Intellectual Humility and Self-Censorship in Higher Education; a thematic analysis

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Introduction: This article explores whether social science lecturers and postgraduate students perceive their experiences of university as supporting intellectual humility – a concept representing a disposition to rigorously consider opposing ideas to beliefs held in order to confirm the positive epistemic status (or truth) of ones' own beliefs.

Methods: Forty participants, consisting of twenty lecturers and twenty postgraduate students from the United Kingdom, took part in semi-structured interviews. The focus of these interviews was to explore whether their experiences in higher education align with the virtue of 'intellectual humility'.

Results: Through a thematic analysis, results showed that experiences of both lecturers and students did not support the traits of intellectual humility.

Discussion: Suggestions for future research are made. The themes identified in this study could be used as a framework for investigating differing contexts of higher education in terms of their reflection of intellectual humility. Further, suggestions for how intellectual humility can be practically facilitated in higher education are made.

KEYWORDS

intellectual humility, dialogue, self-censorship, thematic analysis, qualitative research, freedom of speech, higher education, controversial topics

1. Introduction

Increasing literature is suggesting that social science lecturers could be self-censoring their viewpoints in UK contexts of higher education, which in turn, could hinder intellectual humility in being aware of and challenging established beliefs and ideas (Inbar and Lammers, 2012; Grant et al., 2019; Karran et al., 2021). These studies warranted exploration as to whether intellectual humility is being hindered in the social sciences. I define intellectual humility, simpliciter, as 'accurately tracking the positive epistemic statuses of ones' own viewpoints' (Church and Samuelson, 2017, p. 6).

In this article I will present a qualitative study examining whether social science lecturers and postgraduate students perceive their university space as supporting the virtue of intellectual humility. The structure of this article will be as follows (1) conceptualize intellectual humility from a multi-disciplinary perspective (2) highlight the dialogic aspect of intellectual humility where ideas are given epistemic strength only through tension with alternatives (3) outline the justification of the study through literature suggesting that students and faculty are self-censoring their viewpoints in the social sciences, creating a lack of viewpoint diversity (4) map out my investigation on whether social science contexts of higher education in the United Kingdom reflect intellectual humility (5) present the results of the semi-structured interviews through a thematic analysis, discussing how responses contradicted the key conceptual traits of intellectual

humility. Finally, I will discuss implications for future research concerning intellectual humility in contexts of higher education.

1.1. Intellectual humility

Porter et al. (2022) conducted a systematic review of empirical intellectual humility research identifying 20 separate definitions; these primarily manifested from the disciplines of psychology and philosophy. One of the main themes from the definitions mapped intellectual humility as 'the virtuous mean between something like arrogance, on the one hand, and self-deprecation… on the other'; that is, one is not too arrogant regarding their beliefs or expertise, or too dismissive of their beliefs or expertise; instead, they attribute truth and justification of their beliefs as they ought (Church and Samuelson, 2017, p. 6; Porter et al., 2022). Both the philosophical and psychological literature from the Porter et al. (2022) review prominently reflected the neo-Aristotelian conceptualization of phronesis – namely, enacting truth and justification in the right amount and the appropriate circumstances (Wright et al., 2021; for psychological perspectives see Ng and Tay, 2020; Fowers et al., 2021). Additionally, a prominent theme among the definitions identified by Porter et al. (2022) reflected intellectual humility as a 'striking or unusual unconcern for social importance, and thus a kind of emotional insensitivity to issues of status' (Roberts and Wood, 2007, p. 272). In these conceptions, the possessor of intellectual humility is not necessarily unaware of their status, or social importance, but status is of no concern (Church and Samuelson, 2017). Yet by what standard does one attribute truth and justification to a belief as they 'ought', or to the 'appropriate' standard or circumstances, especially considering the different rules of generating epistemic strength across disciplinary domains? Further, how do these two prominent themes coincide; does attributing truth and justification conflict with not caring about social status? For example, defining intellectual humility centered on social status can result in outcomes where knowledgeable persons produce or allow untruthful representations of their knowledge to others. According to the Roberts and Wood (2003, 2007) account, a specialist in a particular topic may be encouraged to downplay their expertise by being intellectually humble, even if their knowledge should be attributed that expertise, due to an 'unusual concern for social importance'. To illustrate:

> A doctor does not care about social status, and thus underrepresents their ability to perform a difficult surgery to their colleagues. As the colleagues do not think the doctor is capable, the doctor is not contacted for that surgery in an emergency, and patients die needlessly.

In not caring for social status, the Doctor (in this hypothetical) provided a dishonest (or untruthful) self-representation of their relative ability to conduct the difficult surgery to the community of doctors. Therefore, intellectual humility cannot fundamentally be defined by a lack of caring of social status if it is to result in the truthful development of ideas (social status can play a role, but it cannot be a fundamental trait of the conception) (Church and Samuelson, 2017). Instead, I argue that definitions must conceptualize the virtue fundamentally as an 'other' oriented activity which is inherently communal (Porter and Schumann, 2018). Intellectual

humility must concern a communally truthful appraisal, and representation, of beliefs or viewpoints (Roberts and Wood, 2007; Hazlett, 2012; Church and Barrett, 2016; Kidd, 2016; Whitcomb et al., 2017; Tanesini, 2018). Therefore, a necessary addition to the current definitions of intellectual humility is that one can only accurately appraise and represent the strength of ideas relative to others if they are actively engaging with opposing viewpoints and ideas to their own. This reflection, I argue, is fundamental to any conception of intellectual humility; namely, the active engagement with differing and opposing ideas to accurately identify, and represent, the epistemic strength of one's belief. In this sense, the communal aspect of intellectual humility has a fundamental epistemic function which can be conceptualized dialogically (Ford and Wargo, 2012). Bakhtin (1986) defined dialogue as an idea constantly and conceptually being in tension with others. The tension, or the 'interanimation', provides an idea with meaning (p. 271). 'Meaning' can be defined dialogically through what Ford and Wargo (2012) articulated as the multiplicity of alternatives: that ones' arguments or beliefs are situated within alternatives, and it is from this diversity that ideas with relatively higher epistemic strength arise. Without an idea existing dialogically in tension with others, there is no way to identify an idea with relatively more epistemic strength than others. Through this reasoning, the community chooses which ideas are accepted through setting its own rules. In terms of the scientific community (for example), the social status of an idea should be equated with how strongly ones' arguments or beliefs are reflected in the evidence available based on the epistemological rules of verification in that community (e.g., the scientific method).

To further illustrate the prior reasoning, the definition that I will espouse can be partially introduced by Church and Samuelson (2017):

> Intellectual humility is the virtue of accurately tracking the positive epistemic status of one's own beliefs dialogically (p. 24).

This definition reframes the role of social status dialogically with an idea existing in tension within a community of alternative and differing ideas. It also more explicitly highlights the need to evaluate the truthfulness of beliefs relative to others, phrased as tracking the 'positive epistemic status' of one's beliefs. While Church and Samuelson (2017) do not provide a rigid criterion of what 'positive epistemic status' entails, I derive the meaning of the phrase 'accurately tracking the positive epistemic status' inherently with how I propose 'epistemic strength' can be conceptualized; the phrase is expressed in the present continuous tense, which indicates it is indicatively ongoing. The characterization of an ongoing process can serve as a derivation of dialogic meaning.

To illustrate, a specialist brain surgeon may hold the belief that their chosen method of surgery is the most informed for saving people's lives. However, they must constantly stay current with the latest medical discoveries to ensure that their belief in this method is in fact accurately reflecting the positive epistemic status that the doctor is attributing (that it can save lives). However, the Doctor will, ideally, never stop tracking the positive epistemic status of their belief relative to others because there is always the possibility of a more informed treatment being discovered. My argument, therefore, is that intellectual humility through 'tracking positive epistemic status', can inherently be conceptualized as an iterative process, characterized by a disposition to re-evaluate and revise

beliefs through consistently engaging with differing viewpoints (Damon and Colby, 2015). The tension of this process of reevaluation with ideas situated in tension with alternatives is the only way one can dialogically track the positive epistemic status of their own ideas relative to the epistemological rules of a particular community.

Further, the dialogic aspect of intellectual humility can be elucidated from Kuhn et al.'s (2000) evaluative stance. One accepts that there are multiple viewpoints, opinions, and beliefs, yet there is an objective dimension of knowing by acknowledging uncertainty without forsaking evaluation. While multiple perspectives are accepted to hold epistemic strength, it is always possible that other claims and alternative evidence could hold a higher level of epistemic strength, and therefore one must constantly engage with differing claims, evaluating their epistemic strength through how the claims are warranted through evidence or reasons in a more aligned manner to the rules of the community or domain (Brewer et al., 1998). In this sense, IH is not a position of boundless relativism; just because there are more informed epistemic positions in principle does not make all ideas equally epistemically valuable in practice. The reasoning is instead a recognition, in line with the theory of dialogue that the assignment of epistemic value is inherently unfinished (Sennett, 2012). Crucially, dialogue in this manner is not limited to talk or texts but concerns the general idea that the inter-animation of different perspectives can lead to mutual illumination (Bakhtin, 1986). This can be conducted internally (for example, through reading and considering differing viewpoints that have manifested in the past, present or future)or externally (for example, through debating or engaging in literal discussion with others in the present). Therefore, the modes of dialogue are fluid in their interpretation and practice with the common theme of furthering the epistemic strength of ideas through tension with differing alternatives. With this framing, tracking positive epistemic status through intellectual humility is inherently dialogic where 'knowledge' is fundamentally a product of dialogue in a community with agreed upon practices, norms and criteria (Ford and Wargo, 2012).

Subsequently, the final definition of intellectual humility that I espouse is the following:

> the virtue of accurately tracking the positive epistemic status of one's own beliefs in relation to alternatives, acknowledging that tracking positive epistemic status is a dialogic, iterative and continuous process of engaging and listening/giving attention to differing/opposing viewpoints, with intellectual humility being a disposition to do so.

Under this definition, the positive epistemic status of a claim or belief is a product of dialogue, where ideas exist in tension – ideas must be challenged with alternatives constantly to ensure that the positive epistemic status of those ideas is accurate relative to alternative ideas in relation to the rules of epistemological verification within that community. The definition situates ideas fluidly as 'interim' conclusions, always open to being improved, developed, or reconsidered within the confines of epistemological verification. However, in line with Kuhn et al. (2000) holding strong convictions on viewpoints can still manifest in relation to the rules of verification in the community, yet this is balanced with

established viewpoints always being open to improvement and development. In the next section, I will relate these concepts to the practical context of higher education in facilitating intellectual humility.

1.2. Higher education, viewpoint diversity, and self-censorship

How do Universities reflect a dialogic form of intellectual humility currently? Mercier and Sperber (2011) argue that persons are generally more effective at identifying the flaws in other people's evidence gathering than in their own, especially if others have dissimilar beliefs. Extensive literature has reflected that human beings are not effective at seeing the flaws in their own reasoning when they concern beliefs that are central to their own identity, e.g., beliefs that support a political belief that one holds (Nisbett and Wilson, 1977; Wilson and Brekke, 1994; Kahneman, 2011). Yet Lukianoff and Haidt (2018) argue that Universities, 'when working properly', are 'communities of scholars who cancel out' each other's instinctual biases toward their own ideas (p. 47). While professors/students may not be able to see the limitations of their own arguments, or evidence supporting beliefs, other professors/students can be effectively placed to identify such limitations (Sperber et al., 2010; Mercier and Sperber, 2011). The community of scholars then judges which ideas 'survive the debate' which, ideally, should be based on the positive epistemic strength of those ideas, and thus embody intellectual humility by facilitating all actors to track the positive epistemic status of their own beliefs within the multiplicity of alternatives according to the rules of verification of the community. This is a process Lukianoff and Haidt (2018) call 'institutionalized disconfirmation': the notion that the institution facilitates intellectual humility by giving the primary role of finding the limitations in ones' views to others in the institution; only by engaging others in a community of inquiry can one identify the most truthful elements of their arguments (or beliefs) by receiving scrutinization from those who are not as closely tied to the viewpoint (Mill, 1968). While Lukianoff and Haidht (2018) acknowledge that there is no guarantee that this system will always work perfectly 'the institution (the academy as a whole, or a discipline)' increases the chances that statements 'offered as a research finding – and certainly every peer reviewed article has survived a process of challenge and vetting' (p. 24).

However, the 'success' of institutionalized disconfirmation can be as deceiving as it is challenging because humans are notoriously incapable of identifying their own groupthink related biases, and have a 'strong tendency… to underestimate our liability to such biases' (Nisbett and Wilson, 1977; Wilson and Brekke, 1994; Kahneman, 2011; Church and Samuelson, 2017, p. 5). One exacerbating factor is the viewpoint diversity of those conducting the disconfirmation process in higher education. If the actors doing the disconfirming all share similar viewpoints, then instinctual biases could more prominently and significantly hinder the tracking of the positive epistemic status of ones' own viewpoints in relation to alternatives (Abramowitz et al., 1975). For example, along political classifications, various studies have indicated that there is a significant political disparity among educators in higher education. A study from Langbert et al. (2016) identified the registrations of a nationally representative sample of 7,243 Professors in 40 of America's 'leading' Universities,

inquiring as to whether they were registered Democrat or Republican across five subjects (listed below). Out of the 7,243:

> 3623 were registered as Democrat and 314 Republican, for an overall D:R ratio of 11.5 to 1. The D:R ratios for the five fields were: Economics 4.5 to 1, History 33.5 to 1, Journalism/Communications 20 to 1, Law 8.6 to 1, and Psychology 17.4 to 1.

These findings were reinforced in a study from Kaufmann (2021) utilizing 820 academics from the UK through YouGov (the most representative sample of the population of academics in the UK), 802 academics from the US, and 338 from North America (not representative); over half (53%) of the respondents described themselves as left-leaning with just over a third (35%) as centrist; only 9% were right-leaning.

However, 'Left' and 'Right" are broad distinctions with the potential for wide viewpoint variation within these groups, and unique specializations across disciplines. The diversity within those two broad umbrellas could potentially be sufficient for the disconfirmation process. However, a recent study from The Harvard Crimson's annual spring faculty survey show that 37 percent of the 1,100 professors polled indicate that their political views are "very liberal" – an increase of 8 % since last year. Forty-five percent of respondents characterize their political views as "liberal," while only 1 % indicate that their views are "conservative" and no faculty identify as "very conservative." Moreover, only 16 percent of Harvard faculty members classify their political views as "moderate" (Xu, 2022). Therefore, even when the groupings are more pronounced, there is evidence that the disparity is significantly one sided. Mill stated that 'he who knows only his own side of the case knows little of that', and the literature cited in this review indicates that human beings are not effective at seeing the flaws in their own reasoning when they concern beliefs that are central to their own identity (Nisbett and Wilson, 1977; Wilson and Brekke, 1994; Kahneman, 2011).

This consideration is especially prominent in the United Kingdom, being reflected in a study from Karran et al. (2021) carried out by the University and College Union. The authors analyzed two samples, one of 2000 UCU members (a representative sample). The study reflected that 35.5 percent of UCU members had refrained from discussing, teaching, or researching a particular topic for fear of negative repercussions, with both U.K. and EU countries being included in the study. Negative repercussions ranged from 23.1% (almost 1 in 4) of the UK respondents reporting being subjected to bullying (the comparable figure for the EU was 14.1%) to 26.6% of the UK cohort reporting being subjected to psychological pressure (EU =17.7%) to 35.5% of the UK cohort admitting to self-censorship, for fear of negative repercussions, such as loss of privileges, demotion or physical harm (EU = 19.1%). In this sense, negative repercussions extend beyond a caring for social status discussed in the previous section concerning intellectual humility, but border a form of coercion that hinders the overall dialogue of ideas required for intellectual humility to function. It is important to note that there was a perception of a decline in academic freedom among faculty and staff in both the U.K. and EU countries. However, the perceived decline in academic freedom was more pronounced within the U.K. participants than EU participants. These issues being prominent among the UK context were reinforced by studies from Inbar and Lammers (2012) and further from a study from the Policy Institute at King's College London

authored by Grant et al. (2019); the prior used a nationally representative sample of 2,153 students enrolled in a UK higher education course, and found that 24% of labour supporters, 22% of Liberal Democrat supporters and 20% of Green Party supporters reported feeling unable to express their views on campus, alongside 59 percent of Conservative supporting students. The reflected fear of sharing viewpoints highlights why the UK specifically is a pertinent context in regard to intellectual humility.

How could these disparities manifest practically in the context of higher education? Experimental field research has indicated significant bias in the selection process of studies for publication. Abramowitz et al. (1975) asked research psychologists to rate fictional publications in terms of their suitability for publication. The methods and analysis of these publications were held identical for all reviewers, but the result was varied experimentally to suggest one of two results; either that a group of left leaning political activists on a college campus were mentally healthier, or that they were less healthy, then a group of non-activists. When the results reflected that the activists on the left were healthier, reviewers who self-reported as more liberal rated the manuscript as more publishable, and the statistical analyses more rigorous, than the otherwise identical manuscript reflecting the different result. It is possible that this is occurring without intent, however, in a study from Inbar and Lammers (2012), most social psychologists openly stated they would discriminate. In their survey, they asked "If two job candidates (with equal qualifications) were to apply for an opening in your department, and you knew that one was politically quite conservative, do you think you would be inclined to vote for the more liberal one?" Of the 237 self-reported liberals, only 42 (18%) chose the lowest scale point, "not at all." In another sense, 82% admitted that they would be at least somewhat prejudiced against a conservative candidate, and 43% chose the midpoint ("somewhat") or above. Therefore, certain empirical research suggests that a lack of viewpoint diversity along political lines can have a hindering effect on the institutional disconfirmation process, and thus, hindering intellectual humility; this could be especially manifesting in the context of the UK. Students may not be exposed to a wide variety of viewpoints concerning consensus beliefs if the majority doing the scrutinizing have similar beliefs. This extends to self-censorship in course group discussions/lectures, to papers that are being published, and the research topics chosen or conducted.

To clarify, I am not arguing that left-leaning beliefs are incorrect; instead that all sides of the political spectrum will struggle in seeing the limitations of their own beliefs if they are being critiqued by those, in the significant majority, who also hold similar views to a certain extreme. If there is strong consensus among groups, there will be severe instinctual difficulty to identify flaws in ones' assumptions, especially when they are significantly linked to ones' conception of the self (Kaplan et al., 2016). Therefore, intellectual humility in higher education may be hindered through an incomplete consideration of the counter arguments and alternative considerations of viewpoints or beliefs held; if faculty self-censor from criticizing or revising viewpoints considered politically dominant, how will that person ever know their shortcomings especially if most of the faculty who are not self-censoring share their beliefs and assumptions, and thus are biased toward their significance?

1.3. Summary

The prior literature indicates that viewpoints in tension with other ideas dialogically is potentially problematic in contexts of higher education, where large percentages of faculty and students seem reluctant to share their views on topics that seemingly can cause personal damage. In this sense, the dialogic aspect of intellectual humility is hindered within higher education as only certain ideas are expressed. Ideas cannot exist in tension with others, and thus being given epistemic strength dialogically if limited alternatives are available to determine whether the dominant ideas are the most epistemically valuable. Further, dialogue is not limited to talk or texts but concerns the general idea that the inter-animation of different perspectives can lead to mutual illumination (Bakhtin, 1986). Yet, these issues could extend to the processes of peer review and funding for research ideas, where students/faculty may self-censor and choose more politically popular ideas for publications or funding (Abramowitz et al., 1975). If this potentially occurs, then there will be limited diversity of viewpoints to determine which ideas hold the most epistemic strength dialogically, the epistemic strength of which is revealed with ideas being in tension with alternatives. Therefore, my empirical work aimed to explore whether lecturers and students in the social sciences perceive intellectual humility to be supported in the university space in the manner of the definition espoused in this paper, and to explore whether self-censorship is a potential hindrance to intellectual humility in social science contexts of higher education in the UK.

2. Methodology

According to the incompatibility thesis, a limiting factor concerning choices of methods concerned the notion that ontological, epistemological, and methodological assumptions were all rigidly connected to a particular type or choice of method (either quantitative or qualitative), with these assumptions assumed to be rigid to the extent that they were 'antithetical' (Guba and Lincoln, 1989, p. 2). With the emergence of pragmatism, researchers began to dispute dichotomous philosophical representations of reality and the subsequent methodological restrictions that accompanied each, accepting that researchers could exist along the methodological continuum depending on the demands of their particular projects (Biesta, 2013). Pragmatism instead emphasized the 'dictatorship of the research question' where researchers could use quantitative, qualitative, multi or mixed methods if the research questions deemed those choices appropriate to producing informed knowledge (Tashakkori and Teddlie, 2003, p. 619). Despite this pragmatic freedom Creswell and Clark (2011, 2018) argues that certain types of research questions are more appropriately aligned to the use of particular methods. Research questions that indicate an exploration of perspectives may more appropriately suit a qualitative approach that conveys multiple perspectives and attempts to map the complexity of a phenomenon; whereas research questions that seek to understand the relationship among clearly defined variables may be more appropriate for quantitative analysis explicitly examining this relationship (p. 10).

I aimed to embody a pragmatic approach where the scope of my inquiry dictated the choices of method (Creswell, 2015). I conducted semi-structured interviews because they can be flexible enough to identify new information but provide a point with which to analyze if the researcher has a specific focus (May, 2012). My specific focus was formulated into the following research question:

> *RQ1*: Do social science lecturers' and students perceive their experiences of higher education as supporting the virtue of 'intellectual humility?

2.1. The interview schedule and piloting process

The piloting process involved five interviews with students (Arthur et al., 2016). Lecturer time was deemed too valuable for piloting and instead was reserved for recruitment in the primary stage of research. The process revealed that participants were initially reserved about discussing their experiences about their beliefs in detail, requiring an establishment of rapport to discuss these experiences [Spradley as cited by May (2012)]. I, therefore, included initial 'softball', 'descriptive' questions regarding the academic qualifications and interests of the participant which, in line with Spradley [as cited by May (2012)], overcame initial apprehension of the interview process, and simultaneously allowed the identification of demographic information. Additionally, the words 'intellectual' and 'humble' were all carrying a unique meaning to differing participants; the original interview schedule contained these terms in the questions. However, as I did not want participants to provide perspectives on differing conceptions of the terms to my own, I instead chose to form my interview schedule around the main/ crucial aspects of my definitions of the key concepts (De Vaus, 2001). Questions narrowed on an intellectual humility through my definitions' main attributes, e.g., encouraging a rigorous consideration of alternate or opposing views. The Supplementary material contains the interview schedule contains the final questions that were formulated; I explain the purpose of each question in how it is attempting to explore the key concepts according to how I defined them concerning participants' experiences of, and perspectives on, higher education (probing/ additional lines of questioning are also included) (De Vaus, 2001).

2.2. Thematic analysis, rigor, and positionality

Following from the previous sections, I wanted to choose a method of data analysis that reflected the complexity of the phenomena I was investigating and identify general patterns within experiences and perspectives to identify mediums that could be explored in future studies in differing contexts of higher education (Law, 2004). Additionally, I wished to determine whether the perspectives and experiences of higher education from interviewed lecturers were comparatively relevant to current perspectives and experiences of students. Due to these prior considerations, I chose to conduct a comparative thematic analysis underpinned by a 'process of

continuous meaning-making and progressive focusing' (Srivastana and Hopwood, 2009, para. 2). Braun and Clarke (2006) argue that:

> patterns, themes, and categories do not emerge on their own. They are driven by what the inquirer wants to know and how the inquirer interprets what the data are telling her or him according to subscribed theoretical frameworks (p. 77).

While Ozanne et al. (1992) present qualitative research in its purest form being completely inductive, patterns and themes do not 'emerge' from the data as if the researcher is a passive actor; the researcher takes an active role in interpretation (Braun and Clarke, 2006, p. 80). However, Durkheim stated there is a failure 'to penetrate the "inmost essence" of phenomena if the social scientist's preconceptions dominate the research' (Durkheim, 1982, p. 380). In response to the risk of 'domination' of preconceptions, I postulate that the relationship between data and researcher can be characterized and embodied dialogically.

To elucidate, Wegerif (2013) argues that the meaning of an idea is not given by that idea alone; instead, it can only be understood through the role in which it is a response to previous utterances and is trying to elicit and have an impact upon future utterances. Wegerif (2013) exemplifies by explaining:

> if a friend sends a text with a happy face emoji, the meaning of that text does not stand alone but depends on the previous message and also on how your friend might want you to respond (Wegerif, 2018, para. 4).

Therefore, in dialogic framing, meaning is only attributed to an idea by its role in a continuous dialogue which fundamentally requires the inter-animation of multiple perspectives. Applying this framing to the relationship between data and researcher, I argue that the perspectives of both researcher and data combine to form equally necessary parts of the same whole in creating meaning; this is because, dialogically, one without the other cannot produce 'meaning' (Bakhtin, 1986). Here, the dialogic is both an ontological and an epistemological postulation; that reality is only created by two perspectives in combination, and meaning is only produced in that reality as a result of two perspectives in combination, mutually illuminating knowledge (Wegerif, 2018). Crucially, however, if two perspectives form equal parts of the same whole in creating meaning, then the notion of one being dominant over the other in interpretation is contradictory to a dialogic relationship. Subsequently, I was heavily inspired by the six-step framework of thematic analysis from Braun and Clarke (2006) who propose a symbiotic relationship with the data; the researcher takes an active but not overly dominant role in interpretation through multiple, loop-like rounds of iteratively and rigorously questioning the inferences and comparisons drawn.

2.3. Coding process

Interviews were conducted *via* video call lasting 40 minutes to 3 hours and were recorded and translated to text with auto-transcribing software. Embodying step one and two of Braun and Clarke's (2006) framework, my initial aim was to familiarize myself with the data through correcting the auto-generated transcripts by relistening to each recording of the interviews. At this stage, I chose not to make thematic connections across interviews because I did not want themes generated excessively early in the process potentially dictating what I looked for in others (Braun and Clarke, 2006). Upon familiarizing myself with the data, I attempted to code each interview individually in the order that they were recorded, which mostly consisted of one lecturer followed by one student.

In terms of step three, interviews were then re-analyzed where I drew parallels between codes of interviews in the lecturer group, and interviews in the student group separately, which I then defined as themes. Themes were the broader parallels of codes that I had attributed when drawing ideas across interviews, in line with Creswell describing them as 'broad units of information that consist of several codes aggregated to form a common idea' (Creswell, 2013 p. 186; Elliott, 2018). Initially drawing themes across interviews of lecturers and students separately was to aid in identifying themes exclusive to each group as a more explicit frame of comparison between groups. Following this, I analyzed themes across groups (lecturers and students), identifying thematic similarities and differences within themes between the groups for narrower, focused comparisons. Finally, step four and five concerned an iterative process of refining the themes and the codes forming the themes. This translated in practice to a constant cycle of relistening to recordings (to ensure I had not misread interpretations in my eagerness to formulate themes), reviewing codes assigned, and revising the interpretation of the raw data to the codes, and subsequent themes. In attempting a dialogic relationship with the data, I guarded against having an overly dominant relationship of interpretation. One way this practically translated was a constant guarding against merely putting quotes together to form a theme that reflected the usefulness of my chosen concepts, but that was not thematically represented by the sample (Braun and Clarke, 2006). There were two key-ways this manifested practically. Firstly, as is recommended by Saldaña (2013), I created an Annotated Codebook detailing the full structure and formulation of the themes organized by 'a full definition; an explanation of when to use and when not to use the theme (in further research); and illustrated with a quotation from the data'; this was motivated by the desire 'to provide greater structure, transparency and, most importantly, evidence of depth in the analysis'(para. 12). Creating the codebook was additionally motivated by the framing of saturation as 'conceptual rigor' postulated by Nelson (2016) and Saldaña (2013). Therefore, a theme was not included unless it could reflect the conceptual depth and appropriate representativeness of the sample from which it was formulated, where transparency through the codebook would equal accountability of depth (and can be viewed in the Supplementary material). Secondly, in line with Braun et al. (2013), a theme was not formulated unless the codes forming it represented the views of around two thirds of the total sample (calculated as twenty-six participants for themes across groups, and thirteen participants for themes exclusive to either lecturers or students); in the results section, I number how many participants from each group (and from each discipline) commented to form the theme. The analytic approach to the

experiential 'objectivity' of the data drew partially from a critical realist framework; in this sense, I acknowledge (as did many participants) that they were portraying 'stories' regarding their experiences (Sims Schouten et al., 2007). I evaluated socially produced meanings with the underpinning that these have a certain relationship to material or experiential reality for participants (Braun et al., 2013) Therefore, participants' responses and sentiments were real for them but theorized as stemming from socially available meanings, rather than embodying a self-evident or inherently 'objective', verifiable reality. As a result, I examined data from the semantic as opposed to the latent level; this meant I interpreted language as having a significant relationship to cause, effect, and meaning (Braun and Clarke, 2006). The latent level, which I did not pursue, 'starts to identify or examine the underlying ideas, assumptions…and ideologies that are theorized as shaping or informing the semantic content of the data' (Braun and Clarke, 2006, p. 83). I deemed myself too biased toward 'proving' the usefulness of the concepts to examine underlying ideas at the latent level and predicted I would contradict the dialogic relationship to the data undertaking this, thus committing solely to semantic analysis.

While this was not a fully representative reflection, I attempted to relay certain considerations of my coding approach, trying to embody the sentiments of Trainor and Graue (2014) highlighting how honest, clear presentation of the research process provides an accurate reflection of its rigor, referred to as 'interpretive transparency' (para. 19).

2.4. Sampling method

Utilizing convenience sampling, the two fundamental requirements were for lecturers to have achieved a lectureship position and to have at least 3 years of experience as a lecturer and as a published researcher. For students, the requirement was to be studying at Postgraduate level to have experiences of higher education to draw from at the level of undergraduate or previous postgraduate qualifications. A total of 40 participants (20 students and 20 lecturers) studying or teaching social science topics were interviewed. In terms of demographics, 12 of the lecturers taught/lectured on Philosophy, four in Education, two in Anthropology and two in Critical Literacy. Of the students, 10 studied Education related degrees, six Political Science, and four in Economics. Of the lecturers, 12 were women and 8 men; of the students, 12 were men and 8 were women. All lecturers taught at a Russell Group institution in the UK, and all students had studied and were currently studying at a Russell Group institution. All participants, during the interviews, reflected left-leaning political viewpoints.

2.5. Ethical considerations

My research received ethical approval from the appropriate ethics committee of the affiliated institution. I constantly invited participants throughout the interview to inspect my interpretation of their account, asking them to expand or revise my interpretations (Reason and Bradbury, 2012). I also constantly reassured participants that any personal experiences they shared could be removed upon asking and that accounts would be generalized to remove any unique identifying factors, as well as securely encrypted.

3. Results

3.1. Theme one: the changing of beliefs

'Beliefs changing' was interpreted in both lecturers (18) and students (16) with notable differences between the groups concerning the nature of this change. Lecturers generally reflected a gradual changing of belief from more extreme to less extreme, and gradual but complete changes in beliefs. For example, three philosophy lecturers believed in God but gradually became atheists; another philosophy lecturer became open to the idea of believing in God originally being an atheist. Other lecturers (Philosophy and Education) identified with the 'hard-left' or were 'strictly conservative' but softened their views through reading 'how a society was structured' and becoming 'more pluralistic'. With students, however, many portrayed a confirmatory nature to their changes in beliefs. For example, one Education postgraduate student was a Christian but joined a religious society, which motivated her to act on her faith; another Political Science student joined a society representing a political party which strengthened her resolve to engage in activism. The comments from students concerning confirmations of beliefs were also generally linked to an action in those beliefs becoming stronger motivated students to act, mainly through political activism. A social group also was mentioned almost always alongside the discussion of how beliefs became confirmed for students, and subsequently stronger.

There was also a difference of approach to the absolute truth (or positive epistemic status) of beliefs. The vast majority of lecturers described a realization that there was much more that needed to be learnt which resulted in them approaching their beliefs with less certainty. One Anthropology lecturer articulated this through experience:

> I was stunned right to the end of my undergraduate degree by going into a book shop and discovering this book entitled Cultural Studies. I thought I'd done a degree in Anthropology, which is about culture but it hadn't mentioned Cultural studies, so it just blew me away that my own beliefs were so undercut by that point by thinking I'd study something I'd actually missed out hugely on other disciplines of knowledge. There was so much more to learn and acquire.

However, many lecturers described students they had taught as commonly being too strongly committed to their beliefs. For example, the Anthropology lecturer stated he had students who were too attached to particular models; one example was a student who felt his model of critical thinking was 'the' model'. He tried to get him to consider alternatives and contradictions, but the student persisted in the model being the most superior; eventually he did not stay for a doctorate at the institution with the lecturer commenting: 'I also could not write him a good reference because he wasn't open to a broader discussion. He had the one guru of critical thinking who he thought was the be all and end all'.

3.2. Theme two: differing approaches to disagreement

I interpreted differing approaches to disagreement by both lecturers and students. In terms of the lecturers, they seemed to embrace disagreement (16) as being productive to identifying more informed truths; one Philosophy lecturer stated that the explicit goal of their teaching was to 'curate a sense that there's real pleasure in being questioned and receiving large objections'.

Further to this, lecturers overwhelmingly stated that fundamental to the notion of an idea is for it to be challenged, with one Philosophy lecturer articulating:

> I get students to see if their ideas can stand up to questioning, you know, like John Stuart Mill's principle that even a true opinion, if you just keep repeating it and don't challenge or question it, then it becomes and turns into dogma. True opinions to remain true opinions need to be exposed to the oxygen of query and questioning.

Another Philosophy lecturer stated that teaching without friction and challenge is 'impossible', because the 'the history of thoughts is such that you know there really is diversity of opinion on almost any topic' Stemming from the challenging of ideas being fundamental to an idea itself, eight of the philosophy lecturers all mentioned the principle of charity, where the goal is to 'disagree with you as meaningfully as possible, but to do so without impugning your character… with the best possible effort to disagree with the best possible version of your argument'. Another in relation to the principle said, 'shutting down the weakest version of arguments is boring and does not advance knowledge'. Five of the philosophy professors believed that first-and second-year students are not capable of applying the principle of charity.

However, I interpreted resistance and disliking to disagreement from students based on general descriptions of other classmates and accounts from the interviewed students themselves (16). A representative example was articulated from one Education student, in describing her own postgraduate class:

> Steven (pseudonym) invited this guy Benjamin to our lectures every week, and he had very different opposed views to everyone. I strongly disagreed with him but people were so fierce. This person was just someone who supported the opposite party to everyone else. It's like his little comments made the whole class furious and that's what made me stand backwards, I was annoyed at my class. We need to pull ourselves together. Like letting your whole self-get so worked up and not being able to stand up in conversation is not gonna work.

3.3. Theme three: shift of approach to student beliefs in social science higher education

The vast majority (16) of lecturers reported that their undergraduate and postgraduate experience of academic culture in the UK was excessively harsh concerning personal beliefs, so

much so to the point where it was described as 'bullying' and 'sexist. The Anthropology lecturer discussed how when he was a young academic trying innovative critical teaching methods, a senior academic told him 'it's all rubbish' and 'you cannot be serious'. He described this certain academic as being a 'tyrant', and others generally described them as bullies, where academics would seek to strike fear in their students, stating that 'belief is one of those words that could cover all sorts of sins'. Another academic in Critical Literacy said the Russell Group institution she attended prided itself on being very 'blokey' and no nonsense to the point that mocking was common:

> Academics would often mock things, none of this kind of philosophizing differing beliefs. For example, immediately you would read the name Foucault and there would be jokes about what it rhymes with.

Another Philosophy academic mentioned how her supervisor told her that all feminist scholarship was 'game-playing'. When she asked him for evidence concerning this view through academic papers, he reacted harshly. Another Philosophy lecturer described her supervisor as being 'extremely sexist, racist and horrible' with the goal of offending others, and not much care for convincing others of his point of view, only 'imposing' it. Others commented on a discussion dynamic that centered on 'tearing down the speaker', with one supervisor having the goal in each seminar to 'reduce the speaker to tears if possible'.

Conversely, there seemed to be an apparent shift in the harshness with which the beliefs of students now, generally, are seemingly not challenged at all; I interpreted this theme as prominent from both students (14) and academics (16). Two Education students described academics as being 'timid and scared'; another Education student stated they were afraid to 'offer their own position through fear of offending other students'. Six Education students stated that relativism was excessively imposed concerning beliefs and ideas generally: as one articulated 'It was repeated in your head that everything is relative to the point where you feel like if you do not believe it's relative, you are this crazy madman person or really uneducated'.

There was also a common description of lecturers saying colleagues were afraid to discuss certain topics or provide their own position, with two examples from a lecturer in Philosophy and in Education being:

> In the last few years people have become more worried about subjects, people say 'look there are certain topics that I don't even discuss', because they say they might get fired, you know, so it's better to avoid it completely.

> Look, my class 10 years ago would have touched upon this issue. Now they say let us avoid it completely, because you know, it's too controversial and everything you say can be used from one side or another against you. When academia becomes replaced by ideology things become more complicated.

Academics singled out various topics (such as transgender policy debates) where they would refuse to moderate debates,

answer questions, or involve themselves in entirely. There was also recognition from lecturers that the precarious nature of academic employment means that including controversial issues in taught content is excessively risky. One lecturer described a situation where she wanted to challenge someone who had made a comment that she knew was incorrect, however, according to her perspective:

> I also know if a student goes and has a complaint then it's terrible, sometimes life changing, for us academics. We are in a more precarious situation than the students so it's very difficult.

Another Education lecturer commented that bringing content into the learning environment 'that's not mainstream or makes people uncomfortable' runs 'the risk of being reported… or you being perceived as something you are not'. Finally, the Anthropologist articulated those academics are often 'teased for being radical only when they are tenured', jokingly referring to the precarity of discussing topics that could threaten their employment unless they have tenured security.

3.4. Theme four: constant struggle between a safe space and a comfortable space

A significant degree of lecturers (16) mentioned the constant struggle between a space that is safe, and one that allows all views and opinions to be discussed, critiqued, and evaluated in higher education. Most mentioning this struggle were against the notion of a 'blanket' safe space in seminars where certain ideas should not be discussed, yet they acknowledged that it is vital students are 'prepared' to hear certain views considered controversial. There was agreement among lecturers that certain students are not ready to engage with certain content, and that background knowledge of the students should always be considered in determining which content could potentially be delayed or removed. One explicit example was that of a student who approached a lecturer and stated that he wanted to commit suicide. After referring the student to the relevant authorities, the lecturer articulated:

> That's why though my general principle is no no platforms, open up the world to everything let it all, you know, discuss everything, read everything, there have to be certain exceptions and you have to be a bit sensitive to the dynamic of your group, or what some particular person in your group you sort of feel they can manage. I have certainly, on occasions, edited bits and cut, you know literally quite deliberately steered the conversation away from things like suicide if I thought it was going to be too difficult for somebody.

Another Philosophy lecturer made a 'distinction between critiquing views and simply knowing that differing views exist', mentioning students who grew up in Jehovah's witness households, stating that 'one has to be incredibly mindful… that they… are having everything they thought they knew and believed all their lives questioned' and in some cases 'it's simply knowing the stuff is out there'.

3.5. Theme five: neoliberal forces inhibiting the challenging of deeply held beliefs

Many lecturers and half of the students (27) were extremely critical of the neoliberal influence on higher education. A number of students were critical of the excessively competitive nature of higher education, articulating that they always felt in competition with one another during exchanges because you are 'applying for a PHD grant and you are essentially always competing with other amazing students'. Four lecturers in Anthropology and Philosophy also criticized student unions for excessively competitive practices by inviting controversial speakers to 'prop up their own student careers'. I interpreted these sentiments as expressing a dynamic making it burdensome for people to acknowledge gaps in their reasoning and engage in progressing knowledge together, instead looking to best the other. In terms of the lecturers, one Education lecturer commented that they are 'forced to give this image that they know everything because of precarious employment, where you might not get tenure if you aren't valuable enough'. Another in Education commented that lecturers are forced to constantly 'resell' themselves and must be 'better than everyone else to survive'.

A point directly on humility was linked to tenure and status, where it was argued that only those who can afford to be humble in secure academic employment can be; as one Philosophy academic articulated:

> The more open-minded people that I met were superstars in academia because they know they are the best Nobel Prize lab and so they know they're fantastic. And they say, oh, maybe I'm wrong, and they're happy because they have nothing to lose. If your status is a bit precarious then you can't. So, paradoxically, you have to be very confident to be humble, that is my impression.

Additionally, the marketisation of higher education was interpreted as a major hindrance for lecturers concerning delving into the personal stories and experiences that shaped individual beliefs. One Philosophy lecturer stated that 'marketisation leads to a type of interaction between teacher and student that makes it incredibly difficult to have relatively egalitarian horizontal relations where the object is the inquiry itself… the model erodes the possibility of meaningful communities of inquiries emerging in higher education'.

Another Education lecturer was openly critical of her department prioritizing 'bums on seats' at the expense of being able to provide content that was more student centered; the process was described as 'making the student the consumer'. She also commented that, in her department, 'teaching assistants are overwhelmed' and she'd been told that 'nobody reads the personal statements of the 300 people joining a course' because 'you'll get in anyway because you are bringing in £16,000'; in her department there was 'no room for the personal'.

4. Discussion

I conceptualized intellectual humility as:

> the virtue of accurately tracking the positive epistemic status of one's own beliefs in relation to alternatives, acknowledging that tracking positive epistemic status is a dialogic, iterative and

continuous process of engaging and listening/giving attention to differing/opposing viewpoints, with intellectual humility being a disposition to do so.

Arguably, based on my sample, experiences of higher education could potentially be navigating a degree of students toward comfort, safety, and complacency in that ones' own ideas do not require dialogic verification within a community of ideas in tension, and are somehow confirmed to the point that the only missing element of consideration is how to act on a belief. One lecturer stated that 'the history of thoughts is such that… there really is a diversity of opinions on almost any topic'. If one were to, in a narrow historical fashion, trace the history of thought to the Ancient Greeks, that would account for 2,500 years' worth of 'thoughts', of 'diversity', and of opinion. The scale of a thought being placed within the broader existence of inquiry was reflected in the sentiment of a lecturer who entered a book shop and realized various disciplines were stemming from his degree he had not even encountered; despite specializing in a particular subject, his beliefs were 'undercut' by the realization that there is so much more to learn. It is potentially contradictory to intellectual humility for a degree of students that the only gap they feel exists concerning their beliefs, placed within the extensive history of thought, is the knowledge of how to most appropriately act on ones' belief.

Lecturers highlighted the fundamental role of disagreement to the notion of an idea, with one commenting that 'true opinions to remain true need to be exposed to the oxygen of query and questioning'. The precise choice of the word 'oxygen' reflected the general attitude of lecturers that ideas demand scrutiny to live and breathe. Like surgery or exercise, the process may not be comfortable, and in some cases extremely disconcerting, but necessary to the very life of an 'idea' or a 'belief' that it must withstand scrutiny for it not to become 'dogma'. If dogma were defined as beliefs that were not rigorously scrutinised in relation to alternatives, would it be too extreme a postulation that higher education, in not facilitating a rigorous consideration of alternative beliefs, is potentially complicit in the facilitation of dogma?

Yet the term complicit implies that someone is to blame; that there is a narrow manner with which to identify or diagnose the culprit and adjust through some precisely produced solution. Conversely to this characterization, there was a description of lecturers battling forces they could not control; they argued that the forces of neoliberalism and the narrow scope of market 'value' had permeated the experience of higher education; excessive marketisation had consumed the possibility of a 'relatively egalitarian horizontal relation where the object is the inquiry itself' eroding' the possibility of meaningful communities of inquiries emerging in higher education'. Exchanges in contexts of higher education were generally described as closet, proxy contests of furthering one's own or institutions agenda. Excessive competitiveness spread to student interactions, such as those working in unions who were described as inviting controversial speakers to prop up their union careers, and students claiming their peers could not admit fault or error because they were competing for grants and places. The excessively competitive nature of higher education contradicts my conception of intellectual humility as the disposition to seek more truthful ideas is placed underneath the desire for personal and institutional gain. This prioritization can lead to a lack of scrutiny of ideas in a dialogic community.

Marketisation also linked with the characterization of higher education as a 'mechanical practice' with the product of the

mechanism being prestige and revenue for the department or institution. One lecturer criticized her department for prioritizing 'bums on seats'; class sizes were mentioned as so excessively large that students would not have the chance to share their own beliefs, let alone consider alternatives. Considering lecturers stated that certain students are from households where they do not know the existence of alternative beliefs, how is the possibility that they will be unable to share their belief (due to excessively large class sizes) going to facilitate a rigorous consideration of alternatives? Could it be that the notion of 'value' moving the compass of institutional and departmental action is excessively dominated by neoliberalism, and the facilitation of rigorously considering alternative beliefs is incompatible with this dominance?

There was an apparent, overarching atmosphere of fear, though it was characterized more as an unwritten law which, if broken, resulted in potentially life-changing employment termination and reputational damage. Students described lecturers as 'timid' and 'scared'; lecturers described topics that they would not touch through fear of having their employment and lives significantly changed through complaint; they described the fear of being labeled something that they were not if they introduced content 'that wasn't mainstream'. How can a student hope to rigorously consider alternative viewpoints if those who should be facilitating this process do not feel close to the safety required to merely bring up a topic, let alone facilitate rigorous critique? Perhaps the comparison to intellectual humility falls before it can begin to limp; if lecturers are afraid, how can such a virtue ever be embodied? Throughout history, truthful development of beliefs and fear of the social consequences have been mutually incompatible; Galileo was threatened with the instruments of torture and put under house arrest by people who refused to look through his telescope as merely one example of fear inhibiting intellectual progress (Blackwell, 1991). The presence of fear both explicitly enforced and implicitly known through the underlying threat of employment or reputation will be hindrances to identifying which ideas are the most epistemically valuable dialogically in tension with others, contradicting intellectual humility.

Yet it was noted that the danger of ideas in the wrong hands (or heads) is a reasonable consideration in higher education; lecturers stated certain students come from households where their entire worldview was never questioned, where the mere existence of another view was not known. The oxygen of inquiry for ideas and beliefs was non-existent because ideas did not breathe in this sense; they quite simply had never been challenged. It was noted that a degree of students, especially with mental health struggles, required extra care in participating in the dialogic community of alternative ideas in tension. Lecturers described walking a tightrope requiring a delicate, precise balance between a safe space (one where ideas are removed for the wellbeing of students) and a comfortable space (one where ideas that challenge students' beliefs are presented when they are deemed ready). Yet how can lecturers expect to walk this challenging, ever-changing tightrope while having the potential of reputational damage and employment threat lurking? Is it more likely, as the lecturers reported, that they would simply leave deeply disputed topics alone?

In drawing holistic, concluding remarks; overall, the perspectives of lecturers and students (concerning their contexts of higher education) reflected a lack of embodiment of intellectual humility; most responses overwhelmingly described hindrances to rigorously considering alternative viewpoints to deeply held beliefs dialogically

in order to identify those that are epistemically valuable. It seemed that higher education could be an embodiment of intellectual humility. However, the description of forces beyond the control of the lecturer and student (such as the marketisation of higher education) indicated that the embodiment of intellectual humility would require a largescale, cultural disinclination to the neoliberal 'marketisation' and self-censorship perceived to be permeating the experience of social science higher education (Goddard and Payne, 2013).

4.1. Practical considerations

I will discuss certain practical considerations of intellectual humility in relation to higher education drawing from the themes identified in the study. These suggestions will primarily concern the institutional production and availability of differing and opposing viewpoints through higher education required to accurately track the positive epistemic status of ones' own beliefs. These considerations are not intended to be an exhaustive literature review but provide an opining starting point for further investigation into how intellectual humility could be more dialogically and practically facilitated in higher education.

Acknowledging that the depth of consideration of diverse viewpoints is unknown, there should be a consideration of how viewpoint diversity must be facilitated in higher education. I primarily discussed how a lack of political viewpoint diversity could be influencing the institutional practices of higher education. Yet viewpoints range from religious, political, methods-choices (quantitative and qualitative) to any other grouping where there are disputes. It is not possible for departments to hire a faculty body that is representative of the limitless viewpoint diversity that exists within a discipline, and generally across disciplines. Further, one may argue that it is not needed for faculty and students to believe diverse views, instead that diverse views can be taught and considered by those who do not necessarily believe them.

However, Mill (1968) famously argued that it is not enough that someone should hear the arguments of adversaries from his own teachers, presented as they state them, and accompanied by what they offer as refutations. This is not the way to do justice to the arguments. Instead 'one must be able to hear them from persons who actually believe them; who defend them in earnest, and do their very utmost for them' (p. 36). Mill was arguing that one who does not truly believe certain viewpoints cannot represent them fairly and accurately. While Mill did not have access to the broad literature on instinctual biases, his argument seems to logically follow that if one is biased toward supporting their own viewpoints, especially on disputed topics concerning deeply held beliefs, that they will (unconsciously or without malice) misrepresent the epistemic strength of opposing views, and thus, hinder the tracking of the positive epistemic status of beliefs, for themselves and others. Regardless, there is various literature that supports this assertion. For example, Perkins et al. (2000) utilized a sample of various ages and education levels. He asked them to think about social issues (such as whether providing students more funding would improve the quality of teaching/learning). He further asked participants to write down their initial judgment, then to think about the issue and write all the reasons they could think of – both for and against – that were relevant to reaching their final answer. After the participants finished, Perkins et al. (2000) scored

each reason as either a 'my-side' or an 'other-side' argument. It was found that the more advanced level of education a participant had attained, the more reasons they provided. However, when Perkins et al. (2000) compared fourth year-students in high school, university, or graduate school to first year students in the same institutions, there was little difference in the ratio of myside to other side arguments. Further, Perkins et al. (2000) found that IQ was the main predictor of the number of myside arguments – that is, arguments that supported ones' own point of view. He argued that 'people invest their IQ in buttressing their own case rather than in exploring the entire issue more fully and even-handedly'. As Lukianoff and Haidt (2018) argues, if thinking is confirmatory rather than exploratory in these 'dry and easy' cases, or in other words, cases that take place in a lab which are more abstract from their social consequence, 'then what chance is there that people will think in an open-minded, exploratory way when self-interest, social identity and strong emotions make them want or even need to reach a pre-ordained conclusion? (p. 105)'.

Additionally, a study from Westen et al. (2006) indicated that those of the opposing political side (conservative or liberal in this study) were more effective at identifying logical inconsistencies in arguments made by the opposing side, and less effective at identifying inconsistencies in their own arguments. Further, there has been a wealth of literature on how viewpoint diversity among groups can lead to higher quality group decisions; the dissent caused due to the diversity of views leads to more extensive criticality concerning ones' own beliefs (Moscovici and Personnaz, 1976; Nemeth, 1995; Nemeth et al., 2001; Crisp and Turner, 2011). Further evidence to suggest that politically diverse teams can produce more innovative solutions in comparison to politically homogeneous teams on issues such as "how can a person of average talent achieve fame" or how to raise funding for a partially completed church that is now ineligible for bank funding (Triandis et al., 1965). The pairs in this study that consisted of one conservative and one liberal were deemed to foster more creative solutions than the liberal-liberal or conservative-conservative groups. However, as a caveat, the issues in this study did not concern deeply disputed topics, and thus, it may have been the case that if these mixed groups were discussing deeply disputed issues, disagreement of the pairs would have polarized hindering the formulation of creative solutions. Despite this caveat, there is an abundance of evidence that viewpoint diversity can result in innovative solutions to a variety of issues (Mannix and Neale, 2005; Crano, 2012). Further, there are a degree of social scientists who have gone to the extreme in portraying the problem solving benefits of viewpoint diversity as a 'necessary logico-mathematical truth, not just a contingent empirical one' (Page, 2008; Duarte et al., 2015, p. 8). In short, there is a wealth of literature indicating that tracking of the positive epistemic status of ones' beliefs can only benefit from viewpoints that challenge accepted beliefs, which can only improve the knowledge base available to both students and faculty.

What practical policies could encourage the iterative and continuous engagement with differing and opposing beliefs through viewpoint diversity? The first concerns *ad-hoc* peer reviewers. It was suggested by Duarte et al. (2015) that peer review boards could have *ad-hoc* reviews of content that is overly susceptible to bias (namely, viewpoints or research that involves deeply disputed topics). For example, if a peer review board is seemingly accepting a vast majority of papers that are skewed to one political side, they could appoint *ad-hoc* reviewers of differing political backgrounds to give second opinions. Having *ad-hoc* reviewers may reveal insights that a biased mind toward

beliefs may not identify. I primarily discussed political bias, but this can extend to any variety of deeply held belief. Certain review boards may fundamentally support quantitative research, and thus, be extremely biased toward reducing the significance of rigor of qualitative studies. Further, quantitative researchers may be unable to see the limitations of their models if only being reviewed by fellow quantitative researchers. Having *ad-hoc* reviewers with a wide variety of perspectives could potentially lead to deeper insights, and more accurate assessments of the epistemic strength of ones' research; further, it could mean that more diverse research reaches publication, and therefore, increases the chances of students tracking the positive epistemic status of their beliefs with wider availability of diverse views. It is important to emphasize that further research is needed regarding *ad-hoc* reviewers; they could cause gridlock in the publication process as opposed to bipartisan or cooperative results. However, it is a pertinent area practical consideration regarding intellectual humility and higher education that requires further research and debate.

The second suggestion is to reframe faculty and student recruitment practices that go beyond demographic diversity and extend to viewpoint diversity. Demographic diversity can be crucial to counter against past discrimination of certain groups, and in academic contexts, to create a more representative, diverse body. Yet, while demographic diversity can most definitely encourage viewpoint diversity, it is not necessarily a given. If a demographically diverse student or faculty body all believe the same views on deeply disputed topics, intellectual humility may be being hindered, and students may not be able to track the positive epistemic status of their beliefs in relation to alternative, opposing ideas. In fact, a demographically diverse faculty or student body who all hold the same political, economic and social beliefs may arbitrarily appear to foster viewpoint diversity but hindering it in an illusory fashion; it should not be assumed that one logically follows the other.

The third suggestion concerns an embracing of adversarial research (Duarte et al., 2015). Departments could encourage faculty (and students) with different deeply held beliefs to collaborate on research projects (Diaconis, 1991). While this will be far from straightforward practically (especially considering the potential for gridlock concerning beliefs that are central to ones' identity), adversarial collaborations can potentially lead to a cancelation of persons' biases; further, they model to the wider student body that common ground and cooperation is possible concerning deeply disputed topics (Mellers et al., 2001). If intellectual humility is about tracking the positive epistemic status of a belief, but certain viewpoints or groups have been written off as being incompatible with ones' own beliefs, then demonstrating that collaboration is possible, alongside demonstrating how collaboration can identify gaps and biases in ones' views, could contribute to an intellectually humble environment being modeled for students' higher education, in the hope that they would potentially mimic this ideal. While further research is needed as to whether there are common practices that improve the chances of adversarial research being fruitful, Tetlock and Mitchell (2009) discussed what described as 'rough sociology of science diagnostics' for judging whether adversarial research can succeed or fail. According to Tetlock and Mitchell (2009):

> Adversarial collaboration is most feasible when least needed: when the clashing camps have advanced testable theories, subscribe to common canons for testing those theories, and disagreements are robust but respectful. And adversarial

collaboration is least feasible when most needed: when the scientific community lacks clear criteria for falsifying points of view, disagrees on key methodological issues, relies on second-or third-best substitute methods for testing causality, and is fractured into opposing camps that engage in *ad hominem* posturing and that have intimate ties to political actors who see any concession as weakness. calls the former community as "epistemic Heaven" the latter "epistemic hell" and maintains […] that if adversarial collaboration is indeed unnecessary in heaven and impossible in hell, we should expect the greatest expected returns in the "murky middle" in which theory-testing conditions are less than ideal but not yet hopeless' (p. 54).

These comments indicate that adversarial research may be impossible where it could be most effective (concerning deeply disputed topics). Further research is needed to identify general conditions that potentially could be practiced in varying contexts of dispute in adversarial research, acknowledging this will be an arduous line of inquiry.

Fourthly, there are pertinent implications with academic freedom and intellectual humility. It goes without saying that the tracking of positive epistemic status through iterative and continuous process of engaging, listening/giving attention, and preparedness to enter into differing/opposing viewpoints fundamentally requires academic freedom to an extent. A full discussion of the various debates and definitions of academic freedom are beyond the scope of this essay; therefore, I will approach the topic generally in relation to practical considerations for intellectual humility. Two broad underpinnings of academic freedom in relation to intellectual humility are: academics should have all the rights of free speech which is enshrined in the law as other citizens (Ben-Porath, 2017) and that academics may require extra protection to challenge to question deeply held beliefs that are considered common wisdom without the fear that the will lose employment or other position privileges (AAUP, 2014). These two conditions are not straight forward because laws develop and change according to intellectual progress; one can only examine how morally reprehensible acts such as slavery and segregation were enshrined in law; if academics were unable to speak against these laws, or challenge the pseudo-science that claimed inferiority of minorities, how would that have been appropriate to intellectual progress, and appropriate to any conception of intellectual humility? Further, while academics should be given extra freedom to challenge views, that should not mean that they are not held accountable for morally reprehensible viewpoints. Yet, simultaneously, they must be able to inquire, research, and question without fear of being held 'accountable' for merely questioning views considered orthodoxy. It goes without saying that self-censorship and fear of engaging in controversial issues will be detrimental to intellectual inquiry in this regard.

4.2. Limitations

A significant concept concerning rigor and limitations in qualitative research is 'saturation defined by Nelson (2016) as 'conceptual density/depth', where themes and codes are 'sufficiently' supported by interview data to allow the researcher to theorize and draw inferences (para. 5). However, the term has

also been defined as the assurance that further data collection would yield 'similar results and serve to confirm emerging themes and conclusions (Faulkner and Trotter, 2017). Higher education in the social sciences is a multi-faceted, complex context, with numerous disciplinary differences and approaches within universities and disciplines. Despite my study achieving conceptual density in terms of saturation, I could not be certain that further data collection would yield differing themes/codes that contradicted or made thematic additions pertinent to the embodiment of intellectual humility. In investigating samples of different demographics and making comparisons between disciplines (and other characteristics) more pertinent, generalizable themes could have been revealed that nuanced (or perhaps contradicted) the findings from my sample.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Ethics statement

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

Author contributions

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

Conflict of interest

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

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Supplementary material

The Supplementary material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/feduc.2023.1066519/full#supplementary-material

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