

**Social Class and Wellbeing among Staff and Students in Higher Education Settings:  
Mapping the Problem and Exploring Underlying Mechanisms**

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*In Press*

*Journal of Applied Social Psychology*

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The data that support the findings of this study are openly available from OSF at <http://doi.org/10.17605/OSF.IO/RZEAM>. This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors. We have no known conflicts of interest to disclose. We carried out data collection in accordance with recommendations of the British Psychology Society Code of Ethics and Conduct. All participants provided written informed consent as per the Declaration of Helsinki. The studies and protocols were approved by the Ethics Committee of the Department of Psychology, Durham University.

### **Abstract**

Within Higher Education (HE), staff and students from lower social class backgrounds often experience poorer wellbeing than their higher social class counterparts. Previous research conducted outside educational contexts has linked social class differences in wellbeing with differences in the extent to which low and high social class individuals feel respected (*i.e.*, status), in control (*i.e.*, autonomy), and connected with others (*i.e.*, inclusion). However, to our knowledge, there has been no research that has investigated those psychosocial needs within HE settings. Furthermore, inclusion, status and autonomy are correlated, yet little is known about how these psychosocial needs contribute to wellbeing simultaneously, and independently, of one another. To fill these gaps, we report the results of two studies; firstly with HE students (Study 1;  $N = 305$ ), and secondly with HE staff (Study 2;  $N = 261$ ). Consistently across studies, reports of poor wellbeing were relatively common and more than twice as prevalent amongst lower social class staff and students compared to higher social class staff and students. Inclusion, status and autonomy each made a unique contribution and accounted for the relationship between social class and wellbeing (fully amongst students, and partially amongst staff members). These relationships held across various operationalisations of social class and when examining a range of facets of wellbeing. Social class along with inclusion, status and autonomy explained a substantial 40% of the variance in wellbeing. The present research contributes to the literature exploring how social class intersects with psychosocial needs to impact the wellbeing of staff and students within HE.

*Keywords:* social class, wellbeing, Higher Education, status, autonomy, inclusion

## **Social Class and Wellbeing among Staff and Students in Higher Education**

### **Settings: Mapping the Problem and Exploring Underlying Mechanisms**

For both staff and students within UK Higher Education (HE), wellbeing – an index of both physical and mental health - is notoriously poor. Amongst UK-based University staff, around half (49%) experience high levels of psychological distress and are at risk of psychological illness. This exceeds the proportion found within other professional groups in the population generally (around 22%), and is comparable with those recently made unemployed (52%; see Kinman et al., 2006). Numerous studies converge in concluding that University staff face high levels of stress and burnout, and low levels of job satisfaction (for a review see Guthrie et al., 2017; Kinman & Wray, 2013; Padilla & Thompson, 2016; Shin & Jung, 2014; Tytherleigh et al., 2007; Watts & Robertson, 2011). Amongst University students, wellbeing does not seem to be much better. More than one-fifth of UK students (22%) have at least one current mental health diagnosis, and more than one-third (34%) have experienced a serious psychological issue for which they needed professional help (Eisenberg et al., 2007; El Ansari et al., 2011; Pereira et al., 2019). Similarly to University staff, wellbeing amongst students has been suggested to be worse than other sections of the population (Neale et al., 2016; Stallman, 2010). It has been argued that students may be at a heightened risk for psychological difficulties given their vulnerable age, coupled with University-specific triggers such as stress, anxiety, financial difficulties, and loneliness (Pereira et al., 2019).

Although wellbeing within HE is poor overall, some of those involved in HE either as staff or students will be at greater risk of poor wellbeing than others. For example, students taking courses with a strong vocational element such as nursing or social work appear to be at greater risk than students pursuing other courses (Pryjmachuk & Richards, 2007; Reeve et al., 2013; Tobin & Carson, 1994). As discussed below, an additional risk factor that is often

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overlooked but thought to impact wellbeing, is staff and students' position in society; their social class.

### **Social Class and Wellbeing**

Social class is a complex construct associated with hierarchical societal ranking. In line with previous research, we define social class as one's overall societal status that is primarily measured by indices of income, educational attainment, and occupational status (Kraus et al., 2019). However, as a construct, social class also encompasses measures of social and cultural capital (Bourdieu, 1986). Social capital includes the social networks available to a person, and cultural capital includes knowledge of and familiarity with the cultural practices of the dominant culture (see Bourdieu, 1986; Day et al., 2014; Kraus et al., 2011). Together, the dimensions of social class create an influential cultural identity that pervades many aspects of our lives (Kraus et al., 2011).

A robust relationship exists between social class and wellbeing, whereby lower class individuals are likely to have poorer wellbeing in comparison to their higher class counterparts (see Adler et al., 1994; Arber et al., 2014; Zell et al., 2018). This pattern is reflected in both physical aspects of health—from incidence of cardiovascular conditions (Tang et al., 2016), to diabetes (Borschuk & Everhart, 2015), to chronic kidney disease (Zeng et al., 2018); as well as in psychological aspects of wellbeing—from depression (Generaal et al., 2019), to anxiety (Remes et al., 2015), to suicide (ONS, 2016). Generally, higher class individuals tend to enjoy longer, healthier lives (Kröger et al., 2015).

Quantitative research on social class and wellbeing in HE settings usually focuses on students. Perhaps unsurprisingly, and in line with research conducted outside of HE, this research suggests that students from lower class backgrounds are more at-risk of depression (Ibrahim et al., 2013; Steptoe et al., 2007), and are more likely to have lower life satisfaction,

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face financial stress, and leave university (Neale et al., 2016). Qualitative studies reach similar conclusions, indicating that lower class staff and students experience HE profoundly differently to their higher class counterparts (e.g. Binns, 2019; Walpole, 2003). For example, attending university affords lower class staff and students increased status which can complicate family relationships, and can leave lower class individuals feeling like they are caught between two social worlds but are part of neither (Grimes & Morris, 1997). Second, lower class staff and students have to work harder to compensate for a lack of cultural and social capital that higher class students have gained at home, and, by and large, from attending better schools. Finally, for students, lower class individuals generally have less financial support so they often also need to maintain employment throughout their studies. As a result they have less 'free time', spend less time studying, and are generally less involved in key social groups and extracurricular activities around the University (Haney, 2015; Walpole, 2003). These examples illustrate how experiences of HE can be influenced by social class.

### **Theoretical Underpinnings**

To understand how the lived experiences of participants in HE differs depending on their social class background, we draw on theories of need fulfilment. Ryff and Keyes (1995) argued that six distinct dimensions of wellness need to be fulfilled in order for an individual to be positively functioning, or 'flourishing'. These dimensions are autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. Similarly, Ryan and Deci (2000) proposed a similar set of 'basic needs' in their Self-Determination Theory. They suggest that competence, autonomy and relatedness must be satisfied for an individual to experience an ongoing sense of wellbeing. A large-scale survey of participants from 123 countries around the world examining the association between the fulfilment of needs and subjective wellbeing found that need fulfilment was consistently

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associated with subjective wellbeing across world regions (Tay & Diener, 2011). However, in regressions, autonomy, social relatedness, and respect emerged as the only needs alongside basic needs for food and shelter that accounted for differences in well-being. This suggests that the fulfilment of autonomy, social relatedness, and respect needs may be particularly consequential in affecting wellbeing. In what follows, we discuss what we know about the link between autonomy, inclusion (a social relatedness need) and status (a respect-based need) on the one hand, and social class and wellbeing on the other.

### *Autonomy*

Autonomy, also referred to as a sense of personal control, is a construct that reflects whether life outcomes are decided by an individual, or by something external to an individual (Keeton et al., 2008). At one end of the continuum, high autonomy is the belief that one can and does master, control, and shape one's own life. At the opposite end of the continuum, low autonomy is perceived powerlessness and the belief that one's life is shaped by external forces, such as luck, chance, fate, or powerful other beings (Keeton et al., 2008; Legault, 2016).

An extensive body of research suggests that an elevated sense of autonomy can positively impact both mental and physical wellbeing (Gerstorff et al., 2014; Infurna et al., 2011; Lachman, 1986; Lachman & Weaver, 1998; Rodin, 1986). Similar findings have been reported within HE. For both staff and students, increased autonomy has been associated with increased work and life satisfaction, improved wellbeing, and reduced stress (Ibrahim et al., 2013; Kinman & Wray, 2013; Leinbaugh et al., 2003; Macan et al., 1990; Shin & Jung, 2014; Steptoe et al., 2007).

Research exploring whether autonomy varies by social class suggests that lower classes tend to have a diminished sense of autonomy compared to higher classes (Christie &

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Barling, 2009; Kraus et al., 2009; Lachman & Weaver, 1998). This reduced sense of autonomy has profound negative consequences on wellbeing, and has been found to explain, at least in part, social class variation in wellbeing (González et al., 2014; Johnson & Krueger, 2005; Moore et al., 2010). In a striking demonstration of the enduring nature of this relationship, Turiano and colleagues (2014) reported that perceived autonomy partially explained social class differences in mortality risk assessed over a decade later.

Existing research has tied autonomy to wellbeing in HE staff and students, and has linked social class to autonomy, however to our knowledge currently there is no research in HE settings that has pulled these elements together. That is, there is no research that has explored the relationship between social class, autonomy, and wellbeing within HE.

### ***Inclusion***

Inclusion is founded on social liking and acceptance (Anderson et al., 2015; Mahadevan et al., 2019). The desire to feel socially included is thought to be fundamental to humans (Baumeister & Leary, 1995), with profound consequences on wellbeing for those that feel excluded or lonely (Erlangsen et al., 2020). Loneliness has been associated with a breadth of mental health outcomes, including personality disorders, psychoses and depressive symptoms (Hawkley & Cacioppo, 2010; House et al., 1988). Further, research has indicated that the detrimental impact of loneliness also extends to physical health; increasing rates of morbidity and mortality (Hawkley & Cacioppo, 2010; Holt-Lunstad et al., 2010). Conversely, positive social contact, such as social contact with friends, has been linked to improved psychological wellbeing (Hefner & Eisenberg, 2009; Kawachi & Berkman, 2001), and is thought to protect against self-harm and suicide (Erlangsen et al., 2020).

Within society, prevalence of loneliness varies by social class. Individuals from lower classes more often report feeling socially isolated, and are more likely to have smaller social

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networks, than those from higher classes (Ajrouch et al., 2005; Samuel et al., 2018). Tying this to research on wellbeing, we see that inclusion partially explains the relationship between social class and wellbeing (Di Domenico & Fournier, 2014; González et al., 2014; Vonneilich et al., 2012).

To consider this relationship within HE, a longitudinal study carried out with students has suggested a similar link between social class, inclusion and wellbeing. Student social class positively predicted social contact with friends, and feelings of inclusion at University, and further, this predicted subsequent mental wellbeing (Rubin et al., 2016). Whilst this research with students provides a useful indication, it remains unclear as to whether this relationship also emerges amongst HE staff.

### *Status*

Status is defined as the respect and admiration afforded to an individual (Anderson et al., 2015; Mahadevan et al., 2019). Although similar in name, status is distinct from socioeconomic status (SES). Whilst SES can be determined objectively through measures of education, occupation and/or income, status is grounded in subjective perceptions and evaluations of an individual (Anderson, Kraus, et al., 2012). In the same vein, status is also distinct from social class. Social class tends to endure across generations, whilst status is context dependent and is defined with reference to a particular relationship or group (Anderson et al., 2015; Rubin et al., 2014). However, social class can act as a source of status given that the main attributes of social class - financial success, education and prestigious occupation - are socially valued in Western societies. In this way, individuals with higher class may also be afforded high status (Anderson et al., 2015).

Status has been found to consistently predict variations in wellbeing (Anderson, Kraus, et al., 2012). This finding remained true in research employing participants from



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numerous countries around the world; subjective wellbeing consistently depended on the degree to which people felt respected by others (Tay & Diener, 2011).

Within HE, the high social reputation of academics in society was, and likely still is, a source of job satisfaction (Shin & Jung, 2014). Further, there has been general concern among academics that their perceived status is declining in both their organisations, and society in general (Kinman et al., 2006). Given the research discussed above that links status to wellbeing, this perceived reduction in status experienced by academics could be impacting wellbeing. However, to our knowledge, no studies thus far have explored the link between status and wellbeing amongst HE staff members. Further, we currently know little about the contributions of social class to the perceived status and wellbeing of HE students.

### **The Present Research**

The fulfilment of autonomy, inclusion and status needs is crucial to the wellbeing of individuals around the world (Tay & Diener, 2011), but the precise relationship between these factors and social class remains unclear. Some studies have pointed to inclusion and autonomy as parallel mediators in the relationship between social class and wellbeing (see Di Domenico & Fournier, 2014; González et al., 2014), while other studies have highlighted status as a key variable mediating this relationship (Wingen et al., 2020; Yu & Blader, 2019). This raises questions about the relative contribution of each psychosocial need as they are all fundamentally related: status and inclusion overlap in that high status individuals are less likely to feel lonely, and more likely to have positive social contact, than low status individuals (Ayalon, 2019; Rubin et al., 2016); status and autonomy overlap in that individuals with higher status generally have greater sense of control, and greater influence among others (Cheng et al., 2013); and inclusion and autonomy overlap in that feeling related to another individual whilst maintaining autonomy is an important part of successful social

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relationships (Kluwer et al., 2019). In other words, we do not know if, say, inclusion is the key variable that underpins the role of status in mediating the link between social class and wellbeing. The same rationale can be applied to all needs discussed here. To address the question of confounds and unique contributions, research is needed that investigates status, autonomy, and inclusion simultaneously, as parallel mediators.

Second, the majority of research considering social class has been conducted within the US (e.g. Kraus & Stephens, 2012; Piff et al., 2010). Prior research has criticised the assumed generalisability of psychological findings (Henrich et al., 2010), and further, has proposed that psychological research focuses too narrowly on people living in the US (Arnett, 2016). Since the USA is the largest producer of psychological research, the vast majority of participants are American, and theories and ideas informed by this research are often, erroneously, assumed to be universal (Sue, 1999). For this reason, it is vital that knowledge of the issues surrounding social class is expanded to become less American-centric, and includes research from other countries.

Finally, as noted earlier existing research exploring social class within HE is limited. The vast majority of this research is qualitative, and aside from a handful of studies with HE students, quantitative research in this area is remarkably lacking. Whilst qualitative research has made an incredibly valuable contribution to the field of social class in HE (e.g. Binns, 2019; Lee, 2017; Walpole, 2003), the lack of quantitative methods has resulted in little research examining the mechanisms that underpin the relationship between social class and wellbeing in HE settings. Notable exceptions are studies with HE students that have independently pointed to the role of autonomy (Ibrahim et al., 2013) and inclusion (Rubin et al., 2016; Rubin & Kelly, 2015) as mediators. To our knowledge, there is no research that has explored status, autonomy and inclusion simultaneously. Further, and more generally, there is

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a real lack of quantitative research with HE staff members, leading to a poor understanding of the implications of social class on their wellbeing.

Since the 1980s, the university sector in the UK has changed considerably through a gradual process of marketisation and reform (Brown, 2015). It has been argued that this has increased the scope of the academic role and the demands associated with each aspect of the job. This has eroded traditional benefits associated with an academic career such as status and autonomy and is thought to contribute to the poor wellbeing we see amongst UK university staff as they are under pressure to be “doing more with less” (Erickson et al., 2020; Kinman, 2014).

In recent years, UK Governments have identified ‘widening access’ as a key priority for the HE sector (Evans et al., 2017). Whilst patterns of participation are improving, rates of non-completion remain markedly higher among lower class students (Crawford, 2014; Universities UK, 2018), and those with poor wellbeing (Neale et al., 2016). Given that the lower classes are underrepresented as students, coupled with the impact of students that ‘drop out’, it is perhaps unsurprising that lower classes are also underrepresented among University staff (Lee, 2017). As a result, lower class staff and students continue to be disadvantaged by salient and persistent class inequalities, as middle-class institutional norms prevail within HE (Connor et al., 2001; Haney, 2015; Jury et al., 2017; Soria et al., 2013; Stephens et al., 2014). Understanding lower class staff and students’ experiences within the UK, and the psychosocial needs that are detrimental to their wellbeing in HE settings are an important first step towards increasing equality.

Below, we report research that takes an exploratory look at the mechanisms that facilitate or impede the impact of social class on wellbeing. Across two studies, we adopt a needs fulfilment perspective and investigate the parallel role of autonomy, status and

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inclusion among both HE students and staff (cf. Tay & Diener, 2011). We were careful to capture aspects of social class that go beyond the typical narrow definition focused on income, education and occupation, by incorporating measures of social and cultural capital. We reasoned that a broader concept of social class could be valuable in HE to capture aspects of social behaviour and interpersonal experiences that either promote or impede wellbeing, and thus better explain disparities evident between the social classes. Furthermore, we used a range of measures to comprehensively capture wellbeing. Mental wellness is thought to be a state in which individuals are flourishing with high levels of emotional, psychological and cognitive wellbeing (Friedli, 2009; Keyes, 2002), and consists of two dimensions; hedonism and eudaimonism. Prior research considering mental wellbeing has largely only explored hedonic wellbeing; defining wellbeing in terms of happiness, pleasure attainment and pain avoidance. The eudaimonic approach focuses on meaning and self-realisation, and defines wellbeing in terms of engagement, fulfilment and sense of purpose in life (Keyes, 2002; Ryan & Deci, 2001). In the current research, we capture both eudaimonic and hedonic aspects of wellbeing, alongside resilience, physical health, and overall mental wellbeing to ascertain their relative relationship with social class.

### **Study 1**

Study 1 explored the extent to which differences in autonomy, inclusion and status account for the link between social class and wellbeing among HE students.

#### **Method**

##### ***Participants***

Durham University students were recruited for Study 1. Recruitment was conducted online between February and April 2020, using an undergraduate participant pool to capture Psychology students completing studies for course credit. Additionally, students outside of the Department of Psychology were recruited via social media posts. These students could

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enter into a prize draw to win shopping vouchers (up to £50) as compensation for their time.

We aimed to recruit 250 participants given the stability of effect sizes as samples approach this size (Schönbrodt & Perugini, 2013). Overall, of the 391 participants that started the survey and were eligible to take part, 316 (81%) completed the survey. Excluding a further 11 participants (3%) who failed a pre-planned attention check resulted in a final sample of 305. Participant demographic characteristics are reported in Table 1. The mean age of participants was 20.86 years ( $SD = 3.01$ ).

**Table 1**

*Demographic characteristics of Study 1 participants (University Students,  $N = 305$ ).*

Characteristic	<i>N</i>	Percent
Gender		
Male	35	11.5
Female	265	86.9
Neither male nor female	4	1.3
Did not disclose	1	0.3
Ethnicity		
White	246	80.7
Asian or Asian British	36	11.8
Mixed or Multiple Ethnic Groups	16	5.2
All Other Ethnic Groups	7	2.3
Parental Education		
None	6	2.0
High School	66	21.6
University	211	69.2
Other	12	3.9
Did not disclose	10	3.3
Recruitment Method		
Psychology Participant Pool	109	35.7
Social Media	196	64.3

### ***Procedure***

The study received ethical approval from Durham University Department of Psychology Ethics Sub-committee and was pre-registered using AsPredicted ([aspredicted.org/blind.php?x=6q8z7t](https://aspredicted.org/blind.php?x=6q8z7t)). The questionnaire was administered online using the Qualtrics platform ([www.qualtrics.com](http://www.qualtrics.com)).

### ***Materials***

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All participants first completed informed consent, demographic items, created a unique participant ID, and were asked to confirm their student status at the university. Following this, the presentation of the remaining scales was randomised, as was the presentation of the items within each scale. The wellbeing and social class scales were either presented first or last in the questionnaire. An attention check appeared in a random location in the survey flow. See Online Supplementary Materials for the complete questionnaire (<http://doi.org/10.17605/OSF.IO/RZEAM>). Cronbach's Alpha for each scale is reported below in the Results section.

**Demographic Characteristics.** The following were recorded: age, gender, ethnicity, total household income of family home, highest educational qualification of parent/guardian, and occupational status of the Chief Income Earner in the household (Oguz et al., 2013). In line with previous research (Adler et al., 2000; Callan et al., 2016; Piff et al., 2010), and to facilitate the presentation of the results, the latter three variables were standardised and averaged to provide an index of objective SES.

### **Social Class.**

***Social Class Ladder.*** Similar to prior research (Kraus et al., 2009), we assessed social class subjectively using a ladder-based question (Adler & Stewart, 2007). Because participants were students, we asked them to indicate where they felt they stood on the ladder in terms of their *family's* money, education and occupational prestige, rather than their own. Each rung of the ladder was given a number between 1 and 10, with higher numbers indicating higher social class.

***Social Class Capital.*** To explore how we could better capture the social and cultural aspects of social class, we created a short scale of three questions. Participants were asked how they feel they compare to other students in terms of economic, social and cultural capital. Economic capital was defined as income, savings, value of your home and your

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wealth. Social capital was defined as the number of people you know and the status of those people. Cultural capital was defined as the extent and nature of your cultural interests, activities and hobbies. Participants recorded their response using a slider scale from 0 (lowest capital) to 100 (highest capital).

**Status.** We assessed status using an 8-item questionnaire developed by Mahadevan et al. (2019). The scale began with the stem “Most of the time I feel like people...” Participants were asked to indicate the extent to which they agreed or disagreed with the following statements “respect my achievements”, “value my opinions and ideas”, “think highly of my abilities and talents”, “admire me”, “consider me a success”, “look up to me”, “see me as an important person”, and “consider me a high status individual”. Responses were recorded on a scale ranging from 1 (strongly disagree) to 7 (strongly agree).

**Inclusion.** This was assessed using a 9-item scale developed by Mahadevan et al. (2019), and the scale also began with the stem “Most of the time I feel like people...” Participants indicated the extent they think others “like me as a person”, “feel warmly towards me”, “consider me a nice person to have around”, “don’t like me”, “include me in their social activities”, “are happy for me to belong to their social groups”, “accept me”, “see me as fitting in”, and “would be willing to be friends with me” (1 = strongly disagree; 7 = strongly agree).

**Autonomy.** Participants were asked the extent to which they agreed with 4 items measuring their sense of control, adapted from the Personal Sense of Power Scale (Anderson, John, et al., 2012); “I feel I have great control over my life”, “I have great influence on my fate”, “There are few things in my life I cannot influence”, and “Things that are happening in my life are not a coincidence” (1 = strongly disagree; 7 = strongly agree).

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**Wellbeing.** This scale comprised 10 items gauging different aspects of health and wellbeing. Unless stated otherwise, the wellbeing measures were assessed using scales that ranged from 0 (not at all) to 10 (completely).

***Hedonic Wellbeing.*** We used the hedonic measure of subjective wellbeing used by the Office for National Statistics (ONS, 2018); “overall, how satisfied are you with your life nowadays?”, “overall, to what extent do you feel that the things you do in your life are worthwhile?”, “overall, how happy did you feel yesterday?”, and “overall, how anxious did you feel yesterday?”

***Eudaimonic Wellbeing.*** Two items were adapted from the Questionnaire for Eudaimonic Well-Being (Waterman et al., 2010); “overall, do you feel that you have found your purpose in life?” and “overall do you feel fulfilled by the activities that you engage in?”

***Resilience.*** Two questions concerned resilience and were adapted from the Brief Resilience Scale (Smith et al., 2008); “overall, do you bounce back quickly after hard times?” and “overall, do you tend to take a long time to get over set-backs in life?”

***Mental and Physical Health.*** The remaining two questions were from the PROMIS global physical and mental health scales (Hays et al., 2017); “in general, how would you rate your mental health, including your mood and ability to think?” and “in general, how would you rate your physical health, including your ability to carry out moderately strenuous tasks?” Answer options for these questions ranged from 0 (poor) to 10 (excellent).

## **Results**

Exploratory Factor Analysis using Maximum-Likelihood extraction and Direct Oblimin rotation resulted in a three factor structure in line with our suggested mediators. All scales were assessed for internal consistency using Cronbach’s alpha scores. All items were retained, and a composite score was created using the mean of each scale. Given that social



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class was assessed using two different scales, we first z-standardised the individual scales and then averaged them to create a ‘Social Class Composite’. In addition, for further analysis, we also created a ‘Social Class Capital’ score using the mean of the three economic, social and cultural capital items.

Descriptive statistics, bivariate correlations and Cronbach’s alpha scores for each scale are presented in Table 2. To provide an accessible overview of the basic link between social class and wellbeing, we first examined the observed proportion of students who suffered from poor wellbeing. Two in seven students (29.7%) who ranked themselves lower on the social class ladder (1 to 5) indicated that their wellbeing was poor (rated 0 to 4, on average, across the ten measures of wellbeing). In contrast, less than one in six (13.9%) students who ranked themselves higher on the social class ladder (6 to 10) suffered from poor wellbeing. Similarly, poor wellbeing was (descriptively) more prevalent amongst students with lower social class capital (0 to 49; 22%) compared to students with higher social class capital (50 to 100; 14.5%).

Looking at linear trends, the higher students’ ratings on the ‘Social Class Ladder’, the higher they rated their own wellbeing ( $r = 0.21$ ,  $CI_{95\%} = [0.08, 0.33]$ ,  $p < .001$ ). Similarly, the higher students’ ratings on ‘Social Class Capital’, the higher they rated their own wellbeing ( $r = 0.20$ ,  $CI_{95\%} = [0.08, 0.31]$ ,  $p < .001$ ). Probing individual facets of wellbeing, the ‘Social Class Ladder’ had the highest correlations with hedonic wellbeing ( $r = 0.22$ ,  $CI_{95\%} = [0.08, 0.34]$ ,  $p < .001$ ) and mental health ( $r = 0.20$ ,  $CI_{95\%} = [0.09, 0.31]$ ,  $p < .001$ ), and the lowest correlation with eudaimonic wellbeing ( $r = 0.08$ ,  $CI_{95\%} = [-0.04, 0.21]$ ,  $p = .145$ ). ‘Social Class Capital’ had the highest correlations with hedonic wellbeing ( $r = 0.21$ ,  $CI_{95\%} = [0.09, 0.31]$ ,  $p < .001$ ) and eudaimonic wellbeing ( $r = 0.19$ ,  $CI_{95\%} = [0.08, 0.30]$ ,  $p = .001$ ), and the lowest correlation with resilience ( $r = 0.07$ ,  $CI_{95\%} = [-0.05, 0.19]$ ,  $p = 0.22$ ).

***Indirect Effects***

To determine the role of status, inclusion and autonomy as mediators, we conducted ordinary least squares (OLS) path analysis (see Table 3) using the PROCESS macro version 3 (Hayes, 2017). To reduce the impact on statistical power caused by running numerous models, all the OLS regressions reported below used only ‘Social Class Composite’ and ‘Wellbeing Composite’ measures of social class and wellbeing, respectively.

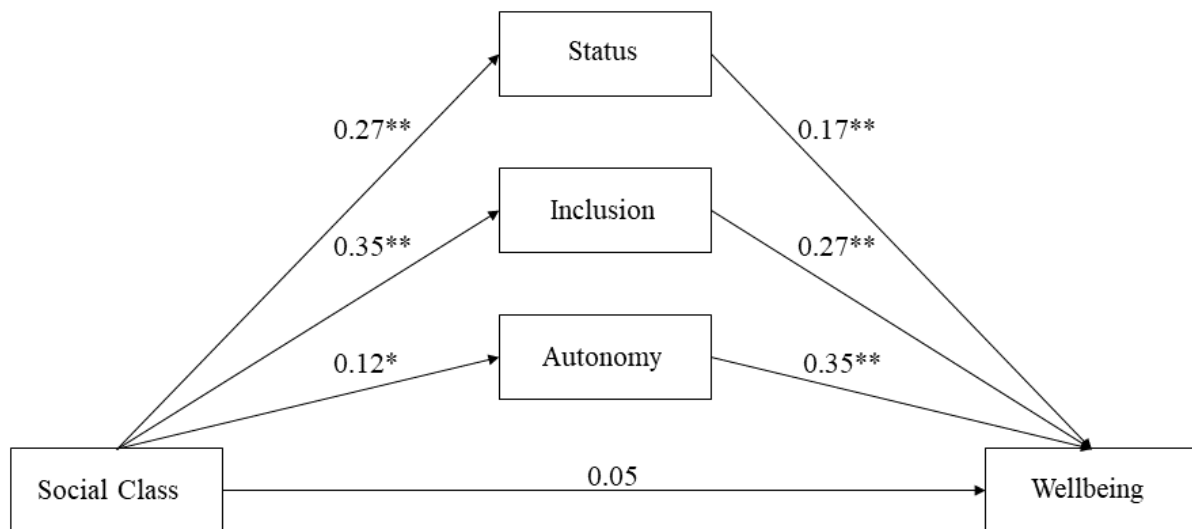
As data collection for this study began prior to, and continued during, the COVID-19 outbreak in the UK, we included ‘time’ as a covariate to partial out the potential impact of increased physical distancing measures on the data. This ‘time’ variable measured the number of weeks since data collection began. It was consistently non-significant in our results (see Table 3) and thus will not be discussed further. In addition to time, in the OLS path analysis we also controlled for gender and age. Neither gender nor age were significant covariates in the final model.

**Mediation.** Results indicated that social class was a significant predictor of wellbeing. Social class also significantly predicted status, inclusion and autonomy. See Figure 1 and Table 3 for the results of OLS regressions.

To examine the predicted simultaneous indirect effects of the mediators, we employed a percentile bootstrap estimation approach with 5,000 resamples (Shrout & Bolger, 2002). Results indicated significant indirect effects of social class on wellbeing via status (standardised ES = 0.05, CI<sub>95%</sub> = [0.01, 0.09]), inclusion (standardised ES = 0.09, CI<sub>95%</sub> = [0.04, 0.16]), and autonomy (standardised ES = 0.04, CI<sub>95%</sub> = [0.00, 0.08]).

**Figure 1**

*Standardised regression coefficients for the relationship between Social Class and Wellbeing as mediated by Status, Inclusion and Autonomy for Study 1 (university students; N = 300).*



*Note.* \*  $p < .05$ ; \*\*  $p < .01$

In summary, we found that status, inclusion and autonomy were significant mediators in the relationship between social class and wellbeing in our student sample (see Table 3). In the final model controlling for all mediators, social class was not a statistically significant predictor of wellbeing, indicating complete mediation through status, inclusion and autonomy. Approximately 40% of the variance in wellbeing was accounted for by the predictors ( $R^2 = 0.397$ ).

**Probing Different Operationalisations of Social Class and Wellbeing.** We performed further analyses (reported in detail in the Online Supplementary Materials) to examine the relationship between the various measures of social class and socioeconomic status (SES) on the one hand, and different facets of wellbeing on the other hand. In what follows, we report standardised effect sizes (Hayes, 2017; Miočević et al., 2018).

Probing the association between all objective measures of SES (income, education and occupation) and the Wellbeing Composite, the indirect effects via social inclusion were the largest, and similar in size (standardised ES = 0.04-0.06) (see Table 4). Similarly,

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examining the association between subjective measures of social class (social, economic and cultural capital) and the Wellbeing Composite, the largest indirect effects occurred via social inclusion. Effect sizes for this path ranged from 0.06 (Economic Capital) to 0.11 (Social Capital) (see Table 5). Finally, inspecting the association between ‘Social Class Composite’ and the various facets of wellbeing, the largest indirect effects occurred via social inclusion. Effect sizes for this path ranged from 0.04 (for Eudaimonic Wellbeing) to 0.09 (for Resilience and Mental Health) (see Table 6).

### **Discussion**

The results of this study support previous work that has found inclusion, status and autonomy to be significant mediators in the relationship between social class and wellbeing (González et al., 2014; Rubin et al., 2016; Yu & Blader, 2019). As these psychosocial needs are fundamentally related but had not been considered in parallel before, the current work extends previous studies by providing initial evidence that each mediating variable makes a unique contribution to the link between social class and wellbeing. In the present study, inclusion made the largest contribution in terms of explaining the relationship between social class and wellbeing (standardised ES = 0.09), followed by status (standardised ES = 0.05) and autonomy (standardised ES = 0.04). Notably, our model accounted for a large proportion of the variance in wellbeing (40%), suggesting that these mediators may play a substantial role in the relationship between social class and wellbeing.

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**Table 2***Descriptive Statistics and Correlations, Study 1 (University Students; N = 305)*

	Mean	SD	$\alpha$	1	2	3	4	5	6	7	8	9	10	11	12
1. Social Class Ladder	6.61	1.66	-	1											
2. Social Class Capital	53.03	19.42	0.76	0.63**	1										
3. Social Class Composite	0.00 <sup>‡</sup>	0.80	0.81	0.80**	0.97**	1									
4. Status	4.40	1.09	0.91	0.12*	0.30**	0.27**	1								
5. Inclusion	5.15	0.93	0.92	0.25**	0.33**	0.33**	0.57**	1							
6. Autonomy	4.73	1.01	0.62	0.12*	0.10	0.11*	0.33**	0.37**	1						
7. Hedonic Wellbeing	5.80	1.63	0.73	0.22**	0.21**	0.23**	0.37**	0.45**	0.44**	1					
8. Eudaimonic Wellbeing	5.62	2.02	0.47 <sup>†</sup>	0.08	0.19**	0.17**	0.44**	0.39**	0.38**	0.63**	1				
9. Resilience	5.41	2.05	0.57 <sup>†</sup>	0.17**	0.07	0.11	0.25**	0.36**	0.36**	0.52**	0.40**	1			
10. Mental Health	5.74	2.24	-	0.20**	0.16**	0.19**	0.36**	0.44**	0.43**	0.73**	0.60**	0.62**	1		
11. Physical Health	7.23	1.76	-	0.14**	0.13*	0.14*	0.27**	0.30**	0.24**	0.38**	0.35**	0.29**	0.39**	1	
12. Wellbeing Composite	5.82	1.49	0.86	0.21**	0.20**	0.22**	0.43**	0.50**	0.49**	0.91**	0.79**	0.74**	0.85**	0.52**	1

*Note.* Cronbach's alpha scores are missing for scales that contain only one item.

<sup>†</sup>Correlations have been used in place of Cronbach's alpha as scales only contain two items. <sup>‡</sup>Mean score for Social Class Composite is 0.00 as it has been standardised using Z-Scores.

\* $p < .05$ ; \*\* $p < .01$ .

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**Table 3***OLS Regression Results from Study 1 (University Students, N = 300).*

	Status			Inclusion			Autonomy			Wellbeing Composite					
	<i>b</i>	<i>t</i>	CI	<i>b</i>	<i>t</i>	CI	<i>b</i>	<i>t</i>	CI	Total Effect			Direct Effect		
										<i>b</i>	<i>t</i>	CI	<i>b</i>	<i>t</i>	CI
Social Class	0.36**	4.90	0.22 0.51	0.41**	6.45	0.28 0.53	0.15*	2.03	0.00 0.29	0.42**	3.96	0.21 0.62	0.09	0.93	-0.09 0.26
Status													0.23**	2.91	0.07 0.39
Inclusion													0.42**	4.46	0.24 0.61
Autonomy													0.51**	7.01	0.37 0.66
Female	0.29	1.55	-0.08 0.65	0.33*	2.08	0.02 0.64	0.12	0.65	-0.24 0.48	0.02	0.07	-0.50 0.53	-0.25	-1.16	-0.67 0.17
Age	0.06**	3.03	0.02 0.10	0.02	1.34	-0.01 0.06	0.01	0.68	-0.03 0.05	0.00	-0.03	-0.06 0.06	-0.03	-1.36	-0.08 0.01
Time	0.00	0.18	-0.05 0.05	0.01	0.29	-0.04 0.05	0.09	1.17	-0.02 0.08	0.06	1.78	-0.01 0.13	0.04	1.56	-0.01 0.10
Constant	2.87**	6.18	1.95 3.78	4.35**	11.06	3.58 5.13	4.17**	9.16	3.27 5.07	5.44**	8.28	4.15 6.73	0.80	1.23	-0.49 2.08

*Note.* Models are regressions with unstandardized coefficients. CI = 95% confidence interval

\* $p < .05$ ; \*\* $p < .01$ .

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**Table 4***Relationship between measures of objective SES and Wellbeing Composite in Study 1 (University Students).*

	Total Effect	Direct Effect	Indirect Effect (via Status)	Indirect Effect (via Inclusion)	Indirect Effect (via Autonomy)
Income	<b>0.16 [0.02, 0.14]</b>	0.06 [-0.02, 0.08]	0.01 [-0.01, 0.04]	<b>0.06 [0.02, 0.10]</b>	0.03 [-0.01, 0.08]
Education	<b>0.13 [0.02, 0.30]</b>	0.07 [-0.03, 0.20]	0.02 [-0.01, 0.05]	<b>0.04 [0.01, 0.08]</b>	0.00 [-0.03, 0.04]
Occupation	0.08 [-0.04, 0.24]	-0.00 [-0.12, 0.11]	0.01 [-0.01, 0.04]	<b>0.05 [0.01, 0.10]</b>	0.02 [-0.02, 0.06]
Objective SES Composite	<b>0.16 [0.07, 0.50]</b>	0.06 [-0.06, 0.28]	0.02 [-0.00, 0.05]	<b>0.06 [0.02, 0.10]</b>	0.02 [-0.02, 0.07]

*Note.* Standardised effect sizes are reported with bootstrapped 95% confidence intervals. Bold typeface indicates significant effects based on bootstrapped 95% confidence intervals.

**Table 5***Relationship between measures of subjective Social Class and Wellbeing Composite in Study 1 (University Students).*

	Total Effect	Direct Effect	Indirect Effect (via Status)	Indirect Effect (via Inclusion)	Indirect Effect (via Autonomy)
Social Class Ladder	<b>0.23 [0.10, 0.31]</b>	0.08 [-0.01, 0.16]	<b>0.03 [0.00, 0.06]</b>	<b>0.07 [0.03, 0.13]</b>	<b>0.05 [0.00, 0.09]</b>
Economic Capital	<b>0.14 [0.00, 0.02]</b>	0.05 [-0.00, 0.01]	<b>0.03 [0.00, 0.06]</b>	<b>0.06 [0.02, 0.10]</b>	0.02 [-0.02, 0.06]
Social Capital	<b>0.15 [0.00, 0.02]</b>	-0.07 [-0.01, 0.00]	<b>0.06 [0.02, 0.10]</b>	<b>0.11 [0.06, 0.17]</b>	<b>0.05 [0.01, 0.10]</b>
Cultural Capital	<b>0.20 [0.01, 0.02]</b>	0.08 [-0.00, 0.01]	<b>0.04 [0.01, 0.08]</b>	<b>0.07 [0.03, 0.12]</b>	0.02 [-0.03, 0.05]

*Note.* Standardised effect sizes are reported with bootstrapped 95% confidence intervals. Bold typeface indicates significant effects based on bootstrapped 95% confidence intervals.

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**Table 6**

*Relationship between the Social Class Composite and different facets of wellbeing in Study 1 (University Students).*

	Total Effect	Direct Effect	Indirect Effect (via Status)	Indirect Effect (via Inclusion)	Indirect Effect (via Autonomy)
Hedonic Wellbeing	<b>0.23 [0.23, 0.69]</b>	0.07 [-0.07, 0.35]	0.04 [-0.00, 0.08]	<b>0.08 [0.03, 0.15]</b>	<b>0.04 [0.00, 0.08]</b>
Eudaimonic Wellbeing	<b>0.18 [0.16, 0.72]</b>	0.03 [-0.18, 0.34]	<b>0.07 [0.03, 0.13]</b>	0.04 [-0.01, 0.09]	<b>0.03 [0.00, 0.07]</b>
Resilience	0.11 [0.00, 0.58]	-0.01 [-0.31, 0.25]	0.00 [-0.04, 0.05]	<b>0.09 [0.04, 0.15]</b>	<b>0.03 [0.00, 0.07]</b>
Mental Health	<b>0.19 [0.22, 0.84]</b>	0.03 [-0.19, 0.38]	0.03 [-0.00, 0.07]	<b>0.09 [0.04, 0.15]</b>	<b>0.04 [0.00, 0.08]</b>
Physical Health	<b>0.14 [0.08, 0.56]</b>	0.04 [-0.16, 0.34]	0.03 [-0.01, 0.09]	0.06 [-0.01, 0.12]	0.01 [-0.01, 0.04]

*Note.* Standardised effect sizes are reported with bootstrapped 95% confidence intervals. Bold typeface indicates significant effects based on bootstrapped 95% confidence intervals.



## Study 2

Given that existing quantitative research has primarily concerned HE students, in Study 2 we recruited HE staff. As in Study 1, we explored the extent to which autonomy, inclusion and status are meaningful drivers of the relationship between social class and wellbeing among HE staff. The participant sample for this study was University Staff that were members of their University and College Union (UCU). Given the industrial action over the past academic year due to poor working conditions (UCU, 2020), this sample provided an ideal opportunity to explore the contributions of social class to wellbeing in the workplace, along with psychosocial needs that might mediate this relationship.

### Method

#### *Participants*

We recruited participants who were employed at a UK university and were members of the University and College Union (UCU). Recruitment was conducted face to face and online. Face to face recruitment was conducted during the UCU industrial action in February and March 2020. University staff members taking part in the strike were approached at the picket lines around Durham University campus. Participants were also recruited online via social media, and in response to emails circulated by local UCU branch members nationally between March and April 2020. As compensation, participants who completed the survey could enter into a prize draw to win shopping vouchers (up to £50).

We aimed to recruit 250 participants for this study. As in Study 1, we used effect sizes to guide our analyses as these remain relatively stable as sample sizes approach 250 (Schönbrodt & Perugini, 2013). Overall, of the 287 participants that started the survey and were eligible to take part, 261 (91%) completed the survey. None of these participants failed the pre-planned attention check, thus resulting in a final sample size of  $N = 261$ .

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Participant demographic characteristics are reported in Table 7. The mean age of participants was 43.96 years ( $SD = 10.63$ ).

**Table 7**

*Demographic characteristics of Study 2 participants (University Staff, N = 261).*

Characteristic	N	Percent
<b>Gender</b>		
Male	101	38.7
Female	154	59.0
Neither male nor female	3	1.1
Did not disclose	3	1.1
<b>Ethnicity</b>		
White	247	94.6
All other ethnic groups	12	4.7
Did not disclose	2	0.8
<b>Staff Role</b>		
Academic Staff	219	83.8
Professional Services Staff	30	11.5
Other	12	4.6
<b>Employment Contract</b>		
Permanent	199	76.2
Fixed-term or Temporary	44	16.9
Zero-hours	18	6.9
<b>Average Working Hours</b>		
Up to 20 hours	22	8.4
21 - 40 hours	97	37.2
41 - 60 hours	131	50.2
Over 60 hours	11	4.2
<b>Recruited</b>		
Online	214	82.0
Face to face	47	18.0

***Procedure***

The study received ethical approval from Durham University Department of Psychology Ethics Sub-committee and was pre-registered using AsPredicted ([aspredicted.org/blind.php?x=bd7m4b](https://aspredicted.org/blind.php?x=bd7m4b)). The questionnaire was administered using Qualtrics ([www.qualtrics.com](http://www.qualtrics.com)). Participants recruited face to face completed an offline version of the questionnaire using a tablet, the remaining participants recruited via email or social media completed the questionnaire online.

***Materials***

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The materials for Study 2 were largely the same as those used in Study 1. References to ‘students’ were changed to ‘staff’. To increase the contextual relevance, references to ‘at work’ or ‘working life’ were added to appropriate questions. For example “Most of the time I feel like others...” was amended to “Most of the time I feel like other staff at the university...” Similarly, in questions relating to income, education, occupation and social class, students (Study 1) were asked to consider this at a familial or household level (*i.e.*, the highest educational qualification achieved by their parent/guardian), whilst staff (Study 2) were asked to consider this at an individual level. See Online Supplementary Materials for the complete questionnaire (<http://doi.org/10.17605/OSF.IO/RZEAM>).

### Results

Exploratory Factor Analysis using Maximum-Likelihood extraction and Direct Oblimin rotation resulted in a four factor structure as ‘inclusion’ loaded across two factors. However, the status and inclusion scales have been validated for use by previous research and importantly were found to load onto separate factors (Mahadevan et al. 2019). Further, subsequent analysis using a revised ‘inclusion’ variable did not fundamentally change the results reported below. Considering this, we proceeded with a three factor model. As per Study 1, ‘Social Class Composite’, ‘Wellbeing Composite’, and ‘Social Class Capital’ were assessed for internal consistency, and a score was created from the mean of each scale. Descriptive statistics, bivariate correlations and Cronbach’s alpha scores for each scale are presented in Table 8.

To provide an accessible overview of the basic link between social class and wellbeing, we first examined the observed proportion of staff members who suffered from poor wellbeing. One in three staff members (33.7%) who ranked themselves lower on the social class ladder (1 to 5) indicated that their wellbeing was poor (rated 0 to 4, on average, across the ten measures of wellbeing). In contrast, fewer than one in six (15.4%) staff

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members who ranked themselves higher on the social class ladder (6 to 10) suffered from poor wellbeing. The discrepancy between lower and higher social class staff members remained unchanged when examining academic staff only (27.9% and 13.9%, respectively). Similar results emerged for the measure of social class capital: poor wellbeing was more than twice as prevalent amongst respondents with lower social class capital (0 to 49; 35.3%, academic staff only: 33.3%) compared to respondents with higher social class capital (50 to 100; 14.8%, academic staff only: 11.8%).

Modelling the data with linear trends, the higher staff members' ratings on the 'Social Class Ladder', the higher they rated their own wellbeing ( $r = 0.32$ ,  $CI_{95\%} = [0.20, 0.42]$ ,  $p < .001$ ). Similarly, the higher staff members' ratings on 'Social Class Capital', the higher they rated their own wellbeing ( $r = 0.45$ ,  $CI_{95\%} = [0.34, 0.54]$ ,  $p < .001$ ). Looking at individual facets of wellbeing, 'Social Class Ladder' correlated highest with Eudaimonic Wellbeing ( $r = 0.33$ ,  $CI_{95\%} = [0.20, 0.44]$ ,  $p < .001$ ), and lowest with Resilience ( $r = 0.08$ ,  $CI_{95\%} = [-0.05, 0.21]$ ,  $p = 0.177$ ). Similarly, 'Social Class Capital' also correlated highest with Eudaimonic ( $r = 0.41$ ,  $CI_{95\%} = [0.30, 0.52]$ ,  $p < .001$ ) and Hedonic wellbeing ( $r = 0.39$ ,  $CI_{95\%} = [0.28, 0.50]$ ,  $p < .001$ ), and lowest with Resilience ( $r = 0.21$ ,  $CI_{95\%} = [0.09, 0.34]$ ,  $p = 0.001$ ).

### *Indirect Effects*

As per Study 1, we used the PROCESS macro version 3 (Hayes, 2017) to test mediation (see Table 9) and used 'Social Class Composite' and 'Wellbeing Composite', alongside autonomy, status and inclusion, in the models.

As per Study 1, 'time' was included as a covariate due to COVID-19 and the implementation of physical distancing measures. 'Time' was consistently not significant in our results (see Table 9), and thus will not be discussed further. We also controlled for

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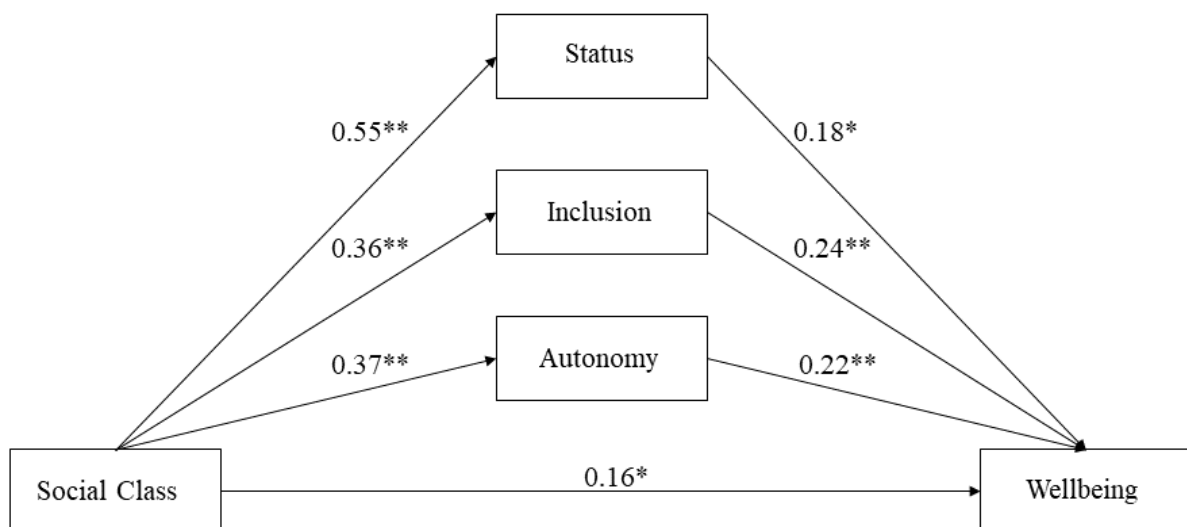
gender, age, and professional role (academic *vs.* professional services staff). Neither of these control variables were significant covariates in the final model.

**Mediation.** As per Study 1, results indicated that social class was a significant predictor of status, inclusion, autonomy, and wellbeing. See Figure 2 and Table 9 for the results of OLS regressions. To probe the simultaneous indirect effects of the mediators, we employed a percentile bootstrap estimation approach with 5,000 resamples (Shrout & Bolger, 2002). Results revealed a significant indirect effects of social class on wellbeing via status (standardised ES = 0.10, CI<sub>95%</sub> = [0.01, 0.20]), inclusion (standardised ES = 0.08, CI<sub>95%</sub> = [0.02, 0.16]), and autonomy (standardised ES = 0.08, CI<sub>95%</sub> = [0.04, 0.14]).

In summary, we found that status, inclusion and autonomy were significant parallel mediators in the relationship between social class and wellbeing. In the final model controlling for all mediators, social class remained predictive of wellbeing indicating partial mediation. Approximately 40% of the variance in wellbeing was accounted for by the predictors ( $R^2 = 0.395$ ).

### Figure 2

*Standardised regression coefficients for the relationship between Social Class and Wellbeing as mediated by Status, Inclusion and Autonomy in Study 2 (University Staff; N = 244).*



*Note.* \*  $p < .05$ ; \*\* $p < .01$

**Probing Different Operationalisations of Social Class and Wellbeing.** As in Study 1, we carried out further analyses to explore the various facets of social class and socioeconomic status on the one hand, and their relationship with different facets of wellbeing. As shown in more detail in Online Supplementary Materials, for Income and Occupation, and ‘Wellbeing Composite’, the largest indirect effect occurred via status (standardised ES = 0.06). There were no significant indirect effects mediating the relationship between Education and the ‘Wellbeing Composite’ variable (standardised ES = -0.04-0.07) (see Table 10). Considering subjective measures of social class, for Economic, Social and Cultural Capital, the largest indirect effect occurred via status (standardised ES = 0.07-0.10) (see Table 11). Similarly, for the ‘Social Class Composite’ and the various facets of wellbeing, the largest indirect effects occurred via status. Effect sizes for this path ranged from -0.01 (for Physical Health) to 0.12 (for Hedonic Wellbeing) (see Table 12).

## **Discussion**

In a study with university staff members, we found autonomy, inclusion and status to be significant parallel mediators in the relationship between social class and wellbeing, supporting prior research that has examined these factors as independent mediators (Di Domenico & Fournier, 2014; González et al., 2014; Yu & Blader, 2019). These results highlight the importance of psychosocial needs and indicate that, for University staff, status, inclusion and autonomy were similarly consequential in terms of staff members’ wellbeing (standardised ES = 0.11, 0.09, and 0.08, respectively). Whilst there is a large body of literature that has explored the roles of inclusion and autonomy in non-HE settings (e.g. Di Domenico & Fournier, 2014; González et al., 2014; House et al., 1988; Lachman & Weaver, 1998), the current work highlights the equally crucial role of status that has been somewhat

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neglected thus far. Similarly to Study 1, the model explained a large proportion of the variance in wellbeing (40%), illustrating the considerable role these mediators play in determining the wellbeing of HE staff.

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**Table 8***Descriptive Statistics and Correlations, Study 2 (University Staff; N = 261)*

	Mean	SD	$\alpha$	1	2	3	4	5	6	7	8	9	10	11	12
1. Social Class Ladder	6.16	1.86	-	1											
2. Social Class Capital	58.03	17.23	0.65	0.61**	1										
3. Social Class Composite	0.00 <sup>‡</sup>	0.75	0.75	0.79**	0.97**	1									
4. Status	4.06	1.14	0.93	0.44**	0.52**	0.54**	1								
5. Inclusion	4.91	1.00	0.92	0.12	0.36**	0.32**	0.66**	1							
6. Autonomy	3.97	1.21	0.72	0.35**	0.34**	0.37**	0.48**	0.29**	1						
7. Hedonic Wellbeing	5.23	1.78	0.78	0.29**	0.39**	0.39**	0.52**	0.42**	0.43**	1					
8. Eudaimonic Wellbeing	6.06	2.20	0.71 <sup>†</sup>	0.33**	0.41**	0.43**	0.46**	0.34**	0.36**	0.70**	1				
9. Resilience	5.48	1.87	0.49 <sup>†</sup>	0.08	0.21**	0.19**	0.30**	0.33**	0.24**	0.41**	0.24**	1			
10. Mental Health	5.77	2.19	-	0.27**	0.34**	0.35**	0.39**	0.35**	0.37**	0.65**	0.45**	0.45**	1		
11. Physical Health	7.07	2.04	-	0.19**	0.24**	0.25**	0.22**	0.23**	0.11	0.25**	0.19**	0.18**	0.35**	1	
12. Wellbeing Composite	5.68	1.48	0.85	0.32**	0.45**	0.45**	0.55**	0.47**	0.44**	0.92**	0.79**	0.61**	0.75**	0.41**	1

*Note.* Cronbach's alpha scores are missing for scales that contain only one item.

<sup>†</sup>Correlations have been used in place of Cronbach's alpha as scales only contain two items. <sup>‡</sup>Mean score for Social Class Composite is 0.00 as it has been standardised using Z-Scores.

\* $p < .05$ ; \*\* $p < .01$ .



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**Table 9***OLS Regression Results from Study 2 (University Staff, N = 244).*

	Status			Inclusion			Autonomy			Wellbeing Composite					
	<i>b</i>	<i>t</i>	CI	<i>b</i>	<i>t</i>	CI	<i>b</i>	<i>t</i>	CI	Total Effect			Direct Effect		
										<i>b</i>	<i>t</i>	CI	<i>b</i>	<i>t</i>	CI
Social Class	0.86**	9.60	0.69 1.04	0.48**	5.60	0.31 0.64	0.61**	5.88	0.41 0.82	0.84**	6.88	0.60 1.07	0.31*	2.42	0.06 0.56
Status													0.23*	2.31	0.04 0.43
Inclusion													0.35**	3.43	0.15 0.55
Autonomy													0.27**	3.75	0.13 0.41
Female	-0.20	-1.52	-0.46 0.06	-0.15	-1.21	-0.40 0.10	-0.15	-0.97	-0.45 0.15	-0.11	-0.61	-0.46 0.24	0.03	0.19	-0.28 0.34
Age	-0.01	-1.68	-0.02 0.00	-0.02**	-3.63	-0.03 -0.01	-0.00	-0.51	-0.02 0.01	0.00	0.34	-0.01 0.02	0.01	1.81	-0.00 0.03
Time	-0.07	-1.07	-0.18 0.06	-0.07	-1.20	-0.18 0.05	0.11	1.50	-0.03 0.24	-0.06	-0.73	-0.22 0.10	-0.05	-0.68	-0.19 0.09
Prof Services	-0.12	-0.61	-0.50 0.27	0.11	0.60	-0.25 0.47	0.04	0.20	-0.40 0.49	-0.37	-1.40	-0.88 0.15	-0.39	-1.69	-0.84 0.07
Constant	4.92**	13.30	4.19 5.64	6.23**	17.81	5.54 6.92	3.81**	8.89	2.97 4.66	5.92**	11.87	4.94 6.91	1.60*	2.33	0.25 2.96

*Note.* Models are regressions with unstandardized coefficients.

Prof Services = Professional Services staff when compared with Academic staff; CI = 95% confidence interval

\* $p < .05$ ; \*\* $p < .01$ .

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**Table 10***Relationship between measures of objective SES and Wellbeing Composite in Study 2 (University Staff).*

	Total Effect	Direct Effect	Indirect Effect (via Status)	Indirect Effect (via Inclusion)	Indirect Effect (via Autonomy)
Income	<b>0.13 [0.00, 0.20]</b>	0.01 [-0.07, 0.09]	<b>0.06 [0.02, 0.13]</b>	0.02 [-0.01, 0.07]	<b>0.04 [0.01, 0.07]</b>
Education	-0.30 [-1.39, 0.51]	-0.34 [-1.27, 0.28]	-0.04 [-0.23, 0.12]	0.01 [-0.11, 0.15]	0.07 [-0.09, 0.23]
Occupation	<b>0.15 [0.03, 0.60]</b>	0.04 [-0.15, 0.32]	<b>0.06 [0.02, 0.13]</b>	0.02 [-0.01, 0.07]	0.03 [-0.01, 0.08]
Objective SES Composite	0.11 [-0.07, 0.58]	-0.02 [-0.32, 0.23]	<b>0.06 [0.02, 0.12]</b>	0.02 [-0.01, 0.07]	<b>0.04 [0.01, 0.08]</b>

*Note.* Standardised effect sizes are reported with bootstrapped 95% confidence intervals, except from 'Education' where partial standardisations are reported due to the dichotomous nature of the predictor in our sample of University Staff. Bold typeface indicates significant effects based on bootstrapped 95% confidence intervals.

**Table 11***Relationship between measures of subjective Social Class and Wellbeing Composite in Study 2 (University Staff).*

	Total Effect	Direct Effect	Indirect Effect (via Status)	Indirect Effect (via Inclusion)	Indirect Effect (via Autonomy)
Social Class Ladder	<b>0.27 [0.11, 0.32]</b>	0.05 [-0.06, 0.14]	<b>0.10 [0.02, 0.19]</b>	<b>0.03 [0.00, 0.08]</b>	<b>0.08 [0.03, 0.13]</b>
Economic Capital	<b>0.26 [0.01, 0.02]</b>	0.07 [-0.00, 0.01]	<b>0.08 [0.03, 0.15]</b>	<b>0.04 [0.01, 0.10]</b>	<b>0.06 [0.03, 0.11]</b>
Social Capital	<b>0.37 [0.02, 0.03]</b>	<b>0.12 [0.00, 0.02]</b>	<b>0.10 [0.03, 0.19]</b>	<b>0.09 [0.02, 0.17]</b>	<b>0.07 [0.03, 0.12]</b>
Cultural Capital	<b>0.33 [0.02, 0.03]</b>	<b>0.15 [0.00, 0.02]</b>	<b>0.07 [0.02, 0.14]</b>	<b>0.06 [0.01, 0.13]</b>	<b>0.04 [0.01, 0.08]</b>

*Note.* Standardised effect sizes are reported with bootstrapped 95% confidence intervals. Bold typeface indicates significant effects based on bootstrapped 95% confidence intervals.

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**Table 12**

*Relationship between measures of Social Class Composite and different facets of wellbeing in Study 2 (University Staff).*

	Total Effect	Direct Effect	Indirect Effect (via Status)	Indirect Effect (via Inclusion)	Indirect Effect (via Autonomy)
Hedonic Wellbeing	<b>0.37 [0.59, 1.18]</b>	0.10 [-0.07, 0.56]	<b>0.12 [0.03, 0.22]</b>	<b>0.06 [0.01, 0.13]</b>	<b>0.09 [0.04, 0.14]</b>
Eudaimonic Wellbeing	<b>0.40 [0.81, 1.52]</b>	<b>0.19 [0.17, 0.96]</b>	<b>0.11 [0.02, 0.21]</b>	0.04 [-0.01, 0.10]	<b>0.06 [0.02, 0.11]</b>
Resilience	<b>0.16 [0.06, 0.73]</b>	-0.00 [-0.39, 0.37]	0.03 [-0.09, 0.17]	<b>0.10 [0.02, 0.18]</b>	0.03 [-0.02, 0.09]
Mental Health	<b>0.31 [0.54, 1.28]</b>	0.11 [-0.08, 0.74]	0.03 [-0.08, 0.13]	<b>0.08 [0.02, 0.15]</b>	<b>0.09 [0.04, 0.16]</b>
Physical Health	<b>0.28 [0.42, 1.14]</b>	<b>0.23 [0.22, 1.07]</b>	-0.01 [-0.12, 0.12]	0.05 [-0.01, 0.12]	0.00 [-0.05, 0.06]

*Note.* Standardised effect sizes are reported with bootstrapped 95% confidence intervals. Bold typeface indicates significant effects based on bootstrapped 95% confidence intervals.

### General Discussion

Across two studies we found that social class predicted wellbeing among both HE students ( $r = 0.22$ ) and staff ( $r = 0.45$ ). Reports of poor wellbeing were more than twice as common among lower class students and staff (29.7% and 33.7%, respectively) compared to higher class students and staff (13.9% and 15.4%, respectively). Moreover, social class correlated with various facets of wellbeing, including hedonic and eudaimonic wellbeing, and mental and physical health. This finding extends previous work, which has often focused on hedonic measures of wellbeing. In examining what underpins these relationships, we found autonomy, inclusion, and status to be significant parallel mediators. In other words, the social class of HE staff and students influences the extent to which participants in HE feel they make autonomous decisions, feel included, and feel respected, which in turn influences their mental and physical wellbeing.

Within HE, research suggests that students from lower classes have poorer mental wellbeing than their higher class peers (Neale et al., 2016; Rubin et al., 2016; Stallman, 2010). Our findings from Study 1 support this work, and also extend the literature, delineating the various facets of wellbeing that are affected by social class. Among HE students, in addition to mental health ( $r = 0.19$ ), social class was correlated with hedonic wellbeing ( $r = 0.23$ ), eudaimonic wellbeing ( $r = 0.17$ ), and physical health ( $r = 0.14$ ). In other words, social class predicted aspects of wellbeing such as happiness, anxiety, and life satisfaction, and the extent to which they felt like they had a sense of purpose and fulfilment in their lives. Further, student social class predicted responses to a subjective measure of physical health.

The research conducted with HE staff (Study 2) echoed those reported by HE students (Study 1), whereby lower class staff tended to score lower on multiple measures of wellbeing

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when compared to higher class staff. For example, among HE staff, social class predicted subjective measures of both mental ( $r = 0.35$ ) and physical health ( $r = 0.25$ ), alongside resilience ( $r = 0.19$ ), and hedonic ( $r = 0.39$ ) and eudaimonic ( $r = 0.43$ ) measures of wellbeing.

Whilst the HE literature contains much quantitative work exploring staff wellbeing (e.g. Kinman et al., 2006), and qualitative work exploring social class (e.g. Binns, 2019; Lee, 2017; Walpole, 2003), there has been little quantitative work exploring the relationship between these factors. Social class has been tied to wellbeing within the general population (e.g. Adler et al., 1994; Zell et al., 2018) and among HE students (Ibrahim et al., 2013; Steptoe et al., 2007), and the current work suggests that this relationship also persists for staff within HE.

The findings of the current research build on previous work that has used a needs-based perspective to examine wellbeing. In particular, our findings support research conducted by Tay and Diener (2011) who found that fulfilment of autonomy, social and respect-based needs is associated with wellbeing. Further, the current research illustrates that fulfilment of these needs is important to the wellbeing of students and staff in their study and work environments.

Prior research has explored the role of psychosocial needs in the relationship between social class and wellbeing. Our findings support research by Yu and Blader (2019) who reported status to be a significant mediator, whilst also lending support for research by Di Domenico and Fournier (2014) who reported inclusion and autonomy to be significant mediators. The present work extends these studies by illustrating that these mechanisms remain significant when they are investigated simultaneously, consistent with Tay and Diener (2011). For HE students (Study 1), the largest indirect effect occurred via inclusion

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(standardised ES = 0.09), whilst the indirect effect sizes for status and autonomy were (descriptively) similar (standardised ES = 0.05 and 0.04, respectively). For HE staff, all indirect effect sizes were comparable although status had the largest (standardised ES = 0.11), and autonomy the smallest indirect effect (standardised ES = 0.08) (inclusion: standardised ES = 0.09).

The defining characteristics of social class are likely to be different in North America, where the vast majority of social class research has been conducted to date (e.g. Kraus et al., 2009; Rubin, 2012; Yu & Blader, 2019). The current research dovetails with this work, and in so doing adds to the extant evidence base on social class differences within the UK. Whilst the experience of social class is shaped by economic capital, the actual impact of social class on social and psychological experience is multifaceted. For this reason, we employed a broad measure of social class that encompassed typical measures of income, education and occupation, but also indices of social and cultural capital. Among students, the frequently-used social class ladder and our novel measure of economic, social and cultural capital ('Social Class Capital') correlated similarly with wellbeing ( $r = 0.21$  and  $0.22$ , respectively). Among staff, both the social class ladder and 'Social Class Capital' correlated fairly substantially with wellbeing ( $r = 0.32$  and  $0.45$ , respectively). Similarly, from further analyses of the synthesised data (see Online Supplementary Materials), for Economic Capital, Social Capital, Cultural Capital and the social class ladder, we found similarly sized indirect effects through status, inclusion and autonomy (standardised ES ranged from 0.03 to 0.11). To retain statistical power, we did not conduct further analysis to determine whether the social class measures yielded significantly different results. However, our initial findings suggest that our novel measure comprising economic, social and cultural capital performs comparably with the social class ladder that is popular in quantitative social class research (e.g. Di Domenico & Fournier, 2014; Wingen et al., 2020; Yu & Blader, 2019). This novel

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measure could be of interest to researchers looking to explore different elements of social class in future studies.

Finally, within the quantitative literature on social class and HE, objective SES has often been used as a proxy for social class (e.g. Ibrahim et al., 2013; Neale et al., 2016). Using synthesised data from both studies, we found that the indirect effects that occurred through status, inclusion and autonomy were similar, albeit somewhat weaker, for objective SES (standardised ES ranged from 0.02 to 0.03) when compared to social class (standardised ES ranged from 0.13 to 0.17) (see Online Supplementary Materials for complete results). Taken together, our research suggests that despite the changing nature of traditional social class identities in the UK since the 1970's (Savage et al., 2013), social class continues to have a strong bearing on people's working lives, whichever way it is defined.

### **Implications for Policy and Practice**

The current research has key implications for policy and practice within HE. HEIs are often considered to be gateway institutions that provide opportunity for social mobility (Stephens et al., 2014); providing access to qualifications and valuable social networks (Brezis & Hellier, 2018; Major & Banerjee, 2019). However, our results suggest that despite being symbolic of social mobility, HE is not a level playing field, and inequalities of social class persist and impact the wellbeing of HE participants.

Staff and student wellbeing is important for a number of reasons. Firstly, HE staff play a fundamental role in the creation of knowledge through research. Given that the wellbeing of HE staff impacts performance and productivity (Ford et al., 2011), *society* would benefit from initiatives to boost wellbeing amongst university staff. Furthermore, research conducted by Hughes and Spanner (2019) as part of the University Mental Health Charter suggests that both students and staff see their wellbeing as inextricably linked.

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Perhaps this is unsurprising given that staff are responsible for teaching, supporting and mentoring students. The University Mental Health Charter suggests that the University should be treated as one ecosystem in which the wellbeing of one group affects another. Prior research already suggests that poorer wellbeing makes students more likely to leave HE (Neale et al., 2016), and given the current research showing that lower class staff and students are more likely to suffer from poor wellbeing, this could ultimately lead to a greater proportion of lower class individuals leaving HE. As a result, this could exacerbate the middle-class norms that already exist within HEIs (Phillips et al., 2020; Stephens et al., 2014).

The current research suggests that there may be opportunity to improve wellbeing via strategies that improve inclusion, autonomy or status. To first consider inclusion, the University Mental Health Charter lists ‘social integration and belonging’ as a key factor in their strategy to improve wellbeing (Hughes & Spanner, 2019). To give an example for students, The University Mental Health Charter found that some university environments, such as student accommodation without communal areas, may be detrimental to inclusion. Hughes and Spanner (2019) suggest that universities could do more to establish how friendship groups form and why students become isolated, and thus could consider ways to tackle the causes and effects of social isolation. Similarly, the Stepchange: Mentally Healthy Universities report (Universities UK, 2020) suggests that students’ unions and guilds should actively support the integration and inclusion of students into the university to reduce loneliness and improve wellbeing.

Other research has evaluated the use of specific inclusion-based strategies. For example, Pye et al. (2016) evaluated the use of peer-mentoring schemes, and identified academic support, socialisation and attrition as key themes. Specifically, ‘engendering a sense of belonging’ was identified as an important benefit of the mentoring scheme. Whilst



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this peer-mentoring scheme did not target social class, the results of the current research suggest that a similar mentoring-based scheme may prove beneficial as a way to increase feelings of inclusion among lower class students, and thus improve wellbeing. The majority of universities around the UK have a peer mentoring scheme in some capacity in place for students, and often have a similar scheme for staff. One notable example is the mentoring scheme at Monash University in Melbourne, Australia. They offer a peer mentoring programme that links school students in their final two years who live in low socioeconomic areas with students at the local university (Monash University, 2021). This mentoring programme seems to have benefits for both the mentees from low socioeconomic areas, and the mentors (Duyvestyn & Cayetana, 2018).

Rubin and Wright (2017) explored perceived inclusion among university students, but also examined the role of social class in this relationship. They identified two key reasons that, at least partly, explained why lower class students felt less socially included at university; a lack of money and a lack of time. Lower class students had less money to spend socialising with peers, and less time to spend socialising as they are more likely to have caring responsibilities, live further from the university, and have a part-time job. To counter these disparities, Rubin and Wright (2017) suggested intervention strategies that they believed would alleviate the detrimental impact of social class on wellbeing, these included subsidising social events and on-campus childcare, and improving on-campus family accommodation. This research illustrates the breadth of ways in which inclusion might be improved for HE students and staff, and the potential to improve wellbeing in these groups. Currently, there are many UK universities which offer onsite childcare however places fill up fast and prospective students are encouraged to book a place before they have an offer to study from the university. Similarly, some universities also provide family accommodation, although this is usually very limited and applicants are encouraged to apply for this as soon as

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they can (UCAS). As Rubin and Wright's (2017) research suggests, UK universities have these facilities but in a very limited capacity.

Considering inclusion among university staff, The University Mental Health Charter recommends that universities develop a supportive and inclusive culture (Hughes & Spanner, 2019). They note that whilst local factors such as having a supportive team and line manager can be beneficial for wellbeing, this should be reflected in the general structure and practices within the university. For example, high workloads often increase social withdrawal and may prevent university staff from attending social events (Kouritzin, 2019). These social events could improve feelings of inclusion and engender sense of community among university staff which in turn could have a positive impact on wellbeing.

To consider autonomy, within HE there has been a focus on developing autonomous academic motivation among students. An increase in autonomous motivation has been found to improve academic achievement (Guay et al., 2010; Guay & Vallerand, 1996). The findings of the current work suggest that using, and perhaps extending, strategies that focus on increasing autonomy could improve wellbeing for both staff and students alike. Both The University Mental Health Charter (Hughes & Spanner, 2019) and the Stepchange: Mentally Healthy Universities report (Universities UK, 2020) seek to empower students and staff to take responsibility for their own wellbeing. This is an important suggestion as it is tied to a sense of autonomy, or control, that students and staff might feel over their future. The University Mental Health Charter (Hughes & Spanner, 2019) suggests that participation can be key to empower those suffering from poor mental health. Crucially, this means involving students and staff in the development of mental health strategies which would allow them to develop a sense of agency over their own wellbeing.

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Future interventions might also benefit from considering the role of status with interventions that seek to improve respect between students, or staff members. For example, positive practices such as recognition, feedback and consultation are often recommended to increase feelings of value within a workplace more generally (Geue, 2018) and could be beneficial among HE staff and students too. As part of their Mental Health at Work Commitment (Mind, 2021), Mind included several actions that would increase feelings of respect or value among staff. For example, they encourage employers to create opportunities for feedback, ensure staff are comfortable with their workload, ensure staff maintain a work/life balance, offer flexibility in working hours, and support staff to spend a significant proportion of their time on work that is meaningful to them. Overall, Mind encourages employers to prioritise mental health in the workplace. Further, institutional strategies to tackle discrimination such as racism, sexism and classism, if seen to be authentic and sincere, could increase the extent to which minority group members feel valued by their university and could also improve their wellbeing (Bhui et al., 2018). The University Mental Health Charter suggests that universities should take action to understand the differing needs within their staff and student bodies, and develop specific interventions that address the barriers to wellbeing faced by particular groups due to structural or cultural inequalities. Existing initiatives such as the Athena Swan Charter and the Race Equality Charter (see Advance HE, 2020) could be leveraged in this way.

Whilst we have discussed interventions that serve to increase status, autonomy and inclusion directly, it may also be worth considering whether existing initiatives have an indirect impact on these psychosocial needs. For example, an intervention that seeks to provide lower class students with additional financial resources may be less effective if the students find the request for help to be demeaning or embarrassing, or do not trust that the request will remain confidential, and thus, feel like uptake of the scheme would be

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detrimental to their status among peers. This resonates with research that has explored the reasons that inhibit uptake of subsidised school meals among young people, and the stigma associated with this initiative (Farthing, 2012). The current research suggests that targeted initiatives might benefit from considering how interventions impact individuals' status, inclusion and autonomy needs.

### **Limitations and Future Directions**

The current work is not without its limitations. First, as our studies are correlational in nature we cannot infer causation. Whilst we explored whether social class acted on autonomy, inclusion, status and wellbeing, it is possible that the reverse is true. That is, wellbeing could predict inclusion or status, which in turn could influence status. For example, poor mental wellbeing might result in diminished perceptions of status (see Garbarski, 2010). It is worth noting that existing research supports the direction of the relationship that we have explored in the current work. Cohen and colleagues (2008) employed prospective methods to determine that a person's physical wellbeing does not influence a subjective measure of their social class. Rubin and colleagues (2016) conducted a longitudinal study that indicated inclusion as a key mediator in the relationship between social class and mental wellbeing. Similar longitudinal methods have been employed in research concerning autonomy and rates of mortality (Turiano et al., 2014). Yu and Blader (2019) employed experimental methods to determine causation in the relationship between social class, status and wellbeing (Study 3; Yu & Blader, 2019). Considering this literature, the direction we have examined appears to be viable; however, it is possible that some of these relationships are bi-directional. Future research using experimental, longitudinal or cross-lagged designs would make a valuable contribution to this area.

Secondly, it is important to acknowledge that whilst we discuss variations in social class in this research, it is likely that our sample was underrepresented at the extremities. We

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suspect that we did not capture HE students and staff at the lowest and highest ends of the social class spectrum, and thus likely overrepresented those that fall in the middle. Given that a restricted data range may result in weakened correlations (Sackett & Yang, 2000), it is possible that our results might have been strengthened if we had greater variation in the social class of our participants. Future research should aim to capture these harder-to-reach groups to improve the extent to which the literature is representative of all those who participate in HE.

Additionally, we did not explore the role of participant nationality. Nationality might impact the extent to which participants felt like they had status among their peers, were included by their peers, and were autonomous. For example, international students and staff may acquire a new status as part of a minority group, they may experience discrimination or racism, culture shock or detachment from the host culture, and often feel lonely or isolated (see Newsome & Cooper, 2016). These experiences may increase feelings of alienation and could impact perceptions of status and feelings of inclusion among peers. Further, for students, as young adults they may have access to newfound freedoms which are magnified by leaving the home culture and being far from friends and relatives (Rosenthal et al., 2006). It's likely that these factors would impact feelings of autonomy among international students and staff. These interactions would benefit from future research and would enrich our knowledge of the experience of the large proportion of international staff and students we have within UK HE.

Another limitation of the current work is that the university staff we recruited (Study 2) were members of the University and College Union (UCU), and these participants may have different characteristics to university staff as a whole. In particular, considering that the remit of the trade unions includes negotiating improved working conditions, these university staff members may have had more negative experiences of HE which motivated them to join

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a trade union. This could include factors relevant to the current research, such as status, inclusion, autonomy, and wellbeing. However, it is important to note that the focus of the current research lies in the relationships between the factors in our mediation model, rather than overall levels of wellbeing.

Finally, our participant sample of students (Study 1) was unrepresentative in terms of gender, with 87% identifying as female. Whilst this may inhibit the generalisability of our findings, gender was more evenly split in our staff sample (Study 2; 59% female), and the findings replicated those from Study 1. Given that we did not anticipate differences by gender, we refrained from conducting further analysis to determine whether the results were modulated by gender.

### **Conclusion**

Social class differences are salient and important to the wellbeing of both staff and students within HE. The current research has shown that lower levels of social class are associated with poorer wellbeing amongst both HE staff and students, and further suggests that status, inclusion and autonomy play an important role in this relationship. Future research looking to design effective interventions that aim to increase equality and diversity across HE would likely benefit from consideration of these mechanisms. Whilst HE institutions continue to pursue policies to ‘widen participation’, they should also seek to fully understand the ways in which social class influences experiences of HE, and the subsequent impact this could have on wellbeing. This is an important first step towards improving class-equality within HE.

**Data Availability Statement**

The data that support the findings of this study are openly available from OSF at <http://doi.org/10.17605/OSF.IO/RZEAM>.

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