do that. I didn’t feel like I became closer to feeling like an academic by joining them, not many of these activities are related to the academics. It is just activities provided in the higher academic context, really, and that can be convenient, but I don’t find them to support my academic identity (Georga, Speech Pathology, Lower educational family background, UQ).

I don’t join the extra-curricular activities. This is not a place you go to find community or your identity. This is a place you go when you have that already (Miriam, Psychology, Lower educational family background, UQ).

As students from a lower educational family background indicated, they benefited most from academic related interactions with other students.

I think that my academic identity benefits the most from activities related to the academic learning. Like when we discuss things in small groups and we talk about the topics and you can tell that you become better at discussing things over time. Then you feel more like an academic. Not only do I not relate being an academic to extra-curricular activities, I don’t really enjoy them either (Emilie, Medicine, Lower educational family background, AU).

I really need a study partner to discuss things with...here you can be open and explore things...also talk about the things that are difficult. If it is a good functional relationship you help each other in being confident about being an academic. I think this is so much more beneficial than joining other stuff. I really don’t feel like going to all that (Claudia, Medicine, Lower educational family background, AU).

These extra-curricular activities are hard to go to, as everybody seems to know each other or someone. You need to feel like you belong and feel safe in displaying that before you go. Discussing academics with a fellow students is much more supporting to my identity (Georga, Speech Pathology, Lower educational family background, UQ).

The following extracts describe experiences from students from a higher educational family background. Students from higher educational backgrounds seemed to enjoy extra-curricular activities more than students from a lower educational background but they too perceived these extra-curricular activities as not essential to their academic identity formation or their

academic achievement. For example, students from higher educational backgrounds mentioned:

I like being part of something here. It provides safety in a way. That I'm part of something that I can be proud of, like a community feeling. But I don't really attend all the extra-curricular activities that they provide. Even though our tutors suggest them. But what I need is more social relations that relate to my study. Because I need to feel that I'm on safe ground, seeing myself as an academic. I need interactions that can support me in that (Lea, Odontology, Higher educational family background, AU).

We do have lots of possibilities to go to parties or hangout in general, have fun. However, I feel that I need more activities that are field related to form my identity here. This is what we (students) really need to feel confident and feel like academics. But there aren't that many of such activities in our field. Mostly you can just join extra-curricular activities about other things, like a party, sports or clubs of some sort (Mathew, Chemistry, Higher educational family background, UQ).

I prefer social interactions in the academic courses rather than in non-related activities. I just really benefit so much more from talking about the curriculum and us in that world, rather than going to parties or sports with co-students. . .that's ok too. . .but to me, interaction related to the field is what helps me to feel like an academic (Nicole, Psychology, Higher educational family background, UQ).

I do enjoy extra-curricular activities. But that said I don't really gain academic identity from it. What supports that is social bonding with a few students related to the course (Mathew, Chemistry, Higher educational family background, UQ).

We can be social from both extra-curricular activities and when we have discussions about the curriculum. As much as I enjoy doing sports or going to some event, this is not where I really support my academic identity. I have to be good in my field to feel that, and I only find out how well I do, when I discuss academic topics with others (Morten, Political Science and Government, Higher educational family background, AU).

In sum, the results showed that the social interactions related to academic learning rather than social interactions during extra-curricular activities were the interactions most closely related to a form of bonding social capital that facilitated academic identity formation. What we generally found was that students gained this beneficial bonding social capital from one-to-one social interactions with another student or within smaller group interactions when these interactions related to academic learning.

However, despite this, we found that students perceived that their interactions with other students were not providing high quality bonding capital that allowed them to successfully develop and build academic identity formation. Rather than developing their academic identity further, bonding capital only provided them with a sense of belonging. Even though this was important to make them feel at home at university and to persevere with their studies, it did not seem to make students feel confident about themselves as academics. In this study, students expressed insecurities about their academic position regardless of their level of seniority as students. What is more, students from lower educational backgrounds did not describe examples of interactions

with co-students differently from their counterparts from higher educational backgrounds.

I just really think that we have support in each other as students – just having a few friends that all share this process. Then we can keep each other on our feet and talk each other out of dropping out. I think we have saved each other from doing that several times by just sharing our understandings and worrying about the academic learning (Nicole, Psychology, Higher educational family background, first year, UQ).

We share our academic reading and understandings. It is so rewarding to have something in common with other students. This is convincing you that you can do this. You don't have to be the best. . . it just ensures you that you are not falling off the academic wagon (Emilie, Medicine, Lower educational family background, second year, AU).

I use social bonding with other students to share feelings, especially the difficult feelings, like admitting that this text was difficult for me, and then others agree they felt the same way. This way we support each other in believing that we will make it, like a sense of community that we will be ok staying at university (Theiss, Psychology, Lower educational family background, Third year, AU).

I interact with my study-partner, we try to keep each other at university, helping each other preparing for and passing exams. One-to-one has helped me, as we don't have that many social things relating to the curriculum. I have tried to manage one semester without a study-partner, and that didn't go well. It is important to support each other in staying at university. It helps when another person sees you as an academic (Claudia, Medicine, Lower educational family background, fourth year, AU).

The difficulties we have and the uncertainty that we feel, we handle by talking to each other about it. You can go for a long time thinking that you are the only one, until you finally have a talk with a co-student and find that she also feels that way. Then we help each other each time we feel lost with our studies (Lea, Odontology, Higher educational family background, fourth year, AU).

I believe that this group bonding that we have on some of the natural science courses like math and physics, it is really 100% what gets students through these courses. The others are there to pick you up on the days where you're not sure if you'll make it. They will keep you at university (Niels Nano Science, Lower educational family background, fifth year, AU).

In sum, students generally described social interactions with co-students as resembling bonding social capital that kept them on their feet in tackling their studies through mutual support and ensuring a feeling of belonging to the academic environment (Haslam et al., 2005). Interestingly too, while many students talked about the role of social interactions in helping them to develop bonding capital, they did not mention fellow students in relation to the development of bridging capital.

BRIDGING SOCIAL CAPITAL WITH EDUCATORS AND IDENTITY FORMATION

Our results show that bridging interactions between students and educators facilitated academic identity formation. However, students only described a handful of such interactions and all students described their interactions with educators as more

distant. The few examples we found representing bridging interaction between students and educators revealed no differences between students from lower and higher educational family background. For example, the following extracts represent descriptions of interactions by students from lower educational family background.

When I matter to my tutors, like when they interact with us to make sure that we understand, then it also makes me more confident that I will become one of them, you know. . . a skilled academic. Interacting with other students does not do that for me (Anthony, Social Work, Lower educational family background, UQ).

I have worked in a lab for an academic and we got to interact that way. Sensing that she invested time in me, wanting me to learn this, even if it was to really help her own project, it still made me feel like I was a good academic that had potential in this field (Gitte, Molecular Medicine, Lower educational family background, AU).

The following extracts are from students from a higher educational family background.

I have had a few interactions with an academic. She was really genuine and I felt that it made a difference to her if I understood her explanation about this topic. It made me feel like a talented student that she would go to this effort (Alexandria, Psychology, Higher educational family background, UQ).

I have only met one academic that actually talked to me. She gave me feedback on an exam and said that I had done some good work. That really helped me in viewing myself as an academic (Ira, Psychology, Higher educational family background, AU).

As can be seen in these extracts, students described certain characteristics that were attributed to them (i.e., talented student or skilled academic) during the few bridging interactions they had had and this facilitated academic identity formation.

BRIDGING SOCIAL CAPITAL WITH EDUCATORS AND PROFESSIONAL IDENTITY FORMATION

We only found a few examples of interactions between students and educators representing bridging capital that facilitated the development of students' professional identity. The extracts below illustrate how bridging interaction can build professional identity. The first extracts are from students from lower educational family backgrounds.

I find it really encouraging and inspiring when my lecturers are so helpful in explaining things, taking their time, either interacting during breaks or writing me an email. Well, when they have really good personalities, and try to help me understand, it is often putting the learning into a frame of what the field is about that is really helpful to hear them describe. I have ideas, but just as an outsider in a way, watching that world. . . they help me understand that world, so that I can become part of it. I am really grateful for that. Without that, although I might learn something, I don't feel like I develop as a professional (Steven, Psychology, Lower educational family background, UQ).

Interaction with lecturers or professionals is really necessary for this learning to be integrated in you, so that you start seeing

yourself as a person in this field, because then you understand the field and its values (Miriam, Psychology, Lower educational family background, UQ).

The following extracts are from students from a higher educational family background.

It is really important to me that the lecturers will interact with us, because that is the way we get this second dimension of learning . . . you know, understanding this in a context and also understanding ourselves in that context, how we are as professionals. Because they can explain to us about the field and how all this fits together. And I think that if someone is not interacting at all and things get complicated to understand because of this, I will just start using other sources. . . start watching other lectures from other universities if they are available online. If it's just for the learning, I can shop around (Mathew, Chemistry, Higher educational family background, UQ).

I don't understand so much about the future job in this, but if they (lecturers) interact with us, I get really inspired being with such bright people on a day-to-day basis. That really develops me as well. I start identifying with them (Morten, Political Science, Higher educational family background, AU).

THE DOWNSIDE OF BONDING SOCIAL CAPITAL AMONG CO-STUDENTS

One of the reasons why students only rarely mentioned social interaction with educators is that bonding interactions with other students hindered seeking out bridging interactions that could facilitate academic and professional identity formation. That is, membership in groups that provided bonding capital was also associated with a strong student culture that prevented students from considering joining new groups and developing new relationships, such as with students at higher course levels or with educators. The extracts below are students' descriptions of norms within the student group preventing students from asking questions or approaching educators. The extracts also show that students perceive educators as different from them and their student group. The following descriptions are from students from lower educational family backgrounds.

I look up to educators, but I don't really know any of them. We don't talk much to them. It's just not something we do as students. They seem unreachable in that way, like you would be crossing a line if you tried. All students think that way (Robert, Biology, Lower educational family background, UQ).

They (educators) were like heroes we couldn't ever speak to. It was just like they came from a different planet, or were like rock stars. Everyone would really like to approach them and discuss the topic but they were in our head unreachable. So distant to us, we just wouldn't do that. Nobody does (Nina, Psychology, Lower educational family background, AU).

I don't think that they (educators) distance themselves on purpose. Just the signal in them standing down there lecturing and we are sitting here passive – just listening. . . that way they come to seem very special, they are of course, they are lecturers and they are very skilled. But it's just like students inherit this unspoken rule from somewhere about a border that we are students and they are something else and we don't interact (Niels, Nano Science, Lower educational family background, AU).

The following descriptions are from students from higher educational family backgrounds.

We don't really talk to the educators. It's like we just know that we can't waste their time with our silly questions. It's just the way it is. It is like this in all courses. . . I guess we just know that as students. I think most students even get annoyed by other students that do not seem to be aware of this. Because we need the lecturers to talk to teach us, and not students using up the little time we have with them (Jacinta, Psychology, Higher educational family background, UQ).

We hardly ever contact educators, there is just a big gap, and when we have lectures it is just common knowledge among students that we don't ask a lot of questions. We have such a short time to hear them talk about things that it is just not something we do. If some students do that they are sent a lot of stares and sighs from other students, until they stop doing it. And also you don't just walk up to their (educator's) office, because we are just students and they are real professionals (Marlene, Medicine, Higher educational family background, AU).

In conclusion, regardless of family background, it appears that strong bonding social capital with other students may hinder other forms of social interaction that have the potential to give rise to identity formation.

THE AVAILABILITY OF BRIDGING SOCIAL INTERACTIONS

The process of professional identity formation was not only hindered due to students' own bonding social capital preventing them from approaching educators during lectures or classes, it was further complicated by the difficulty in finding occasions to engage in social interaction that could help them gain bridging social capital. The first extracts are from students from lower educational family backgrounds.

We do need interaction with educators to understand how to use this learning, but something prevents it. . . I'm just not good at taking such initiatives when I feel a bit out of place. I think that we (students) all just feel that they are very different from us. . . that they belong to something that we still don't (belong to). It's not a barrier that you just ignore (Damien, Natural Science, Lower educational family background, UQ).

I really need more support in finding out who I am as a professional. I can only gain that from educators here. But we don't have much interaction so it is difficult. . . maybe I should be better at approaching them, maybe I just don't do that enough, but I feel like I go out of my place if I do that (Erica, Psychology, Lower educational family background, UQ).

I think that it is so difficult becoming a professional. I wish I felt better about that whole side of me. I try to be very alert, when listening to them speak (educators). I wish I could just go up and talk to them and felt ok about that. I should maybe do that. . . I just feel that is wrong doing that. I'm not good at approaching people like that. They are way out of my league. So I don't. I don't feel like I can do that when I'm still just a student (Gine, Political Science, Lower educational family background, AU).

One noteworthy observation is that students from lower educational backgrounds frequently made internal attributions for the failure to develop professional identity ("I am just not

good at taking initiative," "not good at approaching people"). In contrast, there was a tendency among students from higher educational backgrounds to make external attributions for such failures. The extracts below are from students from higher educational family backgrounds and they focus on the hierarchy at universities, the limited opportunities at university for interactions between students and educators and "the way this system is set up."

We don't have much contact with professors and lecturers and so on, because they are of course at the highest level, where they write articles and do research and so on. Generally, we only have contact with a few clinical educators. This environment does not support a lot of contact between us. There are great distances in hierarchy within the academic field here at university. And educators belong to something else than us. . . we are just students. So we don't just meet (Soren, Odontology, Higher educational family background, AU).

I don't find much social interaction with educators. . . like lecturers they seem really far away sometimes, it's like interactions between students and educators is too far to bridge for either part. . . And there are not really any opportunities to talk or interact the way academic learning is set up in this environment We seem to belong to different groups and we don't really go out and play together, as there are no opportunities to do that. I guess it's that simple (Cecilie, Psychology, Higher educational family background, AU).

I wish that I knew more about me as a professional. That would support me so much in being here... I really need contact with educators to really get a grip on that, but there are not many opportunities to have such contact. The way this system is set up we hardly know any of our educators and they certainly do not know us. In my earlier experiences it was easier, because I knew my teachers and they knew me. They said things like. . . you can be this or this with your skills, I will support you in this. . . and so on, but no one gives that form of support here. That is so hard not having that, and that no one is supporting you in where you're going (Alexandria, Business Communication, Higher educational family background, UQ).

In sum, regardless of family background, it was difficult for all students to create occasions for bridging social interaction with educators. This also meant that professional identity formation was difficult for all students. However, there was a tendency for students from lower educational family background to make internal attributions whereas students of higher educational family backgrounds made external attributions for their failure to interact with educators.

DISCUSSION

We examined within two university contexts whether different forms of social capital facilitate academic and professional identity formation. In a nutshell, we found that social capital formation is an ongoing process that continues to affect identity formation after students have entered university. Despite the differences between the universities and the different educational contexts in these two countries, experiences across the two contexts were rather similar. This suggests that even though there are many differences between universities, these differences in structure, size, funding, educational philosophy, to name just a few, did not appear to shape students' experiences differently. Indeed,

it appears that the difficulty of identity formation is a process that was encountered by all students to the same extent and that these issues came to the fore not at a macro-level but in students' interpersonal interactions with other students and with educators.

Interestingly too, students' family background did continue to impact on their identity formation albeit in different ways than described in the literature. Specifically, previous findings suggest that engagement in extra-curricular activities provide, in particular for students from lower SES backgrounds, bonding capital opportunities that facilitate academic identity (Astin, 1993; Tinto, 1993; Pascarella and Terenzini, 2005; Kuh et al., 2006; Gardner and Barnes, 2007). In contrast to this previous work, even though we found that bonding social capital with co-students was perceived as beneficial for academic identity formation, students described social interactions relating to academic learning and the bonding capital they gained from such interactions as better facilitators of academic identity formation than interaction opportunities they had with co-students during extra-curricular activities.

What is more, while students from higher educational backgrounds seemed interested in such activities, several students from lower SES background mentioned that they did not enjoy participating in extra curricular activities. This suggests that offering extra curricular activities at university in an attempt to resolve identity issues may not be the answer for students from all backgrounds. In effect, such activities may foster continued inequality in opportunities on the basis of background. A more promising way to build bonding capital would be to consider ways to enhance opportunities for group based interactions, and in particular one-on-one interactions related to academic learning. Regardless of parents' educational background, students perceived this to be the most beneficial form of bonding social capital in facilitating academic identity formation.

Interestingly too, regardless of educational family background, we did not find any evidence that students gained bridging social capital from social interaction with co-students. This finding is at odds with previous research which has suggested that in particular minority group students can gain social capital by engaging with majority group students or higher SES students because this enhances their sense of belonging within the academic environment (Thomas, 2002; Scanlon et al., 2007). We can only speculate why we did not replicate these previous findings and suggest that because all students, regardless of educational family background, felt insecure about their academic identity, sharing experiences with others from the same or a different background may not have facilitated the development of bridging capital.

Even though bonding social capital with co-students that related to academic learning was perceived as the most effective form of bonding social capital, the social bonding capital that emerged from these interactions did not facilitate academic identity formation to a significant extent. Bonding social capital with co-students mostly enhanced students' feeling of belonging to the academic environment and supported student retention by creating a safety net that prevented students from dropping out. This finding is consistent with the work by Archer (2008) who

also calls attention to the many setbacks that students experience and that make them insecure and uncertain of whether they should continue their studies. The bonding social capital found in relation to academic learning may be a source of helpful support to cope with these fears.

There were also downsides to this bonding social capital. Bonding social capital also created homogeneous student groups that developed their own distinct group norms, with some of these norms prescribing members to not seek out contact with educators, thereby hindering the formation of bridging capital with educators. This finding is consistent with Putnam's observation that bonding social capital can be restricting and limiting because the strong social control within these social networks can limit its members' freedom of action (Putnam, 2000). There is also evidence that a lack of social interactions between students and educators negatively affects retention (Tinto, 1993; Dowd and Korn, 2005; Kuh et al., 2006; Scanlon et al., 2007) and our findings show that the lack of such contact also negatively affects the formation of academic and professional identity. Our results indicate that students may cope with the challenges of university life by bonding with co-students. Even though this is associated with beneficial effects for students, this may not help them to develop their identities to their fullest, especially their professional identities, or achieve their highest academic learning outcome possible.

In this study we found that students' bridging social capital with educators was the facilitator in students' academic and professional identity formation. Unfortunately all students felt that bridging social capital was difficult to obtain and therefore professional identity was difficult to develop. Interestingly, students' parental background did not affect the perceived difficulty of forming professional identity. In the countries represented in this study, educational opportunities are fairly open to all students. However, there was a tendency for students from lower educational backgrounds to be more likely to make internal attributions for the failure to develop professional identity while those from higher SES backgrounds were more likely to make external attributions for such failures.

Difficulty in forming academic identity and professional identity in particular, may therefore be experienced for different reasons. It could be that high SES students are generally used to more contact with educators than low SES students (Calarco, 2011). High SES students may therefore be more vulnerable when they experience a gap in student—educator contact and when they do not get the same level of attention from teachers as they were used to receiving in high school. This can leave high SES students vulnerable because they are not prepared for such a situation. In contrast, even though low SES students may be used to less contact and support and therefore may be more resilient in this situation (Kim and Sax, 2009; Calarco, 2011), they too may not have the means to obtain bridging social capital with educators and they may attribute this to lack of personal communication skills or they may associate it with cultural norms (Stephens et al., 2014).

Regardless of the specific reason for the difference in attributional style by educational family background, it is clear that external attributions for the failure to develop professional iden-

tity are more self-protective than internal attributions for such failure. Furthermore, attributional style differences can contribute to the maintenance of social class inequalities in that it is higher SES students who will demand better a better service by the educational system whereas lower SES students will not push for structural change to improve opportunities to develop professional identity.

Our results suggest that to overcome such barriers, students from both lower and higher educational family backgrounds may benefit from social interaction opportunities that are planned around academic activities. These should not just focus on fostering bonding interaction among students but also on creating opportunities for the development of bridging social capital, which, in turn, is essential for students' professional identity development.

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Finding an apprenticeship: hidden curriculum and social consequences

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In Switzerland, the majority of students are oriented toward professional training after compulsory schooling. At this stage, one of the biggest challenges for them is to find an apprenticeship position. Matching supply and demand is a complex process that not only excludes some students from having direct access to professional training but also forces them to make early choices regarding their future sector of employment. So, how does one find an apprenticeship? And what do the students' descriptions of their search for apprenticeships reveal about the institutional determinants of social inequalities at play in the system? Based on 29 interviews conducted in 2014 with 23 apprentices and 6 recruiters in the Canton of Vaud, this article interrogates how the dimensions of educational and social trajectories combine to affect access to apprenticeships and are accentuated by recruiters using a "hidden curriculum" during the recruitment process. A hidden curriculum consists of knowledge and skills not taught by the educational institution but which appear decisive in obtaining an apprenticeship. By analyzing the contrasting experiences of students in their search for an apprenticeship, we identify four types of trajectories that explain different types of school-to-apprenticeship transitions. We show how these determinants are reinforced by the "hidden curriculum" of recruitment based on the soft skills of feeling, autonomy, anticipation, and reflexivity that are assessed in the context of recruitment interactions. The discussion section debates how the criteria that appear to be used to identify the "right apprentice" tend to (re)produce inequalities between students. This not only depends on their academic results but also on their social and cultural skills, their ability to anticipate their choices and, more widely, their ability to be a *subject* in their recruitment search. "The Subject is neither the individual, nor the self, but the work through which an individual transforms into an actor, meaning an agent able to transform his/her situation instead of reproducing it." (Touraine, 1992, p. 476).

Keywords: apprenticeship, recruitment, school streams, inequalities, autonomy, subject

Introduction

In Switzerland, once compulsory education ends, two-thirds of students are oriented toward professional training while the remaining third go on to general secondary education. For the former, the main driving force of their schooling and training orientation is their ability to find an apprenticeship when they reach the end of compulsory education (officially at the age of 15).

Based on 29 interviews (29) conducted in 2014 with 23 apprentices and 6 recruiters in the Canton of Vaud, Switzerland, this article compares the students' descriptions of their search for an apprenticeship with recruiters' accounts and analyses what they reveal about the institutional determinants of social inequalities at play in the system.

Indeed, educational background appears to affect access to apprenticeships. At the time when the interviewees were enrolled in the first cycle of secondary education (before 2013), the cantonal system was organized into three different educational streams at compulsory secondary school level. These educational streams were characterized by the juxtaposition of two processes. On one hand, students were selected at about 11–12 years old on the basis of their academic results and oriented in one or another stream accordingly. These three streams were thus parts considered hierarchical by the school actors, students, and families. On the other hand, each of these pathways was supposed to lead students to different educational and professional outcomes. The VSB (secondary school baccalaureate) stream trained students to enter high school and obtain a baccalaureate, a qualification granting access to all tertiary education institutions, including universities and polytechnics. These are the most prestigious higher education institutions in Switzerland and register around 22% of one age group in the Vaud Canton (Institute for Research and Pedagogic Documentation [IRDP], 2014). The VSG (secondary school general stream) was presented as an option that points students to schools of general culture or to vocational education and training and, eventually, to a limited sub-sector of tertiary education corresponding to Universities of Applied Sciences. Finally, the VSO (secondary school "options") stream was exclusively intended to take the weakest students and prepare them for apprenticeships.

Thus, the attempt to match different forms of training with students' academic abilities results in sending the weakest students to a professional stream, or at least to a stream in which the only educational outcome can be professional training. This also frequently leads to allocating students to one or another stream. The initial situation can be summarized as associating weak academic results with professional orientation as well as depriving most students of any kind of choice between vocational education and training and high school.

This education system became more complex in the 90's with the development of transitional structures at the end of compulsory education (Valli, 2012). Although first designed as a temporary measure to meet the needs of a growing number of young people facing unemployment as a result of increasing difficulties in finding apprenticeships in an economic recession, they ultimately became permanent. Over a period of 6 to

12 months, these structures offer practical and school-oriented activities, internships, orientation guidance, and assistance to find an apprenticeship (DFJC, 2014). They now account for about 20% of one age group in the Vaud Canton (SCRIS, 2011) and have been attended by 5 of the 23 apprentices in our sample. This is a reasonable match with official data.

Indeed, at the end of compulsory schooling in 2010 in the Canton of Vaud, 27.7% of students had a "general maturity" high school education (supposed to lead to university studies), 10.4% had a "general culture" high school education (giving them access to applied science universities) while 24% had professional training, 21% used transitional structures, 8% were waiting for a solution, and 7% registered for a "transition year" in order to move to a higher academic stream (SCRIS, 2011).

Education pathways thus appear more heterogeneous than initially planned as the training system was initially designed to allow direct transitions between the end of compulsory schooling and upper secondary education (Amos, 2007). In practice, an increasing proportion of schooling careers are not linear. Transitional measures accommodate a large proportion of students unable to find an apprenticeship while most students are trained in a pathway that is formally presented and assumed to prepare them for an apprenticeship.

At the same time, in recent years a number of companies were unable to find applicants for the apprenticeships they offered (SEFRI, 2013). Several explanations help understand this situation. Firstly, part of the training' companies have been known to reject some of the applications that they received after having judged them to be unsuitable (LINK, 2013). Secondly, young people are deserting a range of industries such as construction, hotel, and catering services sectors. From one point of view, "Choosing an apprenticeship in these sectors doesn't seem to offer a real future to young people, since the possibility to operate a professional reorientation and transferring knowledge from one CFC (Federal Certificate of Capacity) to another seems rather uncertain" (Sigerist, 2003, p. 21). On the other hand, using the approach developed by Dubar (1991), one can make the hypothesis in professional socialization terms, that the process of professional insertion via an apprenticeship is more defined by a dynamic process of identity construction than stabilizing individuals in the labor market. It is likely that some jobs or, more generally, some sectors are being ignored by future apprentices partly because of the weak social recognition they are associated with.

Conversely, some apprenticeships, such as commercial employee training, are highly esteemed by young people (SEFRI, 2014). The same applies to apprenticeships linked to occupations in the field of computer sciences, the processing industry, sales, health, or social activities (LINK, 2013). The concentration of apprenticeship requests on specific types of training contributes to stiff competition between candidates, competition in which personal resources can play a significant role. This competition is also stimulated by demographic change, structural changes, apprenticeship development policies and the ability of Swiss companies to offer training. As such, the percentage of Swiss companies that are able to train young people currently amounts to 40% (SEFRI, 2014). This competitive situation can accentuate

some forms of discrimination, whether they are directed toward candidates of immigrant descent (Imdorf and Seiterle, 2015) or are gender-related (Lamamra, 2011).

When dealing with increasing numbers of applications, employers tend to either favor young people from the most demanding academic curricula instead of those from curricula initially designed lead to apprenticeships (Perriard, 2005) or they favor older people thereby guaranteeing greater maturity according to them (Vanheerswyngheles, 1996). Research carried out since the beginning of the 2000s shows the existence of segregation mechanisms during the search for a place at the beginning of the apprenticeship (Imdorf, 2013; Imdorf and Seiterle, 2015) or at the end when entering the labor market as a professional (Fibbi et al., 2003). Others have studied factors of success during the training period (Häflì and Schellenberg, 2009), acknowledging difficulties experienced by apprentices when building their sexual and professional identities (Duc, 2012; Lamamra, 2014), as well as reasons why some apprentices cease their training (Lamamra and Masdonati, 2009). The TREE (Transition from Education to Employment) study which was based on a longitudinal survey of a cohort of students who finished compulsory schooling in 2000, provided structural explanations by highlighting the non-linear nature of trainees' pathways and the roles of transition solutions between schools and apprenticeships (Amos, 2007). Nevertheless, this kind of training process is insufficiently explored in relation to the place that it occupies in the Swiss training system (Cortesi and Imdorf, 2013). Processes that build access to an apprenticeship and determine the possibility of training, in particular, are still poorly understood.

The match between supply and demand is a complex process that not only excludes some students from direct access to professional training but also forces them to make early choices (or accept their lack of choices) regarding their future sector of employment. How does one find an apprenticeship? We hypothesize that social inequalities identified in previous research as characterizing access to apprenticeships can be explained not only by students' academic and social backgrounds but by how the dimensions of educational trajectories and social backgrounds combine and are accentuated by a "hidden curriculum" used by recruiters during the recruitment process. A "hidden curriculum" can be defined as "the proportion of learning that does not appear to be programmed by the educational institution" (Perrenoud, 1993, p. 61) but which still influences the probability of obtaining an apprenticeship. In this case, this hidden curriculum thus consists of knowledge and skills that are not taught by the educational institution yet which appear decisive in obtaining an apprenticeship.

The following section clarifies the methodology used to explore this issue while the third section presents the results. Firstly, it corroborates what previous research has shown regarding the impact of educational and social determinants and identifies how these dimensions interact by comparing students' trajectories with access to apprenticeships. Secondly, it uncovers a hidden recruitment curriculum through an in-depth analysis of recruitment criteria in the recruiting process as they emerge in the descriptions provided by students and

recruiters. This is characterized by the importance recruiters give to soft skills such as "feeling," autonomy and anticipation. Lastly, the discussion section questions the implications of such a hidden curriculum and how it promotes students who are able to present themselves as a *subject* in their recruitment search. Touraine has shown that the subject arises as a consequence of an effort produced by the individual to override social constraints. It refers to the participant's share of liberty and implies a process of self-reflection. The subject can be subsumed by three characteristics: ability to distance oneself, reflexivity, and affecting social situations.

In the frame of our study, such an approach allows the analysis to be focused on individuals' representations and strategies. It leads to questioning the context of apprentice recruitment as either facilitating or affecting the student's ability to present himself as a subject. Methodologically, this assumes that interviewees are considered as "actors, and not as objects of observation." (Touraine, 1982, p. 20)

Materials¹ and Methods

Comparing Apprentices, Recruiters, and Institutional Accounts

In order to reveal the hiring practices and hidden curriculum involved, we conducted qualitative research on both apprentices and recruiters. The sample of young people interviewed ($n = 23$) comprised 11 men and 12 women aged from 16 to 25. Two of them were interviewed during their first year of apprenticeship, six of them during their second year, four of them during their third year, and one of them during his fourth year. Seven of them had completed their apprenticeships. Five of them had been through transitory measures, i.e., nearly one in four. The training programs represented in the sample include a technician, a dental assistant, two pharmacy assistants, a carpenter, two hairdressers, a civil engineering designer, eight commercial employees, two sellers, a heating installer, two booksellers, a pastry confectioner and a 3D polydesigner.

The recruiters ($n = 6$, four men and two women), or persons in charge of apprentice recruitment in the companies are either business managers, store managers, or people attached to services that specifically deal with company staff. None of the six recruiters occupied the same position in their respective professional contexts. During the recruitment process, they are assisted by others individuals in the company who intervene at different stages in the process.

Each interview was conducted in a semi-directive manner based on the comprehensive interview method (Kaufmann, 1996). After preparing an early version of two different interview grids, one for apprentices and one for recruiters, and conducting a first wave of 15 interviews at the end of March 2014, we readjusted the apprentices' grids according to the responses we obtained. This readjustment mainly consisted in sorting the

¹All interviews were carried out in the frame of collective research by 23 students who were involved in our sociology of education seminar. We want to thank them for their investment in this project.

questions in order to start with the more general ones and leave more room for the apprentices to first explain what seemed important for them in their apprenticeship and, more broadly, in their schooling history. This became necessary given that the first wave of interviews lead us to acknowledge that what we initially hypothesized, i.e., the standardized tests that companies sometimes use to hire apprentices as being important, these were not central to the apprentices' comments and this hypothesis should be abandoned. After these modifications, a second wave of 14 interviews with new interviewees was conducted at the end of April 2014. Questions were organized into three themes: beginning an apprenticeship, schooling, and family background. Each theme was firstly interrogated using a very broad question, aimed at letting the interviewee explain what seemed important to them. Follow-up questions were then asked to obtain more detailed information. In the end, the student was asked if they thought there was any important information that we did not ask about but which seemed important to them. Both grids resulted in the same information being obtained but the second version allowed more flexibility for interviewees to organize the story they wanted to tell by themselves. As for recruiters, the interview grid included five thematic sections: the company as a training space, recruitment methods, application file selection, hiring interviews, and probationary training-periods.

The choice to compare the accounts and practices of two different groups of actors, recruiters, and apprenticeship candidates is driven by our aim to shed light on the components of the hidden curriculum by comparing their perception of the process. Interviewees were selected at random. Some belonged to our students' social environment while others were recruited in their workplace after asking them if they would agree to participate in some research. They were not paid for their participation abiding with local and disciplinary tradition. Although the sample size in itself does not allow generalizations to be made, the range of companies in which apprentices and recruiters were involved coupled with similarities in the aspects they raised despite this contextual diversity, supports some generalization. Furthermore, these generalizations were made possible by intensive analytical work carried out on the interviews. In-depth analysis "revealed the consistency in attitudes and social behaviors, by grounding them in a history or a trajectory that is both personal and collective" (Beaud, 1996, p. 234) but also by comparing recruiters and apprentices' comments on their hiring and application practices, as well as the recurrences they raise.

The analysis was undertaken using an iterative approach in which we moved back and forth between data collection and data analysis and then between the analytical components themselves. These procedures are important to obtain quality data and produce plausible interpretations of the findings as well as reaching data saturation (Mukamurera et al., 2006).

This iterative approach involved a three-stage process to build an inter-rater agreement: "developing a coding scheme with as high a level of intercoder reliability as possible based on a sample of transcripts, (...) adjudicating the remaining coding disagreements through a negotiation among coders in an effort to establish a high level of intercoder agreement (...) and

deploying that coding scheme on the full set of transcripts once acceptable levels of intercoder reliability and/or agreement have been achieved." (Campbell et al., 2013, p. 298). These three stages were applied to a two-step analysis exercise. Firstly, a thematic analysis of the transcribed interviews was undertaken based on the following question: what dimensions in the recruitment process are identified as significant by both apprentices and recruiters? Next, using the same procedure, we undertook a life-course analysis with each interview. By considering several variables, such as sex, social origins, educational background, or the kind of help the apprentices had during their apprenticeship search process (social capital and family support), we identified four types of trajectory configurations that enabled us to build four ideal-type constructs to better understand the characteristics that help obtain an apprenticeship more or less quickly and, last but not least, to get into the chosen professional field, or not. Indeed, for different reasons such as inadequate school exam results, several interviewees could not get an apprenticeship in their desired professional field.

Once the two analysis exercises were completed, we went back to the interviewees' transcripts and proceeded to identify of all excerpts illustrating the various themes acknowledged as being central to the inter-rater agreement. The excerpts presented in the results section have been selected on the basis of their being representative, i.e., they illustrate dimensions that are transversal to various interview contents. The translation of the interview sequences was developed by focusing on the meaning given by the respondent and not through a word-for-word translation to guarantee semantic correspondence.

Results

Revealing the Hidden Curriculum of Access to Apprenticeships

How does one find an apprenticeship? This question is divided into two sub-questions that structure this section. These are, what are the educational and social characteristics that affect access to apprenticeships and how do these dimensions interact? Which dimensions are assessed in the recruitment process through interactions, once shortlisting based on academic records is over?

Access to apprenticeships: various trajectories, diverse outcomes

The students interviewed were all apprentices, but had experienced very different transitions to apprenticeship depending on their previous educational streams, atypical schooling trajectories, family support and social capital.

Educational streams

Our research corroborates other studies on school-to-work transitions. Firstly, like Haeberlin et al. (2004), the educational pathway followed appeared to influence the quality of the transition, especially the time searching for an apprenticeship. The less prestigious the school career, the longer the length of the search. Moreover, although all of interviewees from the VSB stream, without exception, found an apprenticeship in their

intended professional field, a majority of interviewees from the VSO stream (three out of five) could not obtain an apprenticeship in the fields that they wanted. This supports an observation previously made by Rastoldo (2006) in a study undertaken in the Canton of Geneva. Indeed, the recruiter's responsibility goes beyond hiring an apprentice who can satisfy the company's criteria, as it integrates the educational dimension. Employing someone means giving access to academic training for the apprentice, and their expectations may be different and higher than those in the company. As the success of the apprenticeship is based on the apprentice's ability to manage both academic training and professional integration, the recruiter has to assess the two dimensions simultaneously. In this regard, the previous schooling stream appears to play an important role in identifying the "right" apprentices, and students seemed to be very aware of the labeling process at play in schooling streams:

"When I applied for this apprentice position, it was absolutely not what I wanted to do (retail trade apprenticeship), but I was pretty sure they would choose me as I came from the VSG schooling stream so I was more... I was a bit better than the others."

(Apprentice, commercial employee, female, 20 years old)

"The fact that you have a high school diploma helps them to know that you have general knowledge, so they don't ask for more."

(Apprentice, bookseller, 21 years old)

"When hiring me, I'm sure that the boss wasn't taking many risks at the education level, results and so on, because he knew I went to high school and university. On the other hand, for someone who comes out from VSO, this will be... maybe a higher risk for them, for you to succeed in your apprenticeship so that they don't hire someone just... to look nice." (...) "Now, if you come out of a VSO or VSG stream, well, forget it, it still tough."

(Apprentice, dental assistant, female, 23 years old)

And indeed, when this dental assistant described the way she was hired, she underlined the fact that she neither had to write a letter of motivation nor to go through a formal interview.

Atypical schooling trajectories: a possible asset

As studies have already shown (Amos, 2007; Lamamra and Masdonati, 2009), atypical trajectories, in the sense that they do not embed in the linear model envisaged by the Swiss training system, are far from being exceptions. Still, students tended to perceive atypical education trajectories, and especially transitional structures, as stigmatizing and a possible handicap for pursuing their education. Among the young people we interviewed, five apprentices attended a transitional structure and six others initially went to high school (four of them completed it), meaning that almost half of our sample can be characterized by a non-linear trajectory. Although recruiters did not value all atypical trajectories, some of them, by contrast, appeared to be sought after.

In the case of apprenticeship access, in the majority of cases, a non-linear trajectory, providing that the transitional period had been a success (completion of other studies, a language course abroad, commenced a first apprenticeship and then changed for another, or completion of a transitional measure), provided a

certain advantage. Going through a transitional measure could thus be turned into an advantage, as the following interview extract shows:

"For a young student coming out of VSO, I have to say I am a bit reticent, but for a VSO student who does an OPTI² year with good results, there's no problem because they have gained an additional year of maturity. I really do think everything depends on maturity."

(Recruiter, human resources manager, insurance company, female)

Furthermore, having followed other post-compulsory forms of education also appeared to provide some advantage. Among the six young people who went to high school before starting to look for an apprenticeship, five found a post within less than 2 months (only one had been looking for a placement for 3 months before finding one). The applicants without a high school education, that is to say the majority of them, have been looking for a placement for more than 4 months (four of them have been looking for 6 months or more). For example, an apprentice working on heating design projects who studied at high school for just a few years without completing it, mentioned that the company he applied to did not ask him for anything other than his CV and his highest school marks. A single interview was sufficient to be hired. Those profiles thus seemed to be particularly sought after by a certain type of employer as shown by the following extract. We can hypothesize that these profiles raise more interest in small companies where the apprentices are more likely to be rapidly subjected to performance imperatives:

"I think in the kinds of activities we're dealing with require a certain kind of maturity, I mean... we are not necessarily more mature at 18 than at 16 years old, but we estimate that people who are older than 18 have already acquired a kind of maturity and have often followed an upper-level school career, whether they've completed high school or decided to stop it for several reasons, such as, well, failure or a lack of motivation, but they are still often people who have got the ability to obtain a high school degree."

(Recruiter and trainer, Carpentry Company, male)

Moreover, although transitional measures increased the chances to obtain an apprenticeship position, they did not appear to increase the probability of accessing an apprenticeship in the desired sector. In this regard, high school education made a difference as only one former high school student told us he could not start the training he wanted to. Non-linear trajectories are also valued because they provide employers with apprentices that are a bit older, using age as a criterion. Discussing the recruitment interview, an apprentice answered:

"I had anticipated the fact that I was older and that maybe I was more aware of the importance of this type of training."

(Apprentice, commercial employee, female, 21 years old)

Another apprentice, following the same commercial apprenticeship, emphasized that:

²The Organism for scholar Improvement, Transition and professional Insertion (OPTI) is a transitional measure receiving young people between 15 and 18 years old requiring an additional year to find their way.

“When I finished school I was too young for an apprenticeship. I was 15, I was a bit lost so I did not even apply for one. But when I turned 17, after I went through transitory measures, I felt ready. During the recruitment interviews I put forward the fact that I was now mature enough, that I had done several training courses and that I was ready to do an apprenticeship now!”

(Apprentice, commercial employee, female, 20 years old)

A recruiter corroborated the fact that being older was more of an advantage than a constraint:

“We assume that someone who is 35 years old has what is needed to take it upon themselves to give themselves the means to succeed.”

(Recruiter, Electricity Company, male)

And indeed, among the young people we interviewed, those who were 17 years old or more when they decided to start (or recommence) searching for an apprenticeship placement found a position within 2 months of looking, while those who were 15 or 16 years old experienced a longer period of searching with. None of them found a place within 3 months, but more often within 4–6 months.

Family support

Research has already shown the importance of family support for schooling and social trajectories (see, for example, Pourtois and Desmet, 1991; Parent and Paquin, 1994). Part of the interviewees emphasized the supportive role played by family members in their search for an apprenticeship, whether in preparing their application, learning how to manage interactions in the recruitment process or finding the motivation to finally enter an apprenticeship once they found a position:

“I have had help from my sisters who are older and know how to do it, so they helped me with the CV and the motivation letter.”

(Apprentice, commercial employee, female, 20 years old)

“Yes, my father coached me a lot; how I would have to behave during the internship. You have to show that you know how to work. I have a father like this. He explained to me how to shake hands, shake them energetically, things like that. Apart from that, my parents helped me quite a lot on my application, the letter and everything.”

(Apprentice, 3D Polydesigner, male, 18 years old)

“In the beginning, I didn’t want to go there (the pharmacy where she found her apprenticeship), but my mother told me “Come on, try it! You still haven’t found something.” Just because they pushed me, I accepted. If they weren’t there, I would have surely found anything whereas it was what I wanted to do. But you see, I was 15 years old and you are not necessarily aware. You don’t realize how important it is. I was 14 when I began to search for something and 15 when I found it.”

(Apprentice, pharmacy assistant, female, 21 years old)

Social capital

Likewise, the interviews also showed that the parents’ social capital influenced the chances of quickly finding an apprenticeship position and in the subject area desired by the student:

“Usually, in the company I work for, they only hire apprentices every 2 years and I just fell in the year they didn’t look for anyone. But I

got a boost from the employer I knew very well, that all my family knew, and he made a proposal to the company’s director to be able to employ me as an apprentice because he could see I was motivated for this job.”

(Apprentice, civil engineering designer, male, 19 years old)

The role of the family in finding an apprenticeship was highlighted when the apprentices were asked how they found an apprenticeship:

“It was my aunt, in fact. She was living in V. and she has been going to the same hairdresser for several years. She helped me to find this place. My aunt knew somebody so, it helped me to get this post.”

(Apprentice, hairdresser, female, 21 years old)

Asked if he was trained in his father’s company, another apprentice, answered as follows:

“No, it was another company. But it’s through my father that I got the post”.

(Apprentice, commercial employee, male, 22 years old)

Social capital can be defined as a “collective production used socially that corresponds to the whole relationships put into place between different protagonists in the student’s transition: student, teachers, and potential employers” (Lecoutre, 2006). It represented an important asset for a quarter of our interviewees, and seemed to be mainly provided by the family. Family support also appeared to exceed solely social capital. Indeed, the parents, and to a lesser extent, the elder members of the family often provided the student with two other types of support (Monette and Fournier, 2000): emotional support (encouragement, motivation) and instrumental support (helping to write and review CV’s and covering letters). The mother appeared to be the most important resource person in the students’ accounts, which is coherent with the findings of Bourdon et al. (2012). Along with family, transitional structures were also mentioned as important. Teachers, by contrast, were rarely mentioned in the comments of apprentices interviewed.

How do these dimensions interact?

To answer this question, we first characterized what was to be explained, i.e., ease in finding an apprenticeship, measured by the number of applications submitted and the length of time that the students spent searching, and the relative freedom of choice of the apprenticeship subject area. The decision to focus on the choice of a subject area, instead of the choice to do an apprenticeship appeared more meaningful for the comparison, as some interviewees had no other option but to undertake an apprenticeship. Relative freedom of choice was considered when the students expressed the feeling of having chosen an apprenticeship in a subject area that was meaningful to them.

Explanatory dimensions were characterized as follows: we defined linear schooling trajectories as those with direct access to an apprenticeship after compulsory education. The type of academic stream refers to the three types of streams that form the secondary compulsory education system in the Canton. Family support corresponds to students declaring that members of their family were helpful in some way while they were looking for

an apprenticeship. Finally, social capital corresponds to a family member using their network to search for an apprenticeship.

Comparing respondents' characteristics in this regard highlighted the multiplicity of configurations at play in student's trajectories. In order to reduce this complexity and make sense of the various trajectories, we opted for building up "ideal-type" constructs: "An ideal type is formed by the one-sided accentuation of one or more points of view and by the synthesis of a great many diffuse, discrete, more or less present and occasionally absent concrete individual phenomena, which are arranged according to those one-sidedly emphasized viewpoints into a unified analytical construct" (Weber, 1965, p. 181).

Four "ideal types" arose from comparing individual's trajectories that describe the four main trajectory configurations. The first two types characterize students who were able to easily find an apprenticeship in their chosen subject area, while the last two depict students who faced difficulties in finding an apprenticeship and had to take one they did not choose or value. The first type is characterized by linear schooling trajectories in the highest or medium academic stream, family support, and social capital used to find an apprenticeship that the student values. This type appeared to mainly relate to males. The second type depicts non-linear schooling trajectories in the highest or medium academic stream, access to high school and occasionally, university followed by a failure, some family support and/or social capital. The third type portrays non-linear schooling trajectories in lower or medium academic stream, use of transition measures, little family support and/or social capital and difficulties in finding an apprenticeship. Females appeared to be the main protagonists in this ideal type. Finally, the last type involves linear schooling trajectories in the weakest academic streams with no familial support.

Comparing these four ideal types revealed that what helps in understanding apprentices' ability to choose an apprenticeship they value was not so much the linearity of the schooling trajectory but the type of academic stream the student was assigned to.

Secondly, these ideal types showed a contrast between genders. The first ideal type depicted a trend that was specific to male students for whom an apprenticeship has long been the goal. These students were academically average to good, and they had the possibility to make other choices. The choice of an apprenticeship appeared here to be as desirable as the outcome of a socially enhanced education project. Conversely, the third ideal type portrayed a path for females with low to medium levels and little family resources to make the shift from a transitional measure to a tool that improved freedom of choice.

These four dimensions identified in previous research as affecting access to apprenticeship thus combined in distinctive configurations to influence not only the probability of access to apprenticeships but also ease in finding one and the ability to identify one that made sense for the student which was not perceived as a dead-end or a meaningless option. Nevertheless, these dimensions did not answer the whole question: they appeared to be crucial in going through the first steps of the recruitment processes, i.e., obtaining a preliminary internship

or an interview for an apprenticeship position. But a 'black box' remains concerning the specific moment of the encounter between the candidate and the recruiter during the recruitment process. It is important to explore this 'black box' as it sheds additional light on the four ideal-type trajectories but also accounts for possible variations.

Once a student is accepted for a preliminary internship or obtains an interview for a position, what is at stake in the process? In order to deepen our understanding, we carried out an in-depth analysis of what the interviewees' accounts revealed as important skills that are assessed in the face-to-face recruitment process. What is it that goes on during interactions between candidates and recruiters that influences access to apprenticeships?

Revealing the Hidden Curriculum of Recruitment

"There are more and more who do not understand how important their internship is."

(Commercial employee, male, 22 years old)

Company internships experienced by young people were one of the most important steps in the process of obtaining an apprenticeship. Interviews carried with recruiters enabled two types of internships to be distinguished, each fulfilling very specific roles.

The first one, that we will call the *orientation internship*, comes into play when young people are still in compulsory schooling, often between the years preceding their last year of compulsory schooling (when students are between 14 and 16 years old). These internships were either completed during school holidays or during school hours and geared to providing an opportunity to spend a few days in a company to discover "the professional reality." They contributed to helping young people shape their training choices.

In a second phase, occurring during the recruitment process, a second type of internship at play is the *selection internship*. Companies assemble a number of young people whose applications have been shortlisted. With one exception, every student and recruiter in our sample mentioned this first step in the recruitment process as a fundamental condition without which no contracts would have been signed. This internship lasted from 3 days to 1 week, under the watchful eye of one or several colleagues. Many applicants were then assessed *in situ*. Assessing knowledge was not a major issue in this process for the employers as the applicants had already been judged on their academic records and/or through different internal or external examinations to the company. However, soft skills were especially assessed.

Soft skills

"During the entire recruitment process, it is... we do try to see... if they also have soft skills. (...) Especially, soft-skills with the other apprentices. That's what we can see a lot. Young people who are chatting, chatting, chatting, who are saying lots of things that are inappropriate or young people who are very shy, who don't create bonds with others, who don't show any interests."

(Recruiter, public administration, female)

Without always openly using the concept of soft skills, all the recruiters have repeatedly mentioned the importance they gave to attitudes and behavior either during recruitment interviews or internships. In a corporate environment, the concept of “soft skills” refers above all to a prescription of behavioral norms that can represent, according to Lichtenberger (1997) and Ségol (2006), the behavioral, relational, methodological, transversal, and generic competences, as well as responsibility taking in different contexts. Thus, being able to meet those criteria, which can change according to the type of world³ established in different companies (Boltanski and Thévenot, 1991), seems to influence, as Perret-Clermont and Zittoun (2002) have already shown, the chances of obtaining an apprenticeship, and more generally, a smooth school-to-work transition. The statements of some of our recruiters clearly echoed those observations and grasped the role given to certain kinds of soft skill components during the internship:

“Well, for the young person, we will immediately see if they are shy, if they have a kind of greed, or openness, and in their speech, we will immediately see, I mean notice at least, education and respect. There are very simple things. So there’s the speech, and there’s the look that influences it a lot as well.”

(Recruiter, shop manager, large-scale distribution, male)

In addition to certain kinds of relational abilities, a type of language coupled with some respect for several esthetic codes was generally expected. The following extract is even more explicit insight into the importance of a specific type of “soft skill.” Indeed, the trainer considered it necessary to do some “cultural work” on the apprentice insofar as the apprentice must go through professional cultural integration, which requires an existing propensity, or according to him, some “predispositions”:

“There is some real cultural work to be done before this person can be sent to visit customers on their own 1 day. It’s something I really like to do if the person shows some predispositions and a positive attitude toward it. . . , at least those things I am looking for consist of being able to quickly send someone to visit customers alone to take measurements for minor matters, like taking a sequence of photos, for example. So I want to trust this person completely and this is obviously the first attitude I am waiting for and can feel. It is not so much a movie casting, but, well, it is the case to some extent.”

(Recruiter and trainer, Carpentry Company, male)

“Feeling”

“We have to find an apprentice that fits in, but they have to find a company that suits them too.”

(Recruiter, Carpentry Company, male)

Soft skills assessed during internships and interviews were interlinked with other employment criteria that proved to be significant. “Feeling” was mentioned both by students and

recruiters, and appeared as a central selection criterion. It refers to two components: firstly the notion of “intuition,” usually defined as a “form of immediate knowledge that doesn’t require reasoning” (“Petit Robert” dictionary) and secondly, according to our interviewees’ statements, to a positive impression the others give us. The expression of “elective affinities,” defined as an immediate sympathy based on shared tastes (Bourdieu, 1979), very directly influences the chances of getting the job, as the following extract shows:

“In fact I believe the principal criterion is that I get along with the person that we can imagine. . . . Because we are going to spend 3 years with this person, in a relatively close relationship, with some requirements and a responsibility for that person.”

(Recruiter, responsible of a cantonal office in the Canton of Vaud, female)

Similarly, the following statement highlighted how a positive feeling not only referred to something immediate and spontaneous (in this regard, the use of the expression “immediately” is eloquent), but also to what extent it proved to determine the applicant selection’ process:

“There are applicants that we immediately feel. They bring with them a full application file with a basic-check (a standardized test) that we appreciate. The installers immediately come to us “This guy, he’s great!” When I talk to them, I immediately feel it. Well, we don’t wait. We make a contract proposal not to let go of this great person. We don’t wait until we have several applicants’ files and say, “Which one will I choose? This one was good.” When we ‘feel’ someone, we immediately offer them a contract.”

(Recruiter, Electricity Company, male)

Describing a meeting he had with a potential apprentice, a recruiter from a big retail company said:

“When I arrived, I asked the customer service, “How is she?” And the colleague says, “Mum, I’ll let you see.” There was no joy in her words, and that told me what I wanted to know. I saw the girl on the other side, she may be very well and calm in her words, but the image that emerged was a goth style (. . .) I don’t see her doing the job. In any case, she does not fit in with my values.”

(Recruiter, Retail Company, female)

Still, this type of judgment can go both ways:

“Personal presentation can play a role (. . .) Once, I had an apprentice who had a lot of piercings, but she had so many other qualities which I identified early on that in the end those visual aspects (. . .) But it’s really unusual. . . .”

“I like people who have already dealt with a practical aspect of life in their own family history or in previous training courses.”

(Recruiter, Carpentry Company, male)

In the same vein, another recruiter mentioned taking on a student who was had a disability and was apparently not suited to the job, but he legitimized this by saying:

“We are taking responsibility and you have to know. Well, look at it this way, today maybe it’s this young person who needs help and

³In their book, *De la justification*: Boltanski and Thévenot (1991) identified different worlds controlling organizations in terms of conventions and agreements. Each of those different worlds refers to values, characteristics, and (un)enhanced subjects within them. For an introduction to those worlds, see the chapter of Imdorf and Seiterle (2015) that articulates inequalities faced by young people of immigrant descent at the beginning of an apprenticeship, with the nomenclature of certain worlds encountered in different companies.

maybe tomorrow it's me and if I have someone stretching out their hand, I may be happy. But, one should not think that you have to do it. . . just to help." (. . .) "I try to make my own mind up, using my feelings to see if I get a 'feel' for the young person. I don't know how to say it, but those are things that one can feel. With some young people, it doesn't happen, so it can be a criterion to say no, it did not happen, I don't feel like it." "When you 'feel' someone, you offer them a contract straight away."

(Recruiter, shop manager, large-scale distribution, male)

From the recruiter perspective, "feeling" and "elective affinities" appeared to be sensitive issues in the recruitment process, but these can't be expressed in a general equation that would imply the promoting a specific type of behavior. "Feeling" and "elective affinities" depended on both the company's professional organization and the recruiter's specific expectations that were influenced by their values and how they defined their role.

From the young person's perspective, having a good feeling about future employers and colleagues was equally important. Having a good feeling testified, in many cases, that the interview went well and that their chances to get the post were high. The following extract is revealing in this respect. Indeed, when the researcher asked the interviewee how his job interview went, he answered:

"Yeah, I had a very good feeling. So I left the interview and I was like, yeah, that's it! That's it, I've got the placement!"

(Commercial employee, male, 22 years old)

A second year female apprentice in commerce expanded on the same comments:

"I felt quite at ease. Well, there is always this question about virtues and shortcomings, but in the end I knew how to answer because I had prepared for that. But yes, I really felt at ease, because, as I was saying, we had a good feeling. So, after that you are not stressed anymore."

(Apprentice, commercial employee, female, 19 years old)

"During the interview, they asked very specific questions about the company's identity. They asked me if it was an issue for me to wear a uniform, if the specific way they organized the work and the relationships between people within the company was fine with me, etc. What helped me was to know about the job; it helps a lot to know what you are talking about. I also used the file I made with all my former training placement assessments made by those who were responsible for me so that they have a fresh look at me, from another company, I mean."

(Apprentice, 3-D Polydesigner, male, 18 years old)

As with the recruiters, the apprentices' statements revealed the roles of "feeling" and "elective affinities" between a candidate and a recruiter. They highlighted the potential flexibility of selection criteria, depending on how two visions of the world interact. This was particularly saliently put in the following interview extract from a 22 years old medical secretary apprentice and mother of a young child:

"At first, I made the mistake in my application letter of saying I had a baby. I wanted to explain why I had an empty year in

my curriculum vitae, but I should not have mentioned that (. . .). During the interview, they were very worried about my daughter getting sick; they asked a lot of questions about that. If she gets sick, do I have someone I can call who can take care of her, and logically, I couldn't say yes as I only have my grandmother. I said she may take care of her but otherwise, I also have a contract with the Red Cross so I can call them, and they come to take care of her. . . I felt they were really concerned about that. . . But when I went to this insurance company, they did not make me feel this way because amongst the people that were there at the interview, one of the women said she had a baby while she was studying, so that was possible to do. After that, it's clear that they did not ask me questions about my family and all that, so maybe she had a family and she told herself that it was the same for me. But, it's true that with the others we went into more detail and when I start with the details it may be a bit frightening."

(Apprentice, commercial employee, female, 22 years old)

It is not simply the demonstrated characteristics of the candidate that affected their ability to obtain an apprenticeship but also the perception the recruiter had of how these characteristics may interfere with the professional activity.

"Feelings" and gender: the influence of stereotypes

Although the apprentice interviews exposed no differences between males and females in the recruitment process and its outcomes, interviews with recruiters suggested some invisible institutional barriers that shed light on the gender-related ideal-types previously identified. In one case, a recruiter from a public administration body stipulated that she, personally, did not hire men for apprenticeships positions because she felt more at ease with women:

"Well, how do we hire? That's a tricky question. We used age criteria because that was the easiest, so we took not too old and not too young, for different reasons. I did eliminate men, because I always wanted to have women (laughs)."

(Recruiter, Public Administration, female)

Here again, we can see how personal preferences could affect the apprentice's selected profile and introduce a gender bias. On the other hand, another recruiter underlined how unexpected it was to see a woman able to manage a team of men when he described the role of a former apprentice he hired:

"Girls? No problem. Girls that come here, who are ready to undertake this profession, are better than men when it comes to leading a project. Because I push them to develop authority, one has to show their teeth without being aggressive. I remember two apprentices, they were managing these men very well. And in order to do so they needed to be extremely competent, as much as men, that goes without saying, but with an additional skill that is natural authority. This becomes increasingly important (. . .) and we were saying, "that's incredible, those girls, they are 22, 23 years old and they manage projects with 10, 15 tradesmen and at least as many workers."

(Recruiter, Carpentry Company, male)

Stereotypes came into play in the recruiters' mind maps. Similarly, picturing the 3-day training course that was used to

select him as a future apprentice, a student explained what played in his favor:

“During the last 3 years, they only had girls as apprentices so when I arrived the manager said, ‘‘At last, a boy!’’ Indeed, there are often heavy things to carry so the fact that I was a boy has played a positive role, so yes, physical abilities.’’

(Apprentice, seller, male 18 years old)

Soft skills and “feeling” appeared to constitute two important dimensions of the hidden curriculum. They consisted of assessing the candidate’s potential “fit” with the company and their immediate working environment. Besides these interaction-related skills, other dimensions appear at act that account for additional skills and abilities in the hidden curriculum: anticipation, autonomy, and reflexivity.

Anticipation, autonomy, and reflexivity

Interviews underlined the importance of being able to anticipate, demonstrating autonomy and displaying some reflexivity, i.e., the ability to give a sense to one’s apprenticeship plans and to demonstrate it in order to be recruited.

As previously highlighted by the future apprentices, building up to the recruitment process begins in the second year of the lower (I) secondary cycle, with a compulsory 1-week internship which they organize themselves. This internship is the first opportunity to consider the type of profession and work environment one might choose, but also to develop professional contacts, which could help nurture the students’ social capital. For recruiters, the time-related nature of the recruitment process varies according to the company’s size and organization, but could last almost a year. This lengthy process, as well as the student’s ability to manage it, generated a second discrimination, notably among students having linear trajectories. Indeed, anticipating and building their career plans through internships constituted a tool to convince a potential recruiter.

“Sometimes there are people who ask very, very early. Sometimes even 1 or 2 years in advance. I remember having people who asked me very, very early. Well they often are right. Since I was able to carry out interviews, internships in the long run, and to confirm that they actually were very motivated people. Often with people that come late to me, like June etc., it is a bit like a safety net. They haven’t really thought about it.’’

(Recruiter, Carpentry Company, male)

The ability to anticipate was then perceived by recruiters as a guarantee of the future apprentice’s motivation, coupled with their ability to differentiate themselves in the recruitment process:

“I often conduct workshops in the careers showroom (. . .). First we hold a conference on how to look for an apprenticeship position, then we organize job interview simulations where young people can come and present their application form to us, etc. We also give out our business cards there, like that, as well as receiving some applications. So it’s also a lot of word-of-mouth (. . .). So, when there are young people coming to the end of a contract then yeah, for sure. When there’s a nice feeling with the young people who took time to come in the careers showroom that means they are interested, if they took the time. . . Well, me in general, I am there on Sunday, so the

one who’s coming on Sunday afternoon to have an interview, means they are interested, so yeah, then it can lead to contracts in the end.’’

(Recruiter, Human Resources manager, Insurances Company, female)

Two dimensions linked to this relationship with time appeared to structure the recruitment process and they attested to specific recruiters’ expectations. Thus, when asked about “good criteria” influencing apprentice selection, a recruiter answered: *“Those two criteria, I think are really autonomy and motivation.’’* Displaying this motivation is expected in the recruitment process:

“It goes down even better if it is the young person who calls, because we are saying to ourselves, ‘‘they are motivated, they didn’t send their application for nothing. So, in this case if the young person calls and then asks for the status of their application, they are reiterating their motivation on the phone. In this case, we’re taking this into account.’’

“The first thing we judge is how much motivation they have. And why they apply here. Often, the parents call at some point during the recruitment process, but, we are more attentive if the young person calls. Because we say to ourselves, look they are calling. The perception is better because we then think, well, they are motivated and they did not send their application for nothing. So when the young person calls, we take it into account.’’

(Recruiter, public administration, male)

“Well, receiving an application from a student currently on a ‘transition year,’ it’s not the same if they do it in September or in April. What’s critical is that they have to target what they really want to do. We don’t have time to lose with people who look for an apprenticeship and not a profession.’’ (. . .) “It means that they have to. . . that they can’t just produce a simple file as usual, they must contact us by phone, explain their situation. But just a file, here, is rejected.’’

(Recruiter, Electricity Company, male)

Finally, according to the recruiters, the ability to anticipate and be active was linked to the apprenticeship candidate’s degree of autonomy and motivation. Apart from academic qualities, the ability to obtain an apprenticeship position thus depended on the students’ ability to justify their actions and choices and to demonstrate their reflexivity.

A 21 year-old female, first year commerce apprentice was invited to recall the questions she was asked during the interview. She answered:

“Yes, I remember one question that really affected me, it was, ‘Why you and not someone else?’ As I said before, it is clearly this type of question where one has to find a balance. We cannot put ourselves forward too much; we have to show some confidence in ourselves, but not too much either.’’

(Apprentice, commercial employee, female, 21 years old)

This is echoed in this recruiter’s comments:

“Through the testing, we want to know more about their personality, not what they learned at school but if they are able to translate, what they learned at school into what we are asking them to do. . .” (. . .) “It’s really a question of perception. I try to

understand their motivations. . .

(Recruiter, carpentry company, male)

Far from being specific to the context under study, this exhortation for autonomy, appeared to be part of a standard framework characterizing democratic societies, and can thus be analyzed as a new heteronomy (Ehrenberg, 2010). As underlined by A. Ehrenberg, during the last decades of the 20th century, “The ability to affirm oneself in an appropriated and controlled way becomes a central ingredient of the socialization process at all levels of social hierarchy,” and still, autonomy “depends on its social conditions.” More generally, the apprentice recruitment process illustrated how, “in the displacement from the entitled to the possible, personal assertion and self-affirmation, are at the heart of democratic society” (Ehrenberg, 2010, p. 13). But, what are the consequences, if “we are now trained since our early childhood to become ourselves” (Ehrenberg, *ibid*)? This concept of autonomy has two sides. It is both about “freedom of choice on behalf of self-ownership,” as illustrated by the apprentices’ ability to choose their apprenticeship subject area, and by the “ability to act on one’s own in most everyday life situations,” which we depicted as a key asset in the recruitment process.

Autonomy, vocation, and “practical sense” appeared to be keywords to access apprenticeships. The exhortation for autonomy that was made to the apprenticeship applicants in the recruitment process appeared to be an implicit rule. This rule operated in different ways. For example, in the recruiters’ search for “authenticity”:

“The aim is really to have an authentic person in front of us, which is linked to what they are saying and the appearance they give.”

(Recruiter, shop manager, large-scale distribution, male)

Although these informal requirements helped build the profile of the recruited apprentices, their effects were not unilateral, as the two following interview extracts show:

“On one hand, yes we can help them, we do also have young people who have family situations that aren’t easy so I think we can provide them with something. It is also a criteria. We tell ourselves, “Maybe they will need us.” There have been times when we didn’t recruit someone who had more “chances” and instead we took someone who needs us more and with who we can be more tolerant and more understanding than a private company, for example. So we do try to give those young people opportunities.”

(Recruiter, public administration, female)

“He was a disabled young person. We took him for the apprenticeship. We should never have employed him under normal conditions. He insisted so much and was so prompt to undertake this apprenticeship that he did it. (. . .) So we have to be able to listen to people, their desires and to see their motivation and especially their authenticity. If they are respectful, they can go far. (. . .) So, we have to reach out to others from time to time, even if it is difficult sometimes. We take it on ourselves and we have to be able to go this way, (. . .) to help out.”

(Recruiter, shop manager, large-scale distribution, male)

These comments highlight the fact that the exhortation for autonomy in the recruitment process periodically applied

to recruiters and provided some flexibility in the use of informal norms. For the apprentices, overcoming conventional recruitment criteria giving some sense to the recruiter’s activity by replacing it with their personal relationship to the world (in a specific ethos), appeared to be the required counterpart of autonomy. Finally, and schematically, the apprentice recruitment process could then be seen as the meeting of those two types of autonomy. The three following interview extracts revealed this connection between the recruiters’ and the apprentices’ autonomy:

“I think that, principally, the young have to look for something they really like, and go all-out for it. It takes a lot of energy but they have to show real interest, that’s crucial. That’s what we realize the most, that people come here because they were pushed to do so. . . We can show them the job, but if they don’t have some get up and go in them. . . They have to build their training period, they have to try to. . . They must not just arrive, they have to show a minimum of interest.”

(Recruiter, Electricity Company, man)

“It’s like a young bird flying the nest. It’s exactly the same thing. Yet, our job is to be instructive, to be able to give ourselves time because today, in the economic context we have, we want everything right away, and it’s not always easy because there are two contradictory dimensions. These are the fact that we tell ourselves we will give ourselves time, but we have less and less time, and the second issue is that, financially, we are always restricted by our costs.”

(Recruiter, Retail Company, male)

“I knew they started recruiting on the 1st of March, so on the 1st of March I went to the post office in order to have a stamp with the date on it, so that they see my interest, so that they see my commitment.”

(Apprentice, bookseller, female, 24 years old)

Discussion

In this study, we have examined how students access apprenticeships and how they valued an apprenticeship. In a nutshell, this research leads us to distinguish between three processes that appeared important and cumulative in the recruitment process.

Firstly, we found that conventional dimensions known to affect access such as schooling trajectories, family support, and social resources combined in different trajectory configurations leading to varying degrees of difficulty in accessing an apprenticeship.

Secondly, our research highlighted the additional role played by a hidden curriculum in finding an apprenticeship. Its content was identified and it was revealed how this hidden curriculum lead to promoting a specific type of individual. This hidden curriculum mainly came into play when the candidate was assessed *in situ* through a preliminary internship or an interview, and more generally through all types of interactions involved in the recruitment process. The hidden curriculum comprises several dimensions: such as anticipation, autonomy, and reflexivity. Those selection practices based on the possessing of a specific type of soft-skill appeared to penalize young people with

specific trajectory configurations as characterized by ideal-types 3 and 4 in our analysis. These included students with non-linear schooling trajectories in the lower or medium academic stream who used transition measures, had little family support and/or social capital, as well as students with linear schooling trajectories in the weakest academic streams with no family support. These students faced greater difficulties in dealing with the hidden curriculum as they could not demonstrate the required aptitudes. Indeed, these aptitudes are more likely to come from primary socialization than from secondary socialization backgrounds, particularly when performed within compulsory schooling. This leads us to concur with Lahire (2014, GRS website) in that, “What determines the activation of one disposition in a specific context is the product of the interaction between internal and external power relations: power relations between aptitudes that are more or less built during past socialization (internal) and power relations between elements (such as the situation, objectives, and characteristics that can be associated with different people) of context that more or less weighs on the actor (external).” Therefore, previous socialization influences the recruitment situation, as in this context, the (non) activation of some “aptitudes” influences the recruiter’s choice. Consequently, the hidden curriculum used to identify the “right apprentice” tends to (re)produce inequalities between students depending on their school results as well as their social and cultural skills and their ability to anticipate and act autonomously. This exhortation for autonomy corresponds to the search for a specific type of individual that the recruitment process makes perform as a “subject.” This is defined by Touraine (1995, p. 29) as “. . .the desire to be an individual, to create a personal history, to make sense of all the experiences of individual life. . .” Indeed, “the Subject is neither the individual, nor the self, but the work through which an individual transforms into an actor, meaning

an agent able to transform their situation instead of reproducing it.” (Touraine, 1992, p. 476). In the end, the “right” apprentice appears to be the subject of their recruitment search. Still, the use of a hidden curriculum and the lack of collective preparedness in the recruitment process, leaving the student alone with their own resources, transform this recruitment criteria into a social reproduction tool. By asking a young students to present themselves as the subject of their recruitment – without providing them with collective resources aimed at helping them take a step back and nurturing their reflexivity – leads to promoting the ability to present oneself as a subject, as a social aptitude and not as a universal right as expected in democratic societies.

Thirdly, being able to present oneself as a subject in the recruitment process appears necessary but not always sufficient to easily access apprenticeships. Ultimately, if the process of subjectification is assessed in apprentice recruitment, aptitudes, and social characteristics can influence hiring both ways, depending on how apprentices interact with the recruiter’s own aptitudes and perception of their role as a recruiter, for their company, but also more generally in their society. Only by taking account of these three processes and how they are interlinked can one fully understand institutional barriers to equal opportunities in educational trajectories.

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Perceptions of national wealth and skill influence pay expectations: replicating global hierarchy on a microscale

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In highly multicultural societies, the economic status hierarchy may come to mimic the hierarchy of global wealth, reinforcing social inequality by tying pay scales to national wealth. We investigated how nationality influences *expectations* of payment in the UAE. Participants reported how much they expected people to be paid and how much skill they were perceived to have by nationality. They also reported their perceptions of the national wealth of different countries. Participants generally expected Westerners to be paid more than Arabs, who would be paid more than Sub-Saharan Africans and Asians. Expectations about payment in private sector employment were driven by both actual and stereotyped differences in national wealth and skill, with non-Gulf Cooperation Council Arabs most likely to see national wealth as a factor explaining the economic hierarchy. These results suggest that people expect payment to be tied to national wealth, reflecting the global hierarchy on a microscale.

Keywords: status, inequality, system justification, national wealth, stereotypes

Introduction

Disparities in national wealth are striking. Qatar, for example, produces a gross domestic product (GDP) per capita of \$102,100 while the Democratic Republic of the Congo has a GDP per capita of only \$400 (The World Factbook, 2015). Such disparities have been tied to explanations ranging from differences in national intelligence (i.e., blaming the poor; Lynn and Vanhanen, 2006) to a history of colonization and neoliberal economic policies (i.e., blaming the rich; Hickel, 2013). The current work looks at how the simple *existence* of national wealth disparities, regardless of their cause, may help maintain global inequality in a single context.

Research on system justification theory (see Jost and Banaji, 1994) argues that justifying and explaining status differences helps maintain stability within a system by promoting norms favoring dominant groups. This paper investigates how existing global inequality may be used to understand and explain status differences in a highly diverse society, focusing on how both perceptions of and actual differences in national wealth may be used to understand a nationality-based economic status hierarchy at a local level. We also investigate how perceived and actual merit, which has more commonly been examined as an ideological explanation for the position of disadvantaged group members (see Jost and Hunyady, 2005), influence individuals' expectations of salary differences.

System Justification Theory argues that people are motivated to perceive the norms, rules, and structures within their societies as legitimate, even when those structures disadvantage them as

individuals. In fact, Jost et al. (2003) argue that the motive to justify unequal status in society should be particularly strong for members of disadvantaged groups, who experience the most ideological dissonance in trying to understand their low status in society.

A number of other factors influence the system justification motive as well. Kay and Friesen (2011) argue that people are motivated to defend the social order when they are dependent on the system, when they perceive a lack of personal control, when the system is under threat, or when the system is inescapable (see also Laurin et al., 2010). Likewise, system longevity (Blanchard and Eidelman, 2013), a sense of powerlessness (van der Toorn et al., 2015), or individual differences in need for order, structure, and closure, openness to experience, and perceptions of the world as a dangerous place (Jost and Hunyady, 2005) increase defense of the status quo.

Defense of the status quo takes several shapes, one of which is the creation and maintenance of stereotypes that explain the relative status of groups within society. Jost et al. (2005), for example, showed across three national samples that high-status groups tended to be stereotyped as agentic, whereas low status groups were perceived as communal. These stereotypes were observed among both high- and low-status group members and could be used to legitimize an existing social order by supporting the idea that groups with skill achieve (and therefore deserve) higher status in society.

A growing body of research has shown evidence of system justification in regions outside of Western, capitalistic societies, where the system is expected to reward such effort and ability. For example, Henry and Saul (2006) showed that low-status school children in Bolivia believed that the government was effectively meeting people's needs even more than their high status counterparts, providing evidence of system justification in a developing country. van der Toorn et al. (2010) found evidence of system justification in the U.S. and Hungary, but showed that whereas endorsement of system-justifying ideologies was associated with more favorable views of work scenarios that emphasized equity (merit-based payment) in the U.S., endorsement of system-justifying ideologies in Hungary was associated with more favorable views of scenarios that emphasized equality and the favoring of a coworker over the self (a communist value). In a review of system justification in capitalist and post-Communist societies, Cichocka and Jost (2014) argued that although there is a weaker degree of system justification in post-Communist societies overall, system justification has similar antecedents, manifestations, and consequences across all sampled societies. Taken together, these studies suggest that system justification is a global phenomenon, although the extent to which it is endorsed and the specific status-oriented scenarios that are favored may vary with local systems and norms.

The current work investigates how status differences are understood in the UAE, a modern emerging economy comprising a globally diverse workforce. The system in the UAE is stable with laws that reduce the possibility and probability of collective mobility (see Issa, 2006). According to previous research, this lack of personal control is likely to motivate strong support for the

status quo, or at least demand explanations for social hierarchy (i.e., Laurin et al., 2010; Kay and Friesen, 2011), especially from individuals who occupy low status positions (Jost et al., 2003).

The economic system in the UAE is highly stratified. Salary surveys show that, among individuals in the private sector working at the same job, Western expatriates tend to make more than Arab expatriates, who tend to make more than South Asian expatriates (Al-Awad and Elhiraika, 2003; Nagraj, 2013; Pant, 2013), although the gap between Western and Arab expatriates has recently decreased (Anderson, 2014). Such salary differences are part of the national dialog (Salama, 2004; Al Subaihi, 2012), and are well known to residents and research participants, many of whom seem to expect merit to play a role alongside nationality in salary decisions (see Maitner, 2015).

There are several possible ways that individuals may understand the nationality-based hierarchy. First, because there are national differences in education, it may be that some nationalities are actually better qualified and prepared for work than others, and are consequently paid more for their superior skills. An alternative possibility is that, like in Western countries, higher status groups may be *perceived* as more qualified than lower status groups, independent of any true differences in competence. If this is the case, then *stereotypes* of national level qualifications may influence how much individuals of different nationalities earn.

Alternatively, the economic status hierarchy may be unrelated to national differences in either perceived or actual qualifications, and may instead simply reflect the global economic hierarchy, either in actuality, or in how it is perceived. Arab culture tends to be hierarchical such that people who have more *wasta*, or social influence based on individual connections, are expected to achieve better outcomes than those with less social influence (see Cunningham and Sarayrah, 1994). In other words, in the local system, individuals expect ascribed status to strongly influence people's outcomes. Following van der Toorn et al. (2010), we may therefore expect such local values to play a role in the way individuals justify or explain the current system. If this is the case, it may be that ascribed status associated with one's nationality will be perceived as an especially potent explanation for socioeconomic status within the UAE. Additionally, given that 89% of residents (in 2010) are foreigners (United Arab Emirates National Bureau of Statistics, 2011), ascribed status associated with the economic power of one's nationality may serve as a simple and direct explanation for salary discrepancies. In this case, actual or perceived differences in national wealth should play a role in how much individuals expect people from different nationalities to earn.

According to *Gulf Business*, "Local companies are still willing to pay a premium for Western expatriates from outside the region, due to the perception that they possess a particular skill set not locally available and that they have to be paid comparable rates for the same position in their home country. . . ." (Nagraj, 2013). In other words, business experts assert that stereotypes of *both* skill differences and national economies play a role in explaining salary hierarchies. Such stereotypes may help institutionalize and perpetuate a system of global inequality on a microscale.

Wakslak et al. (2011) have argued that once a system justification motive has been activated via system threat, individuals may aim to justify the system at different levels, from microscale systems such as families and friendship cliques to larger-scale systems such as national economies. Their results suggest that individuals may defend multiple social systems even when only one system has been threatened, an effect they call spreading rationalization. Here we investigate whether the hierarchy of a superordinate system may be used to explain the hierarchy in a subordinate system that individuals are motivated to defend. In this way, both systems may be legitimized and inequality perpetuated.

This study investigates the contribution of actual nation characteristics (i.e., GDP per capita and mean education levels – reflecting the actual global hierarchy) and national stereotypes (i.e., perceived wealth and skill – reflecting the stereotyped global hierarchy) on expected salaries for employees with different nationalities. Therefore it is also pitting markers of ascribed status, either real or perceived (GDP per capita and perceived wealth), against markers of earned status (mean education levels and perceived skill) to investigate how the two kinds of explanations are used to understand socioeconomic hierarchy in a non-Western economy. Using a diverse sample of UAE-based students, we first examine whether stereotypes about the agency (merit) and success (wealth) of different groups reflect the relative status they hold in UAE society, expecting nationalities perceived as higher on the economic status hierarchy (nationalities expected to be paid higher salaries) to be perceived as more agentic and successful (see Jost et al., 2005). Second we investigate the role that structural variables and stereotypes play in explaining the perceived economic hierarchy, expecting stereotypes about national merit and wealth to be used as explanations for perceived nationality-based payment differences. Third, we investigate whether the extent to which individuals use wealth or skill-based explanations for economic differences varies by participant nationality, expecting participants lower in the economic hierarchy to show stronger motives to explain status differences (see Jost et al., 2003). Finally, we examine whether the extent to which individuals use wealth or skill-based explanations for economic differences varies by target nationality; here we explore whether people use different explanations for salaries of groups who hold different positions in society or whether the same explanations are used across all groups, regardless of their relative status.

Materials and Methods

Participants

One hundred ninety-five students (M age = 19.98, SD = 1.60; 78 male, 116 female, 1 unreported; 1 American, 2 Bangladeshi, 2 British, 2 Canadian, 1 Chinese, 19 Egyptian, 39 Emirati, 1 Filipino, 1 German, 1 Hungarian, 22 Indian, 3 Iranian, 3 Iraqi, 13 Jordanian, 1 Kuwaiti, 5 Lebanese, 1 Mozambican, 5 Nigerian, 16 Pakistani, 11 Palestinian, 7 Saudi, 1 Somali, 1 Sri Lankan, 5 Sudanese, 10 Syrian, 1 Tajik, 1 Tanzanian, 1 Turkish, 1 Ukrainian, 8 multiple nationalities, 10 unreported)

from the American University of Sharjah completed the survey for partial course credit. Although the restricted sample is not representative of the country as a whole, university students represent a group who will soon enter the workforce with strong educational credentials. This sample therefore represents a nationally diverse, skilled group for whom the issue of salary is personally relevant. Moreover, because they have not yet entered the workforce, participants' perceptions are likely to be reflective of local expectations rather than personal experience, allowing us to investigate the perceptions they report as stereotypes.

Procedure

The following procedure was approved by the Institutional Review Board at the American University of Sharjah.

Participants were told that the study investigated the impact of nationality on pay and ability. All participants began by reading and signing informed consent documentation. They then received all instructions and completed the study on computers running MediaLab software (Jarvis, 2012). They were asked to provide their first responses to the questions that followed, reporting expected salary and perceptions of qualifications and national wealth for 29 different nationalities which are visibly present in the UAE.

These 29 independent nationalities were categorized based on region for analysis purposes. Categories were created in an attempt to identify regional groups that play meaningfully different roles in UAE society and that reside in different positions in the economic hierarchy. Because salary surveys frequently report salary for Western, South Asian, and Arab expatriates, we began with these three groups. However, because member countries of the Gulf Cooperation Council (GCC), comprising Bahrain, Kuwait, Oman, Saudi Arabia, Qatar, and the UAE, have stronger national economies associated with higher levels of ascribed status, we differentiated GCC Arab and non-GCC Arab target groups. Finally, in an attempt to explore perceptions of additional regions, we included Sub-Saharan African and Southeast Asian countries. Target regions included:

- (1) Western: American, Australian, British, and French
- (2) South Asian: Bangladeshi, Indian, Pakistani, and Sri Lankan
- (3) Non-GCC Arab: Egyptian, Moroccan, Sudanese, Tunisian, Jordanian, Lebanese, Palestinian, Syrian, Iraqi, and Yemeni
- (4) GCC Arab: Emirati, Kuwaiti, Omani, Qatari, and Saudi
- (5) Sub-Saharan African: Ethiopian, Kenyan, Nigerian, and Somali
- (6) Southeast Asian: Filipino, Indonesian, and Malaysian

We attempted to use the same breakdown in creating categories of participants' nationalities, but only had sufficient representation for the South Asian, non-GCC Arab, and GCC Arab regions. All other nationalities were collapsed into a single "Other" region (see **Table 1**).

Expected Salary

Participants began by reporting expected starting salaries by nationality. They were asked to "please imagine that the person

TABLE 1 | Descriptive statistics for study variables.

Level of aggregation	Variable	Mean (SD) or N (%)
Rating	Expected Pay	2.79 (1.24)
	Perceptions of national wealth	2.68 (1.28)
	Perceptions of national skill	2.90 (1.15)
Person	Region for participant's nationality	
	South Asian	43 (22.1%)
	Non-GCC Arab	73 (37.4%)
	GCC Arab	48 (24.6%)
	Other	31 (15.9%)
Nation	Actual GDP per capita	\$14,589 (\$15,898)
	Actual amount of schooling	12.48 (3.49)
	Region for rated nation	
	Western	4 (14.3%)
	South Asian	4 (14.3%)
	Non-GCC Arab	9 (32.1%)
	GCC Arab	4 (14.3%)
	Sub-Saharan African	4 (14.3%)
	Southeast Asian	3 (10.7%)

described was qualified for a job that had a starting salary range. We will ask you to estimate, given the possible range, how much the person would be likely to be paid." Participants then responded to the prompt "In the private sector, if a(n) [nationality] was hired for a job for which (s)he was qualified, (s)he would likely be offered a starting salary which was at the _____ of the salary range" using a scale anchored at 1 = *lowest end* and 5 = *highest end*. Participants evaluated the 29 nationalities in a random order.

Expected Qualifications

After rating salary expectations for all nationalities, participants were told "for the next several questions, please think about how most people perceive the skill level (a combination of education, ability, and work ethic) of different national groups. We will ask you to estimate, given the possible range, how much skill a person with a particular nationality is expected to have." They then evaluated the 29 nationalities in a random order, on the item: "A(n) [nationality] is expected to have skills (a combination of education, ability, and work ethic) at the _____ of a scale compared to other nationalities," using a scale anchored at 1 = *lowest end* and 5 = *highest end*.

Expected National Wealth

Finally, participants were asked to rate the national wealth of the 29 countries compared to other countries. Here they responded to the item "The national wealth of [country] is at the _____ compared to other countries," again using a scale anchored at 1 = *lowest end* and 5 = *highest end*. Participants then reported personal demographic information before being thanked and debriefed.

National Statistics

After data were collected from participants, we retrieved the most recent available data on GDP per capita (the total value

of goods and services produced by a nation valued at prices prevailing in the U.S., then divided by the total population – taken as an indicator of national wealth) and school life expectancy (average number of years of schooling – taken as an indicator of national qualifications) from the World Factbook, a data repository maintained by the U.S. Central Intelligence Agency that provides a diverse collection of information on 267 world entities.

Results

Outliers

Before performing our main analyses, we graphically examined the distributions of our main variables to identify potential outliers. In our investigation of the nations being rated, we noted that that GDP per capita for Qatar (\$102,100) was almost twice as large as the second highest GDP per capita (\$52,800) and 3.75 SD greater than the mean GDP per capita (\$17,606). We therefore decided to remove the ratings of Qatar from our analyses so that they would not bias results. We did not have any participants from Qatar, so we did not need to investigate the possibility of Qatari participants being outliers on any ratings.

Descriptive Statistics

Descriptive statistics for the variables included in our analyses appear in **Table 1**.

The data for the present study was collected at three different levels. The 195 participants evaluated the pay, wealth and skill of the 28 target nationalities (excluding Qatari) for a total of 5460 ratings. Each of the 195 participants also reported their own nationality, which was then used to determine participant region. Finally, information about the GDP per capita and average amount of schooling were retrieved for the 28 target nationalities. The descriptive statistics for each of our variables was calculated based on the level at which the data were collected. Therefore, the statistics for rated pay, wealth, and skill were calculated based on the 5460 ratings, the counts for participant region were calculated based on the 195 reports from participants, and the statistics for actual GDP and amount of schooling were calculated based on the 28 reports from the rated nations.

Given that our variables were collected at different levels of aggregation, we decided to examine the bivariate relations among variables at multiple levels of aggregation. **Table 2** presents the correlations among the perceived and actual nation characteristics.

Since national stereotypes were assessed at the rating level and the actual nation characteristics were assessed at the nation level, we present the correlations at both of these levels of aggregation. All of the correlations are positive, strong, and significant. The correlations at the nation level are expectedly higher because the nation-level aggregates of perceived characteristics average over person-level variability (which is included in the individual ratings). As can be seen, perceptions of wealth and actual wealth were highly related, as were perceptions of skill and amount of schooling, indicating that participants' stereotypes were largely, but not wholly, accurate.

TABLE 2 | Correlations among rated and actual nation characteristics by level of aggregation.

	1	2	3	4	5
Rating level					
1. Perceptions of pay	–				
2. Perceptions of wealth	0.67	–			
3. Perceptions of skill	0.47	0.46	–		
4. GDP per capita	0.64	0.71	0.39	–	
5. Average amount of schooling	0.52	0.58	0.35	0.78	–
Nation level					
1. Perceptions of pay	–				
2. Perceptions of wealth	0.95	–			
3. Perceptions of skill	0.83	0.77	–		
4. GDP per capita	0.90	0.93	0.78	–	
5. Average amount of schooling	0.74	0.78	0.69	0.78	–

All correlations are significant ($p < 0.005$).

Participant nationality was assessed at the person level, so we used a data set aggregated to the person level to test the bivariate relations of the participant's region with expected pay, perceived wealth, and perceived skill. A one-way between-subjects ANOVA indicated that participant region was significantly related to perceived wealth [$F(3,191) = 3.65, p = 0.01$], such that those from GCC nations provided significantly lower ratings of wealth ($M = 2.54, SD = 0.45$) than those from other nations ($M = 2.73, pooled SD = 0.37$). One-way between-subjects ANOVAs indicated that participant region was not significantly related to either expected pay [$F(3,191) = 1.73, p = 0.16$] or perceived skill [$F(3,190) = 0.50, p = 0.68$]. This suggests that at an overall level, there is remarkable consistency across the diverse participant pool in ratings of national wealth, pay, and skill, with the exception of GCC Arabs rating national wealth lower across national groups. Overall, different groups living in the UAE share stereotypes about different nationalities.

Stereotypes and the National Hierarchy

To test our first research question asking whether stereotypes about the merit and wealth of different groups reflect the relative status they hold, we examined the bivariate relations of region being rated with perceived nation characteristics. To secondarily assess how closely those stereotypes reflect global reality, we also assessed the bivariate relations of region being rated with actual nation characteristics. Region of the nation being rated was assessed at the nation level, so we used a data set aggregated to the nation level to investigate these relations. The means of and homogenous subsets for these variables by region are provided in **Table 3**.

A collection of one-sample between-subjects ANOVAs indicate that the rated region had significant effects on all of these variables (all p 's < 0.005). Typically, Western nations had the highest ratings, followed by GCC Arab nations, followed by the other nations. The effects were strongest for expected pay and GDP per capita (R^2 's > 0.90) and weakest for the average amount of schooling ($R^2 = 0.57$).

As can be seen in **Table 3**, participants expected individuals from Western nations to be paid more than individuals from

TABLE 3 | Means and homogenous subsets of perceived and actual nation characteristic by rated region.

Rated region	Expected pay	Perceived wealth	Perceived skill	GDP per capita	Average schooling
Western	4.23 _D	4.22 _C	4.13 _D	\$42,200 _C	17.25 _C
South Asian	1.91 _A	1.93 _{AB}	2.59 _{AB}	\$3,925 _A	11.00 _{AB}
Non-GCC Arab	2.69 _B	2.30 _B	2.87 _{BC}	\$6,333 _A	11.25 _A
GCC Arab	3.82 _C	3.98 _C	2.90 _C	\$33,275 _B	15.00 _{BC}
Sub-Saharan African	1.96 _A	1.76 _A	2.30 _A	\$1,625 _A	9.00 _A
Southeast Asian	2.06 _A	2.29 _{AB}	2.63 _{AB}	\$9,133 _A	12.33 _{AB}

Means within a column that share a subscript are not significantly different from each other ($LSD p > 0.05$).

GCC Arab nations, followed by non-GCC Arab nationals. Participants expected individuals from South Asian, Sub-Saharan African, and Southeast Asian nations to earn the least for the same job. These findings denote the perceived economic hierarchy in the UAE, and show that participants have a fair idea of how much individuals with different nationalities are actually paid in a relative sense (see Nagraj, 2013; Pant, 2013).

Participants also perceived nationals from Western states to be more skilled than nationals from GCC Arab states, followed by nationals from non-GCC Arab states, then South and Southeast Asian states, and finally Sub-Saharan African states. In other words, stereotypes about the agency of different segments of society roughly mirror the expected payment those members of society are expected to receive. This finding reflects that of previous research (Jost et al., 2005) with individuals from nations expected to be higher in the economic hierarchy also expected to possess more skill.

Stereotypes about national wealth also roughly mirror the expected payment hierarchy. The more payment individuals from a region are expected to receive, the more wealth that region is expected to have. Although actual national wealth (GDP per capita) also mirrors somewhat the hierarchy seen in expectations of payment by region, it fails to differentiate between non-GCC Arab, South and South East Asian, and Sub-Saharan African countries. This suggests that the perceived status hierarchy in the UAE (the hierarchy reflecting expected pay) is more nuanced and differentiated than global economic reality.

Bivariate correlations reported in **Table 2** provide further support for the idea that stereotypes about the merit and wealth of different groups reflect the relative status they hold, showing that perceptions of payment are highly associated with perceptions of and actual differences in national wealth and skill.

Predicting Expected Pay from Stereotypes and National Characteristics

To examine our second research question investigating how both stereotypes of and actual estimates of national wealth and skill relate to expected pay, we ran a linear mixed model in SPSS (version 21) predicting expected pay from stereotypes of national

wealth, stereotypes of national skill, actual national GDP per capita, and actual national years of schooling on data at the rating level while adjusting for participant as a cluster variable. The continuous predictor variables were all group-mean centered (although this is the same as grand mean centering for actual GDP per capita and average years of schooling since these values did not vary between participants). After centering, the predictors were all divided by their standard deviation so that coefficients from the model represent expected change in the outcome with a 1 standard deviation change in the corresponding predictor. The model allowed for random intercepts and random slopes for the ratings of national wealth and national skill because the meaning of these two variables could vary between participants. All of these random effects were significant (all p 's < 0.05), indicating that the mean ratings of expected pay and the relations of ratings of wealth and skill with the rating of expected pay varied significantly across participants.

We also included the region of the nation being rated and the region of the participant's nationality in the model as categorical blocking factors. In analyses, the rated region was represented by a set of dummy codes with "Southeast Asian" being the reference group. The participant's region was represented by a set of dummy codes with "Other" as the reference group.

Omnibus tests indicated that the overall test for rated region was significant [$F(5,4055) = 120.54, p < 0.001$], but the overall test for participant's region was not significant [$F(5,170) = 1.20, p = 0.31$]. Means and homogeneous subsets for rated region are presented in **Table 4**.

These means differ somewhat from those presented in **Table 3** because they control for the effects of perceived and actual nation characteristics, as well as the effect of participant region. As expected, and reflecting the bivariate analyses reported above, the highest pay was expected for individuals from Western nations, whereas the lowest pay was expected for individuals from South Asian and Southeast Asian nations.

The coefficients for the fixed effects in this model are presented in **Table 5**.

These results indicate that expected pay was higher when the participant perceived the nation as being wealthier or having individuals with more skill, and when the nation actually had a higher GDP per capita or higher average amount of schooling. In other words, in line with assessments of business professionals, participants seem to expect salary to follow from both national

TABLE 4 | Means and homogenous subsets for the main effect of rated region.

Rated region	Mean expected pay
Western	3.360 _E
South Asian	2.295 _A
Non-GCC Arab	2.864 _C
GCC Arab	3.059 _D
Sub-Saharan African	2.481 _B
Southeast Asian	2.289 _A

Means not sharing the same subscripts are significantly different from each other ($p < 0.05$).

TABLE 5 | Coefficients from model testing main effects on expected pay.

Predictor	Estimate (SE)	p -value
Intercept	2.249 (0.094)	<0.001
Perceived national wealth	0.308 (0.026)	<0.001
Perceived national skill	0.189 (0.020)	<0.001
GDP per capita	0.220 (0.049)	<0.001
Average amount of schooling	0.040 (0.015)	0.008
Rated region		
Western dummy	1.071 (0.077)	<0.001
South Asian dummy	0.006 (0.037)	0.88
Non-GCC Arab dummy	0.575 (0.032)	<0.001
Sub-Saharan African dummy	0.192 (0.041)	<0.001
GCC Arab dummy	0.771 (0.065)	<0.001
Participant's region		
South Asian dummy	0.218 (0.117)	0.06
Non-GCC Arab dummy	0.055 (0.106)	0.61
GCC Arab dummy	0.031 (0.114)	0.79

Continuous predictors are centered and on a standardized metric, so the coefficients represent the expected change in expected pay with a 1 SD increase in the predictor.

wealth and qualifications, with stereotypes and actual differences in those variables playing independent roles in influencing participant expectations.

Moderating Effects of Participant's Region

To test our third research question, we investigated whether the geographic region a participant was from influenced observed relations between national stereotypes and expected pay. We expected participants from regions lower on the economic status hierarchy (non-GCC Arabs and South Asians) to show a stronger need to explain the hierarchy, and therefore to show stronger relations between stereotypes and expected pay. To test this hypothesis, we ran a linear mixed model that predicted expected pay from the main effects discussed above plus the interactions of the participant's region with perceived wealth and perceived skill. We decided not to examine the interactions of participant's region with the actual nation characteristics (GDP per capita and average amount of schooling) because these interactions are strongly affected by which nations were included in the study and how those nations were divided into regions, which were researcher choices. The model adjusted for participant as a cluster variable. Centering was used in the same way as in the prior model. The model allowed for random intercepts and random slopes for the ratings of national wealth and national skill. All of these random effects were significant (all p 's < 0.05). Interaction terms were tested by including a set of product terms, multiplying each of the region dummy codes by the corresponding predictor variable.

The coefficients for the fixed effects in this model are presented in **Table 6**.

The omnibus test for the interaction between the participant's region and rated wealth was significant [$F(3,201) = 7.80, p < 0.001$], but the omnibus test for the interaction between the participant's region and rated skill was not [$F(3,194) = 0.30,$

TABLE 6 | Interaction coefficients from model testing the moderating effects of the participant's region.

Predictor	Estimate (SE)	p-value
Participant's region × perceived wealth		
South Asian dummy × perceived wealth	-0.036 (0.076)	0.64
Non-GCC Arab dummy × perceived wealth	0.129 (0.069)	0.06
GCC Arab dummy × perceived wealth	-0.150 (0.074)	0.04
Participant's region × perceived skill		
South Asian dummy × perceived skill	0.011 (0.066)	0.87
Non-GCC Arab dummy × perceived skill	0.045 (0.060)	0.45
GCC Arab dummy × perceived skill	0.044 (0.065)	0.50

$p = 0.85$]. The slopes and homogeneous subsets for rated wealth and rated skill by participant region are presented in **Table 7**.

As can be seen, the ratings of wealth are least predictive for those from GCC Arab nations and most predictive for those from non-GCC Arab nations. In other words, GCC Arabs expect national wealth to make a smaller difference in how much individuals are paid, whereas non-GCC Arabs expect national wealth to make a larger difference in how much individuals are paid.

These results suggest that non-GCC Arabs, who are relatively disadvantaged in the local hierarchy, expect national wealth to play a more important role in determining how much individuals are paid than other participants. This may reflect a stronger motive to justify or explain the hierarchy in relatively disadvantaged participants. Importantly, the method they employed seems to reflect local values of hierarchy reflecting ascribed status (i.e., payment follows from national wealth), in contrast to Western values of hierarchy reflecting earned status (i.e., payment follows from national skill).

Indeed, neither non-GCC Arabs nor South Asians were more likely than other participants (GCC Arabs and 'other') to use stereotypes about skills to understand the payment hierarchy, suggesting that merit, while an important contributor to participants' payment expectations overall, may not help reduce dissonance as strongly as considerations of wealth (i.e., ascribed status) in UAE-based, relatively disadvantaged participants.

Moderating Effects of Region Being Rated

To test our fourth research question, we investigated whether the geographic region of the nation being rated influenced the relations of perceived wealth and perceived skill with expected

TABLE 7 | Slopes and homogenous subsets for perceived wealth and perceived skill by participant's region.

Participant's region	Expected slope for perceived wealth	Expected slope for perceived skill
South Asian	0.269 _{AB}	0.171 _A
Non-GCC Arab	0.434 _C	0.205 _A
GCC Arab	0.155 _A	0.204 _A
Other	0.305 _{BC}	0.160 _A

Slopes within a column that share a subscript are not significantly different from each other ($LSD p > 0.05$).

pay. To examine these interactions, we ran a linear mixed model that predicted expected pay from the main effects discussed above plus the interactions of the region being rated with perceived wealth and perceived skill. The model adjusted for participant as a cluster variable. Centering was used in the same way as in the previous models. The model allowed for random intercepts and random slopes for the ratings of national wealth and national skill. All of these random effects were significant (all p 's < 0.05). Interaction terms were tested by including a set of product terms, multiplying each of the region dummy codes by the corresponding predictor variable. The interaction terms were all tested simultaneously.

The coefficients for the fixed effects in this model are presented in **Table 8**.

The omnibus test for the interaction between region rated and rated wealth [$F(5,4543) = 2.51, p = 0.03$] and the omnibus test for the interaction between region rated and rated skill [$F(5,4577) = 3.38, p = 0.005$] were significant. The slopes and homogeneous subsets for rated wealth and rated skill by participant region are presented in **Table 9**.

From this, we can see that perceived wealth has the largest impact on expected pay when the rated nation is from the GCC region, and that this relation is significantly stronger than that found for any of the other regions except that for Sub-Saharan African nations. In other words, participants expected GCC

TABLE 8 | Interaction coefficients from model testing the moderating effects of the rated region.

Predictor	Estimate (SE)	p-value
Rated region × perceived wealth		
Western dummy × perceived wealth	0.017 (0.062)	0.78
South Asian dummy × perceived wealth	-0.007 (0.060)	0.91
Non-GCC Arab dummy × perceived wealth	0.031 (0.053)	0.56
Sub-Saharan African dummy × perceived wealth	0.068 (0.069)	0.32
GCC Arab dummy × perceived wealth	0.154 (0.057)	0.006
Rated region × perceived skill		
Western dummy × perceived skill	-0.001 (0.051)	0.98
South Asian dummy × perceived skill	-0.033 (0.048)	0.50
Non-GCC Arab dummy × perceived skill	0.017 (0.045)	0.70
Sub-Saharan African dummy × perceived skill	0.016 (0.056)	0.78
GCC Arab dummy × perceived skill	-0.159 (0.054)	0.003

TABLE 9 | Slopes and homogenous subsets for perceived wealth and perceived skill by rated region.

Rated region	Expected slope for perceived wealth	Expected slope for perceived skill
Western	0.276 _A	0.214 _B
South Asian	0.252 _A	0.183 _B
Non-GCC Arab	0.290 _A	0.233 _B
GCC Arab	0.414 _B	0.056 _A
Sub-Saharan African	0.326 _{AB}	0.231 _B
Southeast Asian	0.259 _A	0.216 _B

Slopes within a column that share a subscript are not significantly different from each other ($LSD p > 0.05$).

Arabs' salaries to be influenced by their countries' wealth more than they expected other individuals' salaries to be influenced by the wealth of their nation of origin. We can also see that rated skill is not perceived as important when assigning pay to individuals from GCC Arab nations, but is positively related to the rated pay for other regions. In other words, participants did not expect GCC Arabs' salaries to be influenced by their countries' expected skill, although this was an important factor for individuals from other nations.

In sum, it seems that the predicted pay for individuals from GCC Arab nations is more strongly influenced by perceptions of national wealth and less strongly influenced by perceptions of national skill relative to other regions.

Discussion

Results indicated that participants representing different nationalities share a perception of a local economic hierarchy, with Westerners expected to earn more than Arabs, who are expected to earn more than Sub-Saharan Africans and Asians. Moreover, that hierarchy is reflected in stereotypes about national skill and wealth, with nationalities that are expected to be more economically powerful in the local context perceived as more skillful and wealthy. Results further indicated that these stereotypes support differences in expected payment, as both stereotypes about and real differences in national wealth and skill were predictive of salaries for people of different nationalities. A stronger relationship between perceived wealth and payment was found for non-GCC Arabs, who occupy a relatively disadvantaged position in the local hierarchy, though South Asians, those lowest in the local hierarchy, did not seem to rely on either stereotypes about skill or wealth more than other groups to understand payment differences in society. Finally, the results indicated that participants considered national wealth to be a more important contributor and national skill a less important contributor to salaries for GCC Arabs relative to other regional groups.

Our findings suggest that, national stereotypes, including perceptions of wealth and skill, support the status hierarchy, with Western countries perceived as more skilled and wealthy than other regions. These stereotypes appear to have a basis in international reality, with Western nations typically having higher GDPs and amounts of schooling than other regional groups. However, actual GDP and schooling fail to fully explain differences in expected payment, and therefore it is likely that stereotypic perceptions help create and explain a more nuanced local hierarchy, with regions expected to fall lower in the hierarchy *perceived* as less skilled and wealthy than other regions. Like Jost et al. (2005), then, we show the importance of stereotypes in explaining status differences in society. However, we show that in this context, where local norms tie hierarchy to preexisting indicators of influence, explanations tied to ascribed status may be embraced at least as strongly as explanations tied to earned status.

Both actual nation characteristics, including GDP and school life expectancy, and perceptions of national characteristics,

including national wealth and skill, independently predicted how much participants expected individuals to be paid. This suggests that participants may be using explanations based in global economic differences to understand the local hierarchy, using the global hierarchy to explain the local one. In this way, individuals may show a different form of spreading rationalization, using knowledge about the macrosystem to explain (and perhaps defend) the microsystem. However, it seems that the local hierarchy is understood as reflective of both privilege and merit, with participants expecting both ascribed status (associated with a nation's wealth) and earned status (associated with a nation's skill) to influence salary.

We found that non-GCC Arabs expected national wealth to play a stronger role in determining an individual's salary than individuals from GCC Arab states or South Asia. Similar to Jost et al. (2003), it appears that individuals lower in the socio-economic hierarchy are more likely to use indicators, in this case national wealth, to understand or predict economic outcomes, reflecting a stronger ideological need to explain the economic hierarchy. Unexpectedly, South Asians, the most disadvantaged group represented in our sample, did not show a similar propensity, and in fact, did not significantly differ from GCC Arabs, the most privileged group within our sample. It may be that individuals holding a local ethnicity have a stronger motivation to explain their position than individuals who do not share as many characteristics with the local population. However, this intriguing difference demands further investigation.

Although perceptions of national wealth predicted salary for individuals from all target regions, it was more predictive of expected salary for individuals from GCC Arab states. This finding may simply reflect knowledge of reality, as UAE nationals earn as much as 44% above an industry standard because of their nationality (Hay Group). It may also reflect the importance of ascribed status in determining individuals' outcomes, especially in the Arab world. Specifically, the ascribed status associated with national wealth may be expected to strongly influence outcomes for GCC Arab individuals who are nationally economically advantaged. Because non-GCC Arab countries do not typically have high levels of national wealth, they may not be able to rely on such ascribed status to bolster their position.

Consistent with that finding, we also found that perceptions of national skill influenced expected salaries for individuals from all regions except GCC Arabs. Taken together, this suggests that participants expect GCC Arabs to be paid based on national wealth, with qualification and skill playing little or no role in determining salary for individuals from this region. These results add a caveat to the existing literature by highlighting the fact that individuals may not use the same explanations for the status position of all members of society, and instead may rely on different explanations for the position of different groups, following from either realistic or stereotypic perceptions.

In future work, we would like to investigate more directly whether and to what extent explanations based in national wealth and skill are perceived as justified and legitimate explanations for the existing social hierarchy, focusing on the extent to which

global wealth disparities may be used to not only explain but legitimize status differences both within and between societies.

We may also investigate whether individuals from lower status nationalities are more satisfied with their position in UAE society when they make comparisons to co-nationals in their country of origin. Research shows that individuals tend to compare their levels of payment to those of ingroup rather than outgroup members and feel satisfied when their payment compares favorably to that of ingroup members, regardless of how much outgroup members are paid (see Bylsma and Major, 1994). If individuals perceive better opportunities in the UAE than at home, they may report satisfaction regardless of their relative position in the UAE status hierarchy. This could help explain why South Asians failed to show a particularly strong reliance on wealth or skill to understand the economic status hierarchy. Non-GCC Arabs, sharing multiple ingroup memberships with GCC-Arabs, may have a stronger propensity to make social comparisons to that group (rather than ingroup members in their home country), and may perceive unfavorable comparisons as a result.

We may also find that non-GCC Arab and South Asian participants, in particular, are more satisfied if their salary compares favorably to that of co-nationals in the UAE, regardless of payment given to other nationals. Such ingroup social comparisons also influence entitlements (Bylsma and Major, 1994), and we may further investigate whether non-GCC Arab or South Asian participants show evidence of depressed entitlement, attributing fewer resources to themselves, especially when average salaries by nationality are salient (see also Jost, 1997).

Thus far, however, our work shows that actual hierarchy and perceptions of that hierarchy are used as anchors to help make

predictions about how individuals will be treated by institutions. The overall expectation is that wealth begets wealth: dominant groups are favored, and disadvantage is maintained. These findings replicate previous work in a new global context showing that stereotypes may help explain an existing social hierarchy, and that this may especially be the true for disadvantaged group members (Jost et al., 2003). This work also suggests a new way that local systems may be justified – by pointing to the global hierarchy. In showing a connection between local and global systems, we also demonstrate a new form of spreading rationalization, using the hierarchy from one system to explain (and perhaps defend) another.

Conclusion

Although some consultants suggest that the current nationality-based economic hierarchy may disappear within the next decade (Anderson, 2014), perceptions of the current hierarchy in the UAE are strong and shared. Residents seem to understand this hierarchy as reflective of national differences in wealth and skill, with perceptions of national wealth providing a stronger explanation for individuals from disadvantaged regions. To the extent that such explanations are legitimized, these explanations may help maintain and reinforce both local and global inequality.

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Gender inequalities in the workplace: the effects of organizational structures, processes, practices, and decision makers' sexism

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Gender inequality in organizations is a complex phenomenon that can be seen in organizational structures, processes, and practices. For women, some of the most harmful gender inequalities are enacted within human resources (HRs) practices. This is because HR practices (i.e., policies, decision-making, and their enactment) affect the hiring, training, pay, and promotion of women. We propose a model of gender discrimination in HR that emphasizes the reciprocal nature of gender inequalities within organizations. We suggest that gender discrimination in HR-related decision-making and in the enactment of HR practices stems from gender inequalities in broader organizational structures, processes, and practices. This includes leadership, structure, strategy, culture, organizational climate, as well as HR policies. In addition, organizational decision makers' levels of sexism can affect their likelihood of making gender biased HR-related decisions and/or behaving in a sexist manner while enacting HR practices. Importantly, institutional discrimination in organizational structures, processes, and practices play a pre-eminent role because not only do they affect HR practices, they also provide a socializing context for organizational decision makers' levels of hostile and benevolent sexism. Although we portray gender inequality as a self-reinforcing system that can perpetuate discrimination, important levers for reducing discrimination are identified.

Keywords: hostile sexism, benevolent sexism, institutional discrimination, human resources practices, gender harassment, personal discrimination

Introduction

The workplace has sometimes been referred to as an inhospitable place for women due to the multiple forms of gender inequalities present (e.g., Abrams, 1991). Some examples of how workplace discrimination negatively affects women's earnings and opportunities are the gender wage gap (e.g., Peterson and Morgan, 1995), the dearth of women in leadership (Eagly and Carli, 2007), and the longer time required for women (vs. men) to advance in their careers (Blau and DeVaro, 2007). In other words, workplace discrimination contributes to women's lower socio-economic status. Importantly, such discrimination against women largely can be attributed to human resources (HR) policies and HR-related decision-making. Furthermore, when employees interact with organizational decision makers during HR practices, or when they are told the outcomes of HR-related decisions, they may experience personal discrimination in the form of

sexist comments. Both the objective disadvantages of lower pay, status, and opportunities at work, and the subjective experiences of being stigmatized, affect women's psychological and physical stress, mental and physical health (Goldenhar et al., 1998; Adler et al., 2000; Schmader et al., 2008; Borrel et al., 2010), job satisfaction and organizational commitment (Hicks-Clarke and Iles, 2000), and ultimately, their performance (Cohen-Charash and Spector, 2001).

Within this paper, we delineate the nature of discrimination within HR policies, decisions, and their enactment, as well as explore the causes of such discrimination in the workplace. Our model is shown in **Figure 1**. In the Section "Discrimination in HR Related Practices: HR Policy, Decisions, and their Enactment," we explain the distinction between HR policy, HR-related decision-making, and HR enactment and their relations to each other. Gender inequalities in HR policy are a form of institutional discrimination. We review evidence of institutional discrimination against women within HR policies set out to determine employee selection, performance evaluations, and promotions. In contrast, discrimination in HR-related decisions and their enactment can result from organizational decision makers' biased responses: it is a form of personal discrimination. Finally, we provide evidence of personal discrimination against women by organizational decision makers in HR-related decision-making and in the enactment of HR policies.

In the Section "The Effect of Organizational Structures, Processes, and Practices on HR Practices," we focus on the link between institutional discrimination in organizational structures, processes, and practices that can lead to personal discrimination in HR practices (see **Figure 1**). Inspired by the work of Gelfand et al. (2007), we propose that organizational structures, processes, and practices (i.e., leadership, structure, strategy, culture, climate, and HR policy) are interrelated and may contribute to discrimination. Accordingly, gender inequalities in each element can affect the others, creating a self-reinforcing system that can perpetuate institutional discrimination throughout the organization and that can lead to discrimination in HR policies, decision-making, and enactment. We also propose that these relations between gender inequalities in the organizational structures, processes, and practices and discrimination in HR practices can be bidirectional (see **Figure 1**). Thus, we also review how HR practices can contribute to gender inequalities in organizational structures, processes, and practices.

In the Section "The Effect of Hostile and Benevolent Sexism on How Organizational Decision Makers' Conduct HR Practices," we delineate the link between organizational decision makers' levels of sexism and their likelihood of making gender-biased HR-related decisions and/or behaving in a sexist manner when enacting HR policies (e.g., engaging in gender harassment). We focus on two forms of sexist attitudes: hostile and benevolent sexism (Glick and Fiske, 1996). Hostile sexism involves antipathy toward, and negative stereotypes about, agentic women. In contrast, benevolent sexism involves positive but paternalistic views of women as highly communal. Whereas previous research on workplace discrimination has focused on forms of sexism that

are hostile in nature, we extend this work by explaining how benevolent sexism, which is more subtle, can also contribute in meaningful yet distinct ways to gender discrimination in HR practices.

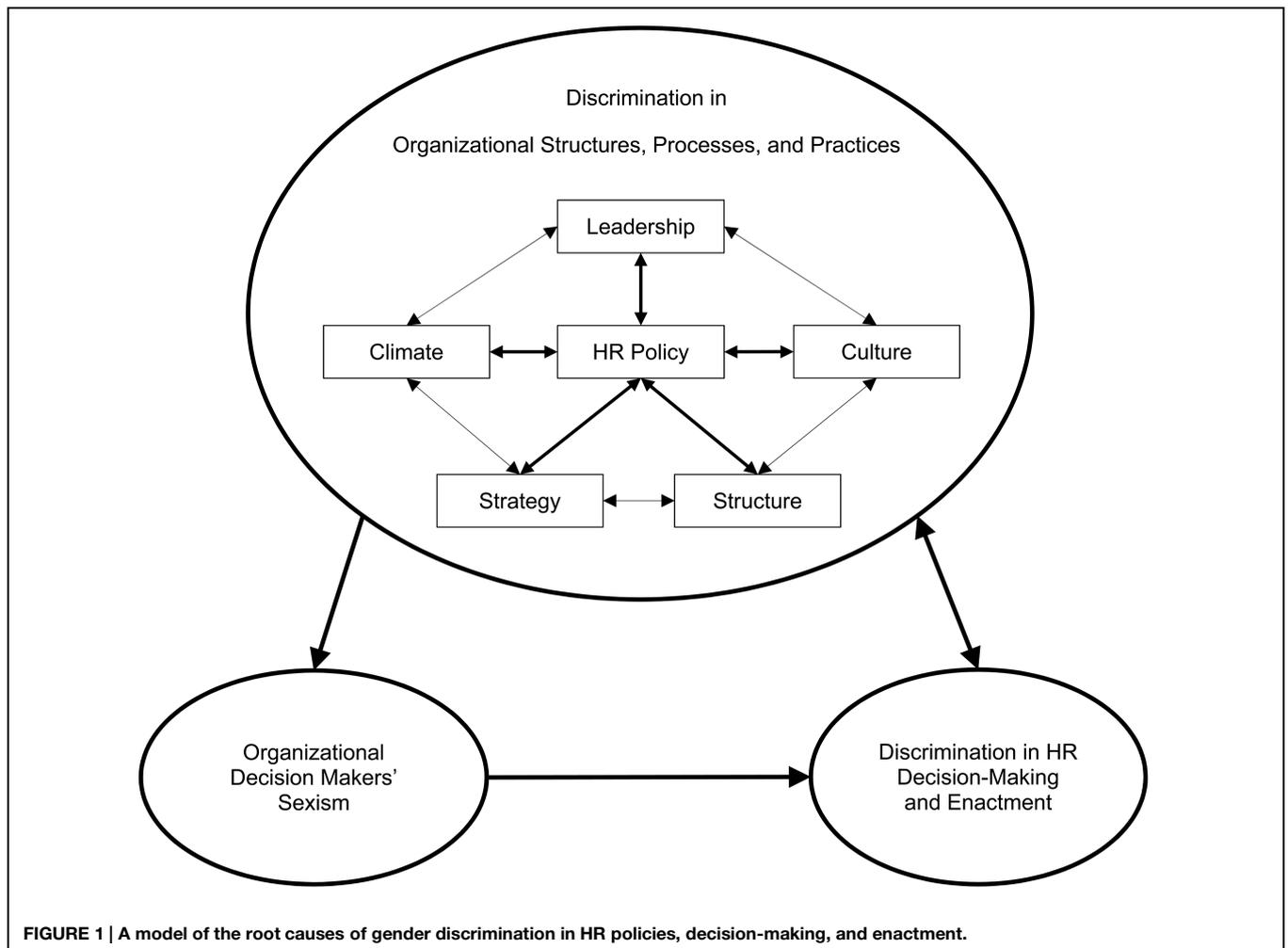
In the Section "The Effect of Organizational Structures, Processes, and Practices on Organizational Decision Makers' Levels of Hostile and Benevolent Sexism," we describe how institutional discrimination in organizational structures, processes, and practices play a critical role in our model because not only do they affect HR-related decisions and the enactment of HR policies, they also provide a socializing context for organizational decision makers' levels of hostile and benevolent sexism. In other words, where more institutional discrimination is present, we can expect higher levels of sexism—a third link in our model—which leads to gender bias in HR practices.

In the Section "How to Reduce Gender Discrimination in Organizations," we discuss how organizations can reduce gender discrimination. We suggest that, to reduce discrimination, organizations should focus on: HR practices, other closely related organizational structures, processes, and practices, and the reduction of organizational decision makers' level of sexism. Organizations should take such a multifaceted approach because, consistent with our model, gender discrimination is a result of a complex interplay between these factors. Therefore, a focus on only one factor may not be as effective if all the other elements in the model continue to promote gender inequality.

The model we propose for understanding gender inequalities at work is, of course, limited and not intended to be exhaustive. First, we only focus on women's experience of discrimination. Although men also face discrimination, the focus of this paper is on women because they are more often targets (Branscombe, 1998; Schmitt et al., 2002; McLaughlin et al., 2012) and discrimination is more psychologically damaging for women than for men (Barling et al., 1996; Schmitt et al., 2002). Furthermore, we draw on research from Western, individualistic countries conducted between the mid-1980s to the mid-2010s that might not generalize to other countries or time frames. In addition, this model derives from research that has been conducted primarily in sectors dominated by men. This is because gender discrimination (Mansfield et al., 1991; Welle and Heilman, 2005) and harassment (Mansfield et al., 1991; Berdhal, 2007) against women occur more in environments dominated by men. Now that we have outlined the sections of the paper and our model, we now turn to delineating how gender discrimination in the workplace can be largely attributed to HR practices.

Discrimination in HR Related Practices: HR Policy, Decisions, and their Enactment

In this section, we explore the nature of gender discrimination in HR practices, which involves HR policies, HR-related decision-making, and their enactment by organizational decision makers. HR is a system of organizational practices aimed at managing employees and ensuring that they are accomplishing



organizational goals (Wright et al., 1994). HR functions include: selection, performance evaluation, leadership succession, and training. Depending on the size and history of the organization, HR systems can range from those that are well structured and supported by an entire department, led by HR specialists, to haphazard sets of policies and procedures enacted by managers and supervisors without formal training. HR practices are critically important because they determine the access employees have to valued reward and outcomes within an organization, and can also influence their treatment within an organization (Levitin et al., 1971).

Human resource practices can be broken down into formal HR policy, HR-related decision-making, and the enactment of HR policies and decisions. HR policy codifies practices for personnel functions, performance evaluations, employee relations, and resource planning (Wright et al., 1994). HR-related decision-making occurs when organizational decision makers (i.e., managers, supervisors, or HR personnel) employ HR policy to determine how it will be applied to a particular situation and individual. The enactment of HR involves the personal interactions between organizational decision makers and job candidates or employees when HR policies

are applied. Whereas HR policy can reflect institutional discrimination, HR-related decision-making and enactment can reflect personal discrimination by organizational decision makers.

Institutional Discrimination in HR Policy

Human resource policies that are inherently biased against a group of people, regardless of their job-related knowledge, skills, abilities, and performance can be termed institutional discrimination. Institutional discrimination against women can occur in each type of HR policy from the recruitment and selection of an individual into an organization, through his/her role assignments, training, pay, performance evaluations, promotion, and termination. For instance, if women are under-represented in a particular educational program or a particular job type and those credentials or previous job experience are required to be considered for selection, women are being systematically, albeit perhaps not intentionally, discriminated against. In another example, there is gender discrimination if a test is used in the selection battery for which greater gender differences emerge, than those that emerge for job performance ratings (Hough et al., 2001). Thus, institutional discrimination

can be present within various aspects of HR selection policy, and can negatively affect women's work outcomes.

Institutional discrimination against women also occurs in performance evaluations that are used to determine organizational rewards (e.g., compensation), opportunities (e.g., promotion, role assignments), and punishments (e.g., termination). Gender discrimination can be formalized into HR policy if criteria used by organizational decision makers to evaluate job performance systematically favor men over women. For instance, "face time" is a key performance metric that rewards employees who are at the office more than those who are not. Given that women are still the primary caregivers (Acker, 1990; Fuegen et al., 2004), women use flexible work arrangements more often than men and, consequently, face career penalties because they score lower on face time (Glass, 2004). Thus, biased criteria in performance evaluation policies can contribute to gender discrimination.

Human resource policies surrounding promotions and opportunities for advancement are another area of concern. In organizations with more formal job ladders that are used to dictate and constrain workers' promotion opportunities, women are less likely to advance (Perry et al., 1994). This occurs because job ladders tend to be divided by gender, and as such, gender job segregation that is seen at entry-level positions will be strengthened as employees move up their specific ladder with no opportunity to cross into other lines of advancement. Thus, women will lack particular job experiences that are not available within their specific job ladders, making them unqualified for advancement (De Pater et al., 2010).

In sum, institutional discrimination can be present within HR policies set out to determine employee selection, performance evaluations, and promotions. These policies can have significant effects on women's careers. However, HR policy can only be used to guide HR-related decision-making. In reality, it is organizational decision-makers, that is, managers, supervisors, HR personnel who, guided by policy, must evaluate job candidates or employees and decide how policy will be applied to individuals.

Personal Discrimination in HR-Related Decision-Making

The practice of HR-related decision-making involves social cognition in which others' competence, potential, and deservingness are assessed by organizational decision makers. Thus, like all forms of social cognition, HR-related decision-making is open to personal biases. HR-related decisions are critically important because they determine women's pay and opportunities at work (e.g., promotions, training opportunities). Personal discrimination against women by organizational decision makers can occur in each stage of HR-related decision-making regarding recruitment and selection, role assignments, training opportunities, pay, performance evaluation, promotion, and termination.

Studies with varying methodologies show that women face personal discrimination when going through the selection process (e.g., Goldberg, 1968; Rosen and Jerdee, 1974). Meta-analyses reveal that, when being considered for male-typed

(i.e., male dominated, believed-to-be-for-men) jobs, female candidates are evaluated more negatively and recommended for employment less often by study participants, compared with matched male candidates (e.g., Hunter et al., 1982; Tosi and Einbender, 1985; Olian et al., 1988; Davison and Burke, 2000). For example, in audit studies, which involve sending ostensibly real applications for job openings while varying the gender of the applicant, female applicants are less likely to be interviewed or called back, compared with male applicants (e.g., McIntyre et al., 1980; Firth, 1982). In a recent study, male and female biology, chemistry, and physics professors rated an undergraduate science student for a laboratory manager position (Moss-Racusin et al., 2012). The male applicant was rated as significantly more competent and hireable, offered a higher starting salary (about \$4000), and offered more career mentoring than the female applicant was. In summary, women face a distinct disadvantage when being considered for male-typed jobs.

There is ample evidence that women experience biased performance evaluations on male-typed tasks. A meta-analysis of experimental studies reveals that women in leadership positions receive lower performance evaluations than matched men; this is amplified when women act in a stereotypically masculine, that is, agentic fashion (Eagly et al., 1992). Further, in masculine domains, women are held to a higher standard of performance than men are. For example, in a study of military cadets, men and women gave their peers lower ratings if they were women, despite having objectively equal qualifications to men (Boldry et al., 2001). Finally, women are evaluated more poorly in situations that involve complex problem solving; in these situations, people are skeptical regarding women's expertise and discredit expert women's opinions but give expert men the benefit of the doubt (Thomas-Hunt and Phillips, 2004).

Sometimes particular types of women are more likely to be discriminated against in selection and performance evaluation decisions. Specifically, agentic women, that is, those who behave in an assertive, task-oriented fashion, are rated as less likeable and less hireable than comparable agentic male applicants (Heilman and Okimoto, 2007; Rudman and Phelan, 2008; Rudman et al., 2012). In addition, there is evidence of discrimination against pregnant women when they apply for jobs (Hebl et al., 2007; Morgan et al., 2013). Further, women who are mothers are recommended for promotion less than women who are not mothers or men with or without children (Heilman and Okimoto, 2008). Why might people discriminate specifically against agentic women and pregnant women or mothers, who are seemingly very different? The stereotype content model, accounts for how agentic women, who are perceived to be high in competence and low in warmth, will be discriminated against because of feelings of competition; whereas, pregnant women and mothers, who are seen as low in competence, but high in warmth, will be discriminated against because of a perceived lack of deservingness (Fiske et al., 1999, 2002; Cuddy et al., 2004). Taken together, research has uncovered that different forms of bias toward specific subtypes of women have the same overall effect—bias in selection and performance evaluation decisions.

Women are also likely to receive fewer opportunities at work, compared with men, resulting in their under-representation at higher levels of management and leadership within organizations (Martell et al., 1996; Eagly and Carli, 2007). Managers give women fewer challenging roles and fewer training opportunities, compared with men (King et al., 2012; Glick, 2013). For instance, female managers (Lyness and Thompson, 1997) and midlevel workers (De Pater et al., 2010) have less access to high-level responsibilities and challenges that are precursors to promotion. Further, men are more likely to be given key leadership assignments in male-dominated fields *and in female-dominated fields* (e.g., Maume, 1999; De Pater et al., 2010). This is detrimental given that challenging roles, especially developmental ones, help employees gain important skills needed to excel in their careers (Spreitzer et al., 1997).

Furthermore, managers rate women as having less promotion potential than men (Roth et al., 2012). Given the same level of qualifications, managers are less likely to grant promotions to women, compared with men (Lazear and Rosen, 1990). Thus, men have a faster ascent in organizational hierarchies than women (Cox and Harquail, 1991; Stroh et al., 1992; Blau and DeVaro, 2007). Even minimal amounts of gender discrimination in promotion decisions for a particular job or level can have large, cumulative effects given the pyramid structure of most hierarchical organizations (Martell et al., 1996; Baxter and Wright, 2000). Therefore, discrimination by organizational decision makers results in the under-promotion of women.

Finally, women are underpaid, compared with men. In a comprehensive US study using data from 1983 to 2000, after controlling for human capital factors that could affect wages (e.g., education level, work experience), the researchers found that women were paid 22% less than men (U.S. Government Accountability Office, 2003). Further, within any given occupation, men typically have higher wages than women; this “within-occupation” wage gap is especially prominent in more highly paid occupations (U.S. Census Bureau, 2007). In a study of over 2000 managers, women were compensated less than men were, even after controlling for a number of human capital factors (Ostroff and Atwater, 2003). Experimental work suggests that personal biases by organizational decision makers contribute to the gender wage gap. When participants are asked to determine starting salaries for matched candidates that differ by gender, they pay men more (e.g., Steinpreis et al., 1999; Moss-Racusin et al., 2012). Such biases are consequential because starting salaries determine life-time earnings (Gerhart and Rynes, 1991). In experimental studies, when participants evaluate a man vs. a woman who is matched on job performance, they choose to compensate men more (Marini, 1989; Durden and Gaynor, 1998; Lips, 2003). Therefore, discrimination in HR-related decision-making by organizational decision makers can contribute to women being paid less than men are.

Taken together, we have shown that there is discrimination against women in decision-making related to HR. These biases from organizational decision makers can occur in each stage of HR-related decision-making and these biased HR decisions have

been shown to negatively affect women’s pay and opportunities at work. In the next section, we review how biased HR practices are enacted, which can involve gender harassment.

Personal Discrimination in HR Enactment

By HR enactment, we refer to those situations where current or prospective employees go through HR processes or when they receive news of their outcomes from organizational decision makers regarding HR-related issues. Personal gender discrimination can occur when employees are given sexist messages, by organizational decision makers, related to HR enactment. More specifically, this type of personal gender discrimination is termed gender harassment, and consists of a range of verbal and non-verbal behaviors that convey sexist, insulting, or hostile attitudes about women (Fitzgerald et al., 1995a,b). Gender harassment is the most common form of sex-based discrimination (Fitzgerald et al., 1988; Schneider et al., 1997). For example, across the military in the United States, 52% of the 9,725 women surveyed reported that they had experienced gender harassment in the last year (Leskinen et al., 2011, Study 1). In a random sample of attorneys from a large federal judicial circuit, 32% of the 1,425 women attorneys surveyed had experienced gender harassment in the last 5 years (Leskinen et al., 2011, Study 2). When examining women’s experiences of gender harassment, 60% of instances were perpetrated by their supervisor/manager or a person in a leadership role (cf. Crocker and Kalemba, 1999; McDonald et al., 2008). Thus, personal discrimination in the form of gender harassment is a common behavior; however, is it one that organizational decision makers engage in when enacting HR processes and outcomes?

Although it might seem implausible that organizational decision makers would convey sexist sentiments to women when giving them the news of HR-related decisions, there have been high-profile examples from discrimination lawsuits where this has happened. For example, in a class action lawsuit against Walmart, female workers claimed they were receiving fewer promotions than men despite superior qualifications and records of service. In that case, the district manager was accused of confiding to some of the women who were overlooked for promotions that they were passed over because he was not in favor of women being in upper management positions (Walmart Stores, Inc. v. Dukes, 2004/2011). In addition, audit studies, wherein matched men and women apply to real jobs, have revealed that alongside discrimination (McIntyre et al., 1980; Firth, 1982; Moss-Racusin et al., 2012), women experience verbal gender harassment when applying for sex atypical jobs, such as sexist comments as well as skeptical or discouraging responses from hiring staff (Neumark, 1996). Finally, gender harassment toward women when HR policies are enacted can also take the form of offensive comments and denying women promotions due to pregnancy or the chance of pregnancy. For example, in *Moore v. Alabama*, an employee was 8 months pregnant and the woman’s supervisor allegedly looked at her belly and said “I was going to make you head of the office, but look at you now” (*Moore v. Alabama State University*, 1996, p. 431; Williams, 2003). Thus, organizational decision makers will at times convey

sexist sentiments to women when giving them the news of HR-related decisions.

Interestingly, whereas discrimination in HR policy and in HR-related decision-making is extremely difficult to detect (Crosby et al., 1986; Major, 1994), gender harassment in HR enactment provides direct cues to recipients that discrimination is occurring. In other words, although women's lives are negatively affected in concrete ways by discrimination in HR policy and decisions (e.g., not receiving a job, being underpaid), they may not perceive their negative outcomes as due to gender discrimination. Indeed, there is a multitude of evidence that women and other stigmatized group members are loath to make attributions to discrimination (Crosby, 1984; Vorauer and Kumhyr, 2001; Stangor et al., 2003) and instead are likely to make internal attributions for negative evaluations unless they are certain the evaluator is biased against their group (Ruggiero and Taylor, 1995; Major et al., 2003). However, when organizational decision makers engage in gender harassment during HR enactment women should be more likely to interpret HR policy and HR-related decisions as discriminatory.

Now that we have specified the nature of institutional gender discrimination in HR policy and personal discrimination in HR-related decision-making and in HR enactment, we turn to the issue of understanding the causes of such discrimination: gender discrimination in organizational structures, processes, and practices, and personal biases of organizational decision makers.

The Effect of Organizational Structures, Processes, and Practices on HR Practices

The first contextual factor within which gender inequalities can be institutionalized is leadership. Leadership is a process wherein an individual (e.g., CEOs, managers) influences others in an effort to reach organizational goals (Chemers, 1997; House and Aditya, 1997). Leaders determine and communicate what the organization's priorities are to all members of the organization. Leaders are important as they affect the other organizational structures, processes, and practices. Specifically, leaders set culture, set policy, set strategy, and are role models for socialization. We suggest that one important way institutional gender inequality in leadership exists is when women are under-represented, compared with men—particularly when women are well-represented at lower levels within an organization.

An underrepresentation of women in leadership can be perpetuated easily because the gender of organizational leaders affects the degree to which there is gender discrimination, gender supportive policies, and a gender diversity supportive climate within an organization (Ostroff et al., 2012). Organizational members are likely to perceive that the climate for women is positive when women hold key positions in the organization (Konrad et al., 2010). Specifically, the presence of women in key positions acts as a vivid symbol indicating that the organization supports gender diversity. Consistent with this, industries that

have fewer female high status managers have a greater gender wage gap (Cohen and Huffman, 2007). Further, women who work with a male supervisor perceive less organizational support, compared with those who work with a female supervisor (Konrad et al., 2010). In addition, women who work in departments that are headed by a man report experiencing more gender discrimination, compared with their counterparts in departments headed by women (Konrad et al., 2010). Some of these effects may be mediated by a similar-to-me bias (Tsui and O'Reilly, 1989), where leaders set up systems that reward and promote individuals like themselves, which can lead to discrimination toward women when leaders are predominantly male (Davison and Burke, 2000; Roth et al., 2012). Thus, gender inequalities in leadership affect women's experiences in the workplace and their likelihood of facing discrimination.

The second contextual factor to consider is organizational structure. The formal structure of an organization is how an organization arranges itself and it consists of employee hierarchies, departments, etc. (Grant, 2010). An example of institutional discrimination in the formal structure of an organization are job ladders, which are typically segregated by gender (Perry et al., 1994). Such gender-segregated job ladders typically exist within different departments of the organization. Women belonging to gender-segregated networks within organizations (Brass, 1985) have less access to information about jobs, less status, and less upward mobility within the organization (Ragins and Sundstrom, 1989; McDonald et al., 2009). This is likely because in gender-segregated networks, women have less visibility and lack access to individuals with power (Ragins and Sundstrom, 1989). In gender-segregated networks, it is also difficult for women to find female mentors because there is a lack of women in high-ranking positions (Noe, 1988; Linehan and Scullion, 2008). Consequently, the organizational structure can be marked by gender inequalities that reduce women's chances of reaching top-level positions in an organization.

Gender inequalities can be inherent in the structure of an organization when there are gender segregated departments, job ladders, and networks, which are intimately tied to gender discrimination in HR practices. For instance, if HR policies are designed such that pay is determined based on comparisons between individuals only within a department (e.g., department-wide reporting structure, job descriptions, performance evaluations), then this can lead to a devaluation of departments dominated by women. The overrepresentation of women in certain jobs leads to the lower status of those jobs; consequently, the pay brackets for these jobs decrease over time as the number of women in these jobs increase (e.g., Huffman and Velasco, 1997; Reilly and Wirjanto, 1999). Similarly, networks led by women are also devalued for pay. For example, in a study of over 2,000 managers, after controlling for performance, the type of job, and the functional area (e.g., marketing, sales, accounting), those who worked with female managers had lower wages than those who worked with male managers (Ostroff and Atwater, 2003). Thus, gender inequalities in an organization's structure in terms of gender segregation have reciprocal effects with gender discrimination in HR policy and decision-making.

Another contextual factor in our model is organizational strategy and how institutional discrimination within strategy is related to discrimination in HR practices. Strategy is a plan, method, or process by which an organization attempts to achieve its objectives, such as being profitable, maintaining and expanding its consumer base, marketing strategy, etc. (Grant, 2010). Strategy can influence the level of inequality within an organization (Morrison and Von Glinow, 1990; Hunter et al., 2001). For example, Hooters, a restaurant chain, has a marketing strategy to sexually attract heterosexual males, which has led to discrimination in HR policy, decisions, and enactment because only young, good-looking women are considered qualified (Schneyer, 1998). When faced with appearance-based discrimination lawsuits regarding their hiring policies, Hooters has responded by claiming that such appearance requirements are bona fide job qualifications given their marketing strategy (for reviews, see Schneyer, 1998; Adamitis, 2000). Hooters is not alone, as many other establishments attempt to attract male clientele by requiring their female servers to meet a dress code involving a high level of grooming (make-up, hair), a high heels requirement, and a revealing uniform (McGinley, 2007). Thus, sexist HR policies and practices in which differential standards are applied to male and female employees can stem from a specific organizational strategy (Westall, 2015).

We now consider institutional gender bias within organizational culture and how it relates to discrimination in HR policies. Organizational culture refers to collectively held beliefs, assumptions, and values held by organizational members (Trice and Beyer, 1993; Schein, 2010). Cultures arise from the values of the founders of the organization and assumptions about the right way of doing things, which are learned from dealing with challenges over time (Ostroff et al., 2012). The founders and leaders of an organization are the most influential in forming, maintaining, and changing culture over time (e.g., Trice and Beyer, 1993; Jung et al., 2008; Hartnell and Walumbwa, 2011). Organizational culture can contribute to gender inequalities because culture constrains people's ideas of what is possible: their strategies of action (Swidler, 1986). In other words, when people encounter a problem in their workplace, the organizational culture—who we are, how we act, what is right—will provide only a certain realm of behavioral responses. For instance, in organizational cultures marked by greater gender inequality, women may have lower hopes and expectations for promotion, and when they are discriminated against, may be less likely to imagine that they can appeal their outcomes (Kanter, 1977; Cassirer and Reskin, 2000). Furthermore, in organizational cultures marked by gender inequality, organizational decision makers should hold stronger descriptive and proscriptive gender stereotypes: they should more strongly believe that women have less ability to lead, less career commitment, and less emotional stability, compared with men (Eagly et al., 1992; Heilman, 2001). We expand upon this point later.

Other aspects of organizational culture that are less obviously related to gender can also lead to discrimination in HR practices. For instance, an organizational culture that emphasizes concerns with meritocracy, can lead organizational members to oppose HR efforts to increase gender equality. This is because when people

believe that outcomes ought to go only to those who are most deserving, it is easy for them to fall into the trap of believing that outcomes currently do go to those who are most deserving (Son Hing et al., 2011). Therefore, people will believe that men deserve their elevated status and women deserve their subordinated status at work (Castilla and Benard, 2010). Furthermore, the more people care about merit-based outcomes, the more they oppose affirmative action and diversity initiatives for women (Bobocel et al., 1998; Son Hing et al., 2011), particularly when they do not recognize that discrimination occurs against women in the absence of such policies (Son Hing et al., 2002). Thus, a particular organizational culture can influence the level of discrimination against women in HR and prevent the adoption of HR policies that would mitigate gender discrimination.

Finally, gender inequalities can be seen in organizational climates. An organizational climate consists of organizational members' shared perceptions of the formal and informal organizational practices, procedures, and routines (Schneider et al., 2011) that arise from direct experiences of the organization's culture (Ostroff et al., 2012). Organizational climates tend to be conceptualized and studied as "climates for" an organizational strategy (Schneider, 1975; Ostroff et al., 2012). Gender inequalities are most clearly reflected in two forms of climate: climates for diversity and climates for sexual harassment.

A positive climate for diversity exists when organizational members perceive that diverse groups are included, empowered, and treated fairly. When employees perceive a less supportive diversity climate, they perceive greater workplace discrimination (Cox, 1994; Ragins and Cornwall, 2001; Triana and García, 2009), and experience lower organizational commitment and job satisfaction (Hicks-Clarke and Iles, 2000), and higher turnover intentions (Triana et al., 2010). Thus, in organizations with a less supportive diversity climate, women are more likely to leave the organization, which contributes to the underrepresentation of women in already male-dominated arenas (Miner-Rubino and Cortina, 2004).

A climate for sexual harassment involves perceptions that the organization is permissive of sexual harassment. In organizational climates that are permissive of harassment, victims are reluctant to come forward because they believe that their complaints will not be taken seriously (Hulin et al., 1996) and will result in negative personal consequences (e.g., Offermann and Malamut, 2002). Furthermore, men with a proclivity for harassment are more likely to act out these behaviors when permissive factors are present (Pryor et al., 1993). Therefore, a permissive climate for sexual harassment can result in more harassing behaviors, which can lead women to disengage from their work and ultimately leave the organization (Kath et al., 2009).

Organizational climates for diversity and for sexual harassment are inextricably linked to HR practices. For instance, a factor that leads to perceptions of diversity climates is whether the HR department has diversity training (seminars, workshops) and how much time and money is devoted to diversity efforts (Triana and García, 2009). Similarly, a climate for sexual harassment depends on organizational members' perceptions of how strict the workplace's sexual harassment policy is, and

how likely offenders are to be punished (Fitzgerald et al., 1995b; Hulin et al., 1996). Thus, HR policies, decision-making, and their enactment strongly affect gender inequalities in organizational climates and gender inequalities throughout an organization.

In summary, gender inequalities can exist within organizational structures, processes, and practices. However, organizational leadership, structure, strategy, culture, and climate do not inherently need to be sexist. It could be possible for these organizational structures, processes, and practices to promote gender equality. We return to this issue in the conclusion section.

The Effect of Hostile and Benevolent Sexism on How Organizational Decision Makers' Conduct HR Practices

In this section, we explore how personal biases can affect personal discrimination in HR-related decisions and their enactment. Others have focused on how negative or hostile attitudes toward women predict discrimination in the workplace. However, we extend this analysis by drawing on ambivalent sexism theory, which involves hostile sexism (i.e., antagonistic attitudes toward women) and benevolent sexism (i.e., paternalistic attitudes toward women; see also Glick, 2013), both of which lead to discrimination against women.

Stereotyping processes are one possible explanation of how discrimination against women in male-typed jobs occurs and how women are relegated to the “pink ghetto” (Heilman, 1983; Eagly and Karau, 2002; Rudman et al., 2012). Gender stereotypes, that is, expectations of what women and men are like, and what they should be like, are one of the most powerful schemas activated when people encounter others (Fiske et al., 1991; Stangor et al., 1992). According to status characteristics theory, people's group memberships convey important information about their status and their competence on specific tasks (Berger et al., 1974; Berger et al., 1998; Correll and Ridgeway, 2003). Organizational decision makers will, for many jobs, have different expectations for men's and women's competence and job performance. Expectations of stereotyped-group members' success can affect gender discrimination that occurs in HR-related decisions and enactment (Roberson et al., 2007). For example, men are preferred over women for masculine jobs and women are preferred over men for feminine jobs (Davison and Burke, 2000). Thus, the more that a workplace role is inconsistent with the attributes ascribed to women, the more a particular woman might be seen as lacking “fit” with that role, resulting in decreased performance expectations (Heilman, 1983; Eagly and Karau, 2002).

Furthermore, because women are associated with lower status, and men with higher status, women experience backlash for pursuing high status roles (e.g., leadership) in the workplace (Rudman et al., 2012). In other words, agentic women who act competitively and confidently in a leadership role, are rated as more socially deficient, less likeable and less hireable, compared with men who act the same way (Rudman, 1998;

Rudman et al., 2012). Interestingly though, if women pursue roles in the workplace that are congruent with traditional gender expectations, they will elicit positive reactions (Eagly and Karau, 2002).

Thus, cultural, widely known, gender stereotypes can affect HR-related decisions. However, such an account does not take into consideration individual differences among organizational decision makers (e.g., managers, supervisors, or HR personnel) who may vary in the extent to which they endorse sexist attitudes or stereotypes. Individual differences in various forms of sexism (e.g., modern sexism, neosexism) have been demonstrated to lead to personal discrimination in the workplace (Hagen and Kahn, 1975; Beaton et al., 1996; Hitlan et al., 2009). Ambivalent sexism theory builds on earlier theories of sexism by including attitudes toward women that, while sexist, are often experienced as positive in valence by perceivers and targets (Glick and Fiske, 1996). Therefore, we draw on ambivalent sexism theory, which conceptualizes sexism as a multidimensional construct that encompasses both hostile and benevolent attitudes toward women (Glick and Fiske, 1996, 2001).

Hostile sexism involves antipathy and negative stereotypes about women, such as beliefs that women are incompetent, overly emotional, and sexually manipulative. Hostile sexism also involves beliefs that men should be more powerful than women and fears that women will try to take power from men (Glick and Fiske, 1996; Cikara et al., 2008). In contrast, benevolent sexism involves overall positive views of women, as long as they occupy traditionally feminine roles. Individuals with benevolently sexist beliefs characterize women as weak and needing protection, support, and adoration. Importantly, hostile and benevolent sexism tend to go hand-in-hand (with a typical correlation of 0.40; Glick et al., 2000). This is because ambivalent sexists, people who are high in benevolent and hostile sexism, believe that women should occupy restricted domestic roles and that women are weaker than men are (Glick and Fiske, 1996). Ambivalent sexists reconcile their potentially contradictory attitudes about women by acting hostile toward women whom they believe are trying to steal men's power (e.g., feminists, professionals who show competence) and by acting benevolently toward traditional women (e.g., homemakers) who reinforce conventional gender relations and who serve men (Glick et al., 1997). An individual difference approach allows us to build on the earlier models (Heilman, 1983; Eagly and Karau, 2002; Rudman et al., 2012), by specifying who is more likely to discriminate against women and why.

Organizational decision makers who are higher (vs. lower) in hostile sexism should discriminate more against women in HR-related decisions (Glick et al., 1997; Masser and Abrams, 2004). For instance, people high in hostile sexism have been found to evaluate candidates, who are believed to be women, more negatively and give lower employment recommendations for a management position, compared with matched candidates believed to be men (Salvaggio et al., 2009)¹. In another study, among participants who evaluated a female candidate for a

¹In this study, candidates were identified with initials and participants were asked to indicate the presumed gender of the candidate after evaluating them.

managerial position, those higher in hostile sexism were less likely to recommend her for hire, compared with those lower in hostile sexism (Masser and Abrams, 2004). Interestingly, among those evaluating a matched man for the same position, those higher (vs. lower) in hostile sexism were more likely to recommend him for hire (Masser and Abrams, 2004). According to ambivalent sexism theorists (Glick et al., 1997), because people high in hostile sexism see women as a threat to men's status, they act as gatekeepers denying women access to more prestigious or masculine jobs.

Furthermore, when enacting HR policies and decisions, organizational decision makers who are higher (vs. lower) in hostile sexism should discriminate more against women in the form of gender harassment. Gender harassment can involve hostile terms of address, negative comments regarding women in management, sexist jokes, and sexist behavior (Fitzgerald et al., 1995a,b). It has been found that people higher (vs. lower) in hostile sexism have more lenient attitudes toward the sexual harassment of women, which involves gender harassment, in the workplace (Begany and Milburn, 2002; Russell and Trigg, 2004). Furthermore, men who more strongly believe that women are men's adversaries tell more sexist jokes to a woman (Mitchell et al., 2004). Women also report experiencing more incivility (i.e., low level, rude behavior) in the workplace than men (Björkqvist et al., 1994; Cortina et al., 2001, 2002), which could be due to hostile attitudes toward women. In summary, the evidence is consistent with the idea that organizational decision makers' hostile sexism should predict their gender harassing behavior during HR enactment; however, more research is needed for such a conclusion.

In addition, organizational decision makers who are higher (vs. lower) in benevolent sexism should discriminate more against women when making HR-related decisions. It has been found that people higher (vs. lower) in benevolent sexism are more likely to automatically associate men with high-authority and women with low-authority roles and to implicitly stereotype men as agentic and women as communal (Rudman and Kilianski, 2000). Thus, organizational decision makers who are higher (vs. lower) in benevolent sexism should more strongly believe that women are unfit for organizational roles that are demanding, challenging, and requiring agentic behavior. Indeed, in studies of male MBA students those higher (vs. lower) in benevolent sexism assigned a fictional woman less challenging tasks than a matched man (King et al., 2012). The researchers reasoned that this occurred because men are attempting to "protect" women from the struggles of challenging work. Although there has been little research conducted that has looked at benevolent sexism and gender discrimination in HR-related decisions, the findings are consistent with our model.

Finally, organizational decision makers who are higher (vs. lower) in benevolent sexism should engage in a complex form of gender discrimination when enacting HR policy and decisions that involves mixed messages: women are more likely to receive messages of positive verbal feedback (e.g., "stellar work," "excellent work") but lower numeric ratings on performance appraisals, compared with men (Biernat et al.,

2012). It is proposed that this pattern of giving women positive messages about their performance while rating them poorly reflects benevolent sexists' desire to protect women from harsh criticism. However, given that performance appraisals are used for promotion decisions and that constructive feedback is needed for learning, managers' unwillingness to give women negative verbal criticisms can lead to skill plateau and career stagnation.

Furthermore, exposure to benevolent sexism can harm women's motivation, goals and performance. Adolescent girls whose mothers are high in benevolent (but not hostile) sexism display lower academic goals and academic performance (Montañés et al., 2012). Of greater relevance to the workplace, when role-playing a job candidate, women who interacted with a hiring manager scripted to make benevolently sexist statements became preoccupied with thoughts about their incompetence, and consequently performed worse in the interview, compared with those in a control condition (Dardenne et al., 2007). These findings suggest that benevolent sexism during the enactment of HR practices can harm women's work-related motivation and goals, as well as their performance, which can result in a self-fulfilling prophecy (Word et al., 1974). In other words, the low expectations benevolent sexists have of women can be confirmed by women as they are undermined by paternalistic messages.

Ambivalent sexism can operate to harm women's access to jobs, opportunities for development, ratings of performance, and lead to stigmatization. However, hostile and benevolent sexism operate in different ways. Hostile sexism has direct negative consequences for women's access to high status, male-typed jobs (Masser and Abrams, 2004; Salvaggio et al., 2009), and it is related to higher rates of sexual harassment (Fitzgerald et al., 1995b; Mitchell et al., 2004; Russell and Trigg, 2004), which negatively affect women's health, well-being, and workplace withdrawal behaviors (Willness et al., 2007). In contrast, benevolent sexism has indirect negative consequences for women's careers, for instance, in preventing access to challenging tasks (King et al., 2012) and critical developmental feedback (Vescio et al., 2005). Interestingly, exposure to benevolent sexism results in worsened motivation and cognitive performance, compared with exposure to hostile sexism (Dardenne et al., 2007; Montañés et al., 2012). This is because women more easily recognize hostile sexism as a form of discrimination and inequality, compared with benevolent sexism, which can be more subtle in nature (Dardenne et al., 2007). Thus, women can externalize hostile sexism and mobilize against it, but the subtle nature of benevolent sexism prevents these processes (Kay et al., 2005; Becker and Wright, 2011). Therefore, hostile and benevolent sexism lead to different but harmful forms of HR discrimination. Future research should more closely examine their potentially different consequences.

Thus far, we have articulated how gender inequalities in organizational structures, processes, and practices can affect discrimination in HR policy and in HR-related decision-making and enactment. Furthermore, we have argued that organizational decision makers' levels of hostile and benevolent sexism are critical factors leading to personal discrimination

in HR-related decision-making and enactment, albeit in different forms. We now turn to an integration of these two phenomena.

The Effect of Organizational Structures, Processes, and Practices on Organizational Decision Makers' Levels of Hostile and Benevolent Sexism

Organizational decision makers' beliefs about men and women should be affected by the work environments in which they are embedded. Thus, when there are more gender inequalities within organizational structures, processes, and practices, organizational decision makers should have higher levels of hostile sexism and benevolent sexism. Two inter-related processes can account for this proposition: the establishment of who becomes and remains an organizational member, and the socialization of organizational members.

First, as organizations develop over time, forces work to attract, select, and retain an increasingly homogenous set of employees in terms of their hostile and benevolent sexism (Schneider, 1983, 1987). In support of this perspective, an individual's values tend to be congruent with the values in his or her work environment (e.g., Holland, 1996; Kristof-Brown et al., 2005). People are attracted to and choose to work for organizations that have characteristics similar to their own, and organizations select individuals who are likely to fit with the organization. Thus, more sexist individuals are more likely to be attracted to organizations with greater gender inequality in leadership, structure, strategy, culture, climate, and HR policy; and they will be seen as a better fit during recruitment and selection. Finally, individuals who do not fit with the organization tend to leave voluntarily through the process of attrition. Thus, less (vs. more) sexist individuals would be more likely to leave a workplace with marked gender inequalities in organizational structures, processes, and practices. The opposite should be true for organizations with high gender equality. Through attraction, selection, and attrition processes it is likely that organizational members will become more sexist in a highly gender unequal organization and less sexist in a highly gender equal organization.

Second, socialization processes can change organizational members' personal attributes, goals, and values to match those of the organization (Ostroff and Rothausen, 1997). Organizational members' receive both formal and informal messages about gender inequality—or equality—within an organization through their orientation and training, reading of organizational policy, perceptions of who rises in the ranks, how women (vs. men) are treated within the organization, as well as their perception of climates for diversity and sexual harassment. Socialization of organizational members over time has been shown to result in organizational members' values and personalities changing to better match the values of the organization (Kohn and Schooler, 1982; Cable and Parsons, 2001).

These socialization processes can operate to change organizational members' levels of sexism. It is likely that

within more sexist workplaces, people's levels of hostile and benevolent sexism increase because their normative beliefs shift due to exposure to institutional discrimination against women, others' sexist attitudes and behavior, and gender bias in culture and climate (Schwartz and DeKeseredy, 2000; Ford et al., 2008; Banyard et al., 2009). These processes can also lead organizational decision makers to adopt less sexist attitudes in a workplace context marked by greater gender equality. Thus, organizational members' levels of hostile and benevolent sexism can be shaped by the degree of gender inequalities in organizational structures, processes, and practices and by the sexism levels of their work colleagues.

In addition, organizational decision makers can be socialized to act in discriminatory ways without personally becoming more sexist. If organizational decision makers witness others acting in a discriminatory manner with positive consequences, or acting in an egalitarian way with negative consequences, they can learn to become more discriminatory in their HR practices through observational learning (Bandura, 1977, 1986). So, organizational decision makers could engage in personal discrimination without being sexist if they perceive that the fair treatment of women in HR would encounter resistance given the broader organizational structures, processes, and practices promoting gender inequality. Yet over time, given cognitive dissonance (Festinger, 1962), it is likely that discriminatory behavior could induce attitude change among organizational decision makers to become more sexist.

Thus far we have argued that gender inequalities in organizational structures, processes, and practices, organizational decision makers' sexist attitudes, and gender discrimination in HR practices can have reciprocal, reinforcing relationships. Thus, it may appear that we have created a model that is closed and determinate in nature; however, this would be a misinterpretation. In the following section, we outline how organizations marked by gender inequalities can reduce discrimination against women.

How to Reduce Gender Discrimination in Organizations

The model we present for understanding gender discrimination in HR practices is complex. We believe that such complexity is necessary to accurately reflect the realities of organizational life. The model demonstrates that many sources of gender inequality are inter-related and have reciprocal effects. By implication, there are no simple or direct solutions to reduce gender discrimination in organizations. Rather, this complex problem requires multiple solutions. In fact, as discussed by Gelfand et al. (2007), if an organization attempts to correct discrimination in only one aspect of organizational structure, process, or practice, and not others, such change attempts will be ineffective due to mixed messages. Therefore, we outline below how organizations can reduce gender discrimination by focusing on (a) HR policies (i.e., diversity initiatives and family friendly policies) and closely related organizational structures, processes, and practices; (b) HR-related decision-making and enactment; as well as, (c) the organizational decision makers who engage in such actions.

Reducing Gender Discrimination in HR Policy and Associated Organizational Structures, Processes, and Practices

Organizations can take steps to mitigate discrimination in HR policies. As a first example, let us consider how an organization can develop, within its HR systems, diversity initiatives aimed at changing the composition of the workforce that includes policies to recruit, retain, and develop employees from underrepresented groups (Jayne and Dipboye, 2004). Diversity initiatives can operate like affirmative action programs in that organizations track and monitor (a) the number of qualified candidates from different groups (e.g., women vs. men) in a pool, and (b) the number of candidates from each group hired or promoted. When the proportion of candidates from a group successfully selected varies significantly from their proportion in the qualified pool then action, such as targeted recruitment efforts, needs to be taken.

Importantly, such efforts to increase diversity can be strengthened by other HR policies that reward managers, who select more diverse personnel, with bonuses (Jayne and Dipboye, 2004). Organizations that incorporate diversity-based criteria into their performance and promotion policies and offer meaningful incentives to managers to identify and develop successful female candidates for promotion are more likely to succeed in retaining and promoting diverse talent (Murphy and Cleveland, 1995; Cleveland et al., 2000). However, focusing on short-term narrowly defined criteria, such as increasing the number of women hired, without also focusing on candidates' merit and providing an adequate climate or support for women are unlikely to bring about any long-term change in diversity, and can have detrimental consequences for its intended beneficiaries (Heilman et al., 1992, 1997). Rather, to be successful, HR policies for diversity need to be supported by the other organizational structures, processes, and practices, such as strategy, leadership, and climate.

For instance, diversity initiatives should be linked to strategies to create a business case for diversity (Jayne and Dipboye, 2004). An organization with a strategy to market to more diverse populations can justify that a more diverse workforce can better serve potential clientele (Jayne and Dipboye, 2004). Alternatively, an organization that is attempting to innovate and grow might justify a corporate strategy to increase diversity on the grounds that diverse groups have multiple perspectives on a problem with the potential to generate more novel, creative solutions (van Knippenberg et al., 2004). Furthermore, organizational leaders must convey strong support for the HR policies for them to be successful (Rynes and Rosen, 1995). Given the same HR policy within an organization, leaders' personal attitudes toward the policy affects the discrimination levels found within their unit (Pryor, 1995; Pryor et al., 1995). Finally, diversity programs are more likely to succeed in multicultural organizations with strong climates for diversity (Elsass and Graves, 1997; Jayne and Dipboye, 2004). An organization's climate for diversity consists of employees' shared perceptions that the organization's structures, processes, and practices are committed to maintaining diversity and eliminating discrimination (Nishii and Raver, 2003; Gelfand et al., 2007).

In organizations where employees perceive a strong climate for diversity, diversity programs result in greater employee attraction and retention among women and minorities, at all levels of the organization (Cox and Blake, 1991; Martins and Parsons, 2007).

As a second example of how HR policies can mitigate gender inequalities, we discuss HR policies to lessen employees' experience of work-family conflict. Work-family conflict is a type of role conflict that workers experience when the demands (e.g., emotional, cognitive, time) of their work role interfere with the demands of their family role or vice versa (Greenhaus and Beutell, 1985). Work-family conflict has the negative consequences of increasing employee stress, illness-related absence, and desire to turnover (Grandey and Cropanzano, 1999). Importantly, women are more adversely affected by work-family conflict than men (Martins et al., 2002). Work-family conflict can be exacerbated by HR policies that evaluate employees based on face time (i.e., number of hours present at the office), as a proxy for organizational commitment (Perlow, 1995; Elsbach et al., 2010).

Formal family friendly HR policies can be adopted to relieve work-family conflict directly, which differentially assists women in the workplace. For instance, to reduce work-family conflict, organizations can implement HR policies such as flexible work arrangements, which involve flexible schedules, telecommuting, compressed work weeks, job-shares, and part-time work (Galinsky et al., 2008). In conjunction with other family friendly policies, such as the provision of childcare, elderly care, and paid maternity leave, organizations can work to reduce stress and improve the retention of working mothers (Burke, 2002).

Unfortunately, it has been found that the enactment of flexible work policies can still lead to discrimination. Organizational decision makers' sexism can lead them to grant more flexible work arrangements to white men than to women and other minorities because white men are seen as more valuable (Kelly and Kalev, 2006). To circumvent this, organizations need to formalize HR policies relating to flexible work arrangements (Kelly and Kalev, 2006). For instance, formal, written policies should articulate who can adopt flexible work arrangements (e.g., employees in specific divisions or with specific job roles) and what such arrangements look like (e.g., core work from 10 am to 3 pm with flexible work hours from 7 to 10 am or from 3 to 6 pm). When the details of such policies are formally laid out, organizational decision makers have less latitude and therefore less opportunity for discrimination in granting access to these arrangements.

To be successful, family friendly HR policies should be tied to other organizational structures, processes, and practices such as organizational strategy, leadership, culture, and climate. A business case for flexible work arrangements can be made because they attract and retain top-talent, which includes women (Baltes et al., 1999). Furthermore, organizational leaders must convey strong support for family friendly programs (Jayne and Dipboye, 2004). Leaders can help bolster the acceptance of family friendly policies through successive interactions, communications, visibility, and role modeling with employees.

For instance, a leader who sends emails at 2 o'clock in the morning is setting a different expectation of constant availability than a leader who never sends emails after 7:00 pm. Family friendly HR policies must also be supported by simultaneously changing the underlying organizational culture that promotes face time. Although it is difficult to change the culture of an organization, the leaders' of the organization play an influential role in instilling such change because the behaviors of leaders are antecedents and triggers of organizational culture (Kozlowski and Doherty, 1989; Ostroff et al., 2012). In summary, HR policies must be supported by other organizational structures, processes, and practices in order for these policies to be effective.

Adopting HR diversity initiative policies and family friendly policies can reduce gender discrimination and reshape the other organizational structures, processes, and practices and increase gender equality in them. Specifically, such policies, if successful, should increase the number of women in all departments and at all levels of an organization. Further, having more women in leadership positions signals to organizational members that the organization takes diversity seriously, affecting the diversity climate of the organization, and ultimately its culture (Konrad et al., 2010). Thus, particular HR policies can reduce gender inequalities in all of the other organizational structures, processes, and practices.

Reducing Gender Discrimination in HR-Related Decision-Making and Enactment

A wealth of research demonstrates that an effective means of reducing personal bias by organizational decision makers in HR practices is to develop HR policies that standardize and objectify performance data (e.g., Konrad and Linnehan, 1995; Reskin and McBrier, 2000). To reduce discrimination in personnel decisions (i.e., employee hiring and promotion decisions) a job analysis should be performed to determine the appropriate knowledge skills and abilities needed for specific positions (Fine and Cronshaw, 1999). This ensures that expectations about characteristics of the ideal employee for that position are based on accurate knowledge of the job and not gender stereotypes about the job (Welle and Heilman, 2005). To reduce discrimination in performance evaluations, HR policies should necessitate the use of reliable measures based on explicit objective performance expectations and apply these practices consistently across all worker evaluations (Bernardin et al., 1998; Ittner et al., 2003). Employees' performance should be evaluated using behaviorally anchored rating scales (Smith and Kendall, 1963) that allow supervisors to rate subordinates on examples of actual work behaviors. These evaluations should be done regularly, given that delays require retrieving memories of work performance and this process can be biased by gender stereotypes (Sanchez and De La Torre, 1996). Finally, if greater gender differences are found on selection tests than on performance evaluations, then the use of such biased selection tests needs to be revisited (Chung-Yan and Cronshaw, 2002). In summary, developing HR policies that standardize and objectify the process of employee/candidate evaluations can reduce personal bias in HR practices.

Importantly, the level of personal discrimination enacted by organizational decision makers can be reduced by formalizing HR policies, and by controlling the situations under which HR-related decisions are made. We have articulated how HR-related decisions involve social cognition and are therefore susceptible to biases introduced by the use of gender stereotypes. This can occur unwittingly by those who perceive themselves to be unprejudiced but who are affected by stereotypes or negative automatic associations nonetheless (Chugh, 2004; Son Hing et al., 2008). For instance, when HR policies do not rely on objective criteria, and the context for evaluation is ambiguous, organizational decision makers will draw on gender (and other) stereotypes to fill in the blanks when evaluating candidates (Heilman, 1995, 2001). Importantly, the context can be constructed in such a way as to reduce these biases. For instance, organizational decision makers will make less biased judgments of others if they have more time available to evaluate others, are less cognitively busy (Martell, 1991), have higher quality of information available about candidates, and are accountable for justifying their ratings and decisions (Kulik and Bainbridge, 2005; Roberson et al., 2007). Thus, if they have the time, motivation, and opportunity to make well-informed, more accurate judgments, then discrimination in performance ratings can be reduced.

Reducing Organizational Decision Makers' Sexism

Another means to reduce gender discrimination in HR-related decision-making and enactment is to focus directly on reducing the hostile and benevolent sexist beliefs of organizational decision makers. Interventions aimed at reducing these beliefs typically involve diversity training, such as a seminar, course, or workshop. Such training involves one or more sessions that involve interactive discussions, lectures, and practical assignments. During the training men and women are taught about sexism and how gender roles in society are socially constructed. Investigations have shown these workshop-based interventions are effective at reducing levels of hostile sexism but have inconsistent effects on benevolent sexism (Case, 2007; de Lemus et al., 2014). The subtle, and in some ways positive nature of benevolent sexism makes it difficult to confront and reduce using such interventions. However, levels of benevolent sexism are reduced when individuals are explicitly informed about the harmful implications of benevolent sexism (Becker and Swim, 2012). Unfortunately, these interventions have not been tested in organizational settings. So their efficacy in the field is unknown.

Conclusion

Gender inequality in organizations is a complex phenomenon that can be seen in HR practices (i.e., policies, decision-making, and their enactment) that affects the hiring, training, pay, and promotion of women. We propose that gender discrimination in HR-related decision-making and the enactment of HR practices stems from gender inequalities in broader organizational structures, processes, and practices, including HR policy but

also leadership, structure, strategy, culture, and organizational climate. Moreover, reciprocal effects should occur, such that discriminatory HR practices can perpetuate gender inequalities in organizational leadership, structure, strategy, culture, and climate. Organizational decision makers also play an important role in gender discrimination. We propose that personal discrimination in HR-related decisions and enactment arises from organizational decision makers' levels of hostile and benevolent sexism. While hostile sexism can lead to discrimination against women because of a desire to keep them from positions of power, benevolent sexism can lead to discrimination against women because of a desire to protect them. Finally, we propose that gender inequalities in organizational structures, processes, and practices affect organizational decision makers' sexism through attraction, selection, socialization, and attrition processes. Thus, a focus on organizational structure, processes, and practices is critical.

The model we have developed extends previous work by Gelfand et al. (2007) in a number of substantive ways. Gelfand et al. (2007) proposed that aspects of the organization, that is, structure, organizational culture, leadership, strategy, HR systems, and organizational climates, are all interrelated and may contribute to or attenuate discrimination (e.g., racism, sexism, ableism, homophobia). First, we differ from their work by emphasizing that workplace discrimination is most directly attributable to HR practices. Consequently, we emphasize how inequalities in other organizational structures, processes, and practices affect institutional discrimination in HR policy. Second, our model differs from that of Gelfand et al. (2007) in that we focus on the role of organizational decision makers in the enactment of HR policy. The attitudes of these decision makers toward specific groups of employees are critical. However, the nature of prejudice differs depending on the target group (Son Hing and Zanna, 2010). Therefore, we focus on one form of bias—sexism—in the workplace. Doing so, allows us to draw on more nuanced theories of prejudice, namely ambivalent sexism theory (Glick and Fiske, 1996). Thus, third, our model differs from the work of Gelfand et al. (2007) by considering how dual beliefs about women (i.e., hostile and benevolent beliefs) can contribute to different forms of gender discrimination in HR practices. Fourth, we differ from Gelfand et al. (2007) by reviewing how organizational decision makers' level of sexism within an organization is affected by organizational structures, processes, and practices via selection-attraction-attrition processes and through socialization processes.

However, the model we have developed is not meant to be exhaustive. There are multiple issues that we have not addressed but should be considered: what external factors feed into our model? What other links within the model might arise? What are the limits to its generalizability? What consequences derive from our model? How can change occur given a model that is largely recursive in nature? We focus on these issues throughout our conclusion.

In this paper, we have illustrated what we consider to be the dominant links in our model; however, additional links

are possible. First, we do not lay out the factors that feed into our model, such as government regulations, the economy, their competitors, and societal culture. In future work, one could analyze the broader context that organizations operate in, which influences its structures, processes, and practices, as well as its members. For instance, in societies marked by greater gender inequalities, the levels of hostile and benevolent sexism of organizational decision makers will be higher (Glick et al., 2000). Second, there is no link demonstrating how organizational decision makers who are more sexist have the capacity, even if they sit lower in the organizational hierarchy, to influence the amount of gender inequality in organizational structures, processes, and practices. It is possible for low-level managers or HR personnel who express more sexist sentiments to—through their own behavior—affect others' perceptions of the tolerance for discrimination in the workplace (Ford et al., 2001) and others' perceptions of the competence and hireability of female job candidates (Good and Rudman, 2010). Thus, organizational decision makers' levels of hostile and benevolent sexism can affect organizational climates, and potentially other organizational structures, processes, and practices. Third, it is possible that organizational structures, processes, and practices could moderate the link between organizational decision makers' sexist attitudes and their discriminatory behavior in HR practices. The ability of people to act in line with their attitudes depends on the strength of the constraints in the social situation and the broader context (Lewin, 1935, 1951). Thus, if organizational structures, processes, and practices clearly communicate the importance of gender equality then the discriminatory behavior of sexist organizational decision makers should be constrained. Accordingly, organizations should take steps to mitigate institutional discrimination by focusing on organizational structures, processes, and practices rather than focusing solely on reducing sexism in individual employees.

Our model does not consider how women's occupational status is affected by their preferences for gender-role-consistent careers and their childcare and family responsibilities, which perhaps should not be underestimated (e.g., Manne, 2001; Hakim, 2006; Ceci et al., 2009). In other words, lifestyle preferences could contribute to gender differences in the workplace. However, it is important to consider how women's agency in choosing occupations and managing work-life demands is constrained. Gender imbalances (e.g., in pay) in the workplace (e.g., Moss-Racusin et al., 2012; Sheltzer and Smith, 2014) and gender imbalances in the home (e.g., in domestic labor, childcare; Bianchi, 2000; Bianchi et al., 2000) shape the decisions that couples (when they consist of a woman and a man) make about how to manage dual careers. For instance, research has uncovered that women with professional degrees leave the labor force at roughly three times the rate of men (Baker, 2002). Women's decisions to interrupt their careers were difficult and were based on factors, such as workplace inflexibility, and their husbands' lack of domestic responsibilities, rather than a preference to stay at home with their children (Stone and Lovejoy, 2004). Thus, both factors inside and outside the workplace constrain and shape women's career decisions.

Our model is derived largely from research that has been conducted in male-dominated organizations; however, we speculate that it should hold for female-dominated organizations. There is evidence that tokenism does not work against men in terms of their promotion potential in female-dominated environments. Rather, there is some evidence for a glass-escalator effect for men in female-dominated fields, such as nursing, and social work (Williams, 1992). In addition, regardless of the gender composition of the workplace, men are advantaged, compared with women in terms of earnings and wage growth (Budig, 2002). Finally, even in female-dominated professions, segregation along gender lines occurs in organizational structure (Snyder and Green, 2008). Thus, the literature suggests that our model should hold for female-dominated environments.

Some might question if our model assumes that organizational decision makers enacting HR practices are men. It does not. There is evidence that decision makers who are women also discriminate against women (e.g., the Queen Bee phenomenon; Ellemers et al., 2004). Further, although men are higher in hostile sexism, compared with women (Glick et al., 1997, 2000), they are not necessarily higher in benevolent sexism (Glick et al., 2000). More importantly, the effects of hostile and benevolent sexism are not moderated by participant gender (Masser and Abrams, 2004; Salvaggio et al., 2009; Good and Rudman, 2010). Thus, those who are higher in hostile or benevolent sexism respond in a more discriminatory manner, regardless of whether they are men or women. Thus, organizational decision makers, regardless of their sex, should discriminate more against women in HR practices when they are higher in hostile or benevolent sexism.

In future work, the consequences of our model for women discriminated against in HR practices should be considered. The negative ramifications of sexism and discrimination on women are well known: physical and psychological stress, worse physical health (e.g., high blood pressure, ulcers, anxiety, depression; Goldenhar et al., 1998); lower job satisfaction, organizational commitment, and attachment to work (Murrell et al., 1995; Hicks-Clarke and Iles, 2000); lower feelings of power and prestige (Gutek et al., 1996); and performance decrements through stereotype threat (Spencer et al., 1999). However, how might these processes differ depending on the proximal cause of the discrimination?

Our model lays out two potential paths by which women might be discriminated against in HR practices: institutional discrimination stemming from organizational structures, processes, and practices and personal discrimination stemming from organizational decision makers' levels of sexism. In order for the potential stressor of stigmatization to lead to psychological and physical stress it must be seen as harmful and self-relevant (Son Hing, 2012). Thus, if institutional discrimination in organizational structures, processes, and practices are completely hidden then discrimination might not cause stress reactions associated with stigmatization because it may be too difficult for women to detect (Crosby et al., 1986; Major, 1994), and label as discrimination (Crosby, 1984; Stangor

et al., 2003). In contrast, women should be adversely affected by stigmatization in instances where gender discrimination in organizational structures, processes, and practices is more evident. For instance, greater perceptions of discrimination are associated with lower self-esteem in longitudinal studies (Schmitt et al., 2014).

It might appear that we have created a model, which is a closed system, with no opportunities to change an organization's trajectory: more unequal organizations will become more hierarchical, and more equal organizations will become more egalitarian. We do not believe this to be true. One potential impetus for organizations to become more egalitarian may be some great shock such as sex-based discrimination lawsuits that the organization either faces directly or sees its competitors suffer. Large corporations have been forced to settle claims of gender harassment and gender discrimination with payouts upward of \$21 million (Gilbert v. DaimlerChrysler Corp., 2004; LexisNexis, 2010; Velez, et al. v. Novartis Pharmaceuticals Corp, et al., 2010). Discrimination lawsuits are time consuming and costly (James and Wooten, 2006), resulting in lower shares, lower public perceptions, higher absenteeism, and higher turnover (Wright et al., 1995). Expensive lawsuits experienced either directly or indirectly should act as a big driver in the need for change.

Furthermore, individual women can work to avoid stigmatization. Women in the workplace are not simply passive targets of stereotyping processes. People belonging to stigmatized groups can engage in a variety of anti-stigmatization techniques, but their response options are constrained by the cultural repertoires available to them (Lamont and Mizrachi, 2012). In other words, an organization's culture will provide its members with a collective imaginary for how to behave. For instance, it might be unimaginable for a woman to file a complaint of sexual harassment if she knows that complaints are never taken seriously. Individuals do negotiate stigmatization processes; however, this is more likely when stigmatization is perceived as illegitimate and when they have the resources to do so (Major and Schmader, 2001). Thus, at an individual level, people engage in strategies to fight being discriminated against but these strategies are likely more constrained for those who are most stigmatized.

Finally, possibly the most efficacious way for organizational members (men and women) to challenge group-based inequality and to improve the status of women as a whole is to engage in collective action (e.g., participate in unions, sign petitions, organize social movements, recruit others to join a movement; Klandermans, 1997; Wright and Lubensky, 2009). People are most likely to engage in collective action when they perceive group differences as underserved or illegitimate (Wright, 2001). Such a sense of relative deprivation involves feelings of injustice and anger that prompt a desire for wide scale change (van Zomeren et al., 2008). Interestingly, people are more likely to experience relative deprivation when inequalities have begun to be lessened, and thus their legitimacy questioned (Crosby, 1984; Kawakami and Dion, 1993; Stangor et al., 2003). If organizational leaders respond to such demands for change by altering previously gender oppressive organizational structures,

processes, and practices, this can, in people's minds, open the door for additional changes. Therefore, changes to mitigate gender inequalities within any organizational structure, policy, or practice could start a cascade of transformations leading to a more equal organization for men and women.

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