

**INDIVIDUAL MOBILITY AS A ROUTE FOR SOCIAL
CHANGE: PSYCHOLOGICAL BARRIERS FOR
PARTICIPATION IN HIGHER EDUCATION**

MARLON NIEUWENHUIS



This thesis is submitted to Cardiff University in partial fulfilment of the requirements for the degree of Doctor of Philosophy

September 2015

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Abstract

This thesis focuses on the individual mobility of working class students attained through participation in higher education. I examine the structural and psychological barriers they perceive and how these barriers prevent them from successfully engaging in individual mobility. In Chapter 1, I outline the general theoretical background of the research reported in the thesis by introducing relevant individual mobility constructs and exploring current research on this topic.

In Chapter 2, I examine mobility attitudes and behaviour in three experimental studies. I show that 1) highly able students are more likely to engage in individual mobility; 2) when the permeability of a high status institution was low, individual mobility decreases; and 3) incompatibility between old and possible new social identities makes individual mobility less attractive as a strategy, especially in a context where the higher status position is prestigious and alternative options are seen as ‘good enough’.

In Chapter 3, I examine factors predicting the success of the upwardly mobile within higher education. In four studies, using structural equation modelling, I demonstrate that disadvantaged students are less likely to regard university as consistent with their social background, which predicts lower levels of psychological fit. In turn, psychological fit predicts lower levels of well-being, academic adjustment and performance. I also explore the effect of a value affirmation intervention on the strength of the relationship between identity compatibility and psychological fit for low SES students, which could potentially improve their outcomes at university.

In Chapter 4, I examine why A-level pupils from low SES backgrounds are less likely to apply to high status universities. In two studies conducted in UK secondary schools, I found that application to high status universities is predicted by anticipated psychological fit, while controlling for academic performance.

In Chapter 5, I summarise the results of my research and draw some overarching conclusions. I address some of its limitations and implications, and outline directions for future research.

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Chapter 1

Introduction and overview

How disadvantaged groups, such as ethnic minorities, women or the working class, respond to social inequality is a core issue in social identity theory (SIT; Hogg & Abrams 1988; Tajfel & Turner, 1986). One way for members of disadvantaged groups to improve their position in society is through individual mobility; this entails working for personal advancement, for example by attempting to leave their low-status group and enter a higher status group. Another possibility would be social creativity, which entails redefining the attractiveness of existing group attributes. For example, low status group members might focus on a new and positively valued dimension to compare themselves to the higher status group. As a third possibility group members might engage in social competition, which means engaging in social action intended to change the existing situation. This strategy represents a direct attempt to challenge the status quo. Of the three strategies, it is only individual mobility that serves to improve the position of a particular individual, while social creativity and social competition are both attempts to address the current standing of the group as a whole.

The current thesis focuses on individual mobility of working class students through higher education. Higher education can be seen as an individual route to mobility because it enables adolescents from disadvantaged backgrounds to improve their position in society by gaining a university degree, thereby increasing their earning potential and access to higher status professions. By attending university, adolescents from disadvantaged backgrounds are joining a new group of university students and leaving old groups behind, thereby improving their own individual position, rather than the position of the group as a whole. However, gaining access to a higher status group is not an easy option and successfully adjusting to a new group can be challenging (Argyle, 1994). In this thesis, I examine the structural and

psychological barriers perceived by working class students and how these barriers prevent them from engaging in individual mobility successfully.

Social class as a relevant social category

Traditionally, social psychology has focused more on gender and ethnicity as relevant social categories within societies, whereas sociologists have studied social class for more than a century (e.g., Durkheim, 1802). From the 1930s, sociologists in the UK started to investigate the part played by education in maintaining the social class structure and facilitating social mobility (Flude, 1974). Once the gap in attainment between pupils from different social class backgrounds was documented, scholars started to explore the education system in relation to the wider social structure (see Flude, 1974). Their research focused on the influence of pupils' socio-cultural environment on educational attainment, but also on the role of social organisations (e.g., schools, universities) themselves (Floud & Halsey, 1958). Initially, researchers argued that the working class value system was culturally deprived, posing a self-imposed barrier to education (e.g., Hyman, 1967; Sugarman, 1970). Working class people were believed to lack in ambition and an interest in education, which resulted in their relative educational failure. These beliefs were strengthened by the work of Douglas (1964) who found differences in the educational attainment of pupils with similar measured cognitive ability but from different social class backgrounds. However, the approach of cultural deprivation failed to challenge assumptions underlying the organisation, transmission and evaluation of knowledge in schools and universities (Flude, 1974). From the 1970s, scholars acknowledged there were important cultural differences between social classes, but focused more on the difficulties for the working class to translate their ambitions into educational success due to their limited material, social and cultural resources (Bourdieu, 1985, 1987; Brown, 1987; Willis, 1977).

In recent years social class has also attracted more attention from social psychologists (e.g., Kraus, Piff, & Keltner, 2011), in the recognition that social class both reflects and influences more than the material conditions of people's lives. Social class is based on an interaction between people's social, cultural, and economic backgrounds and status. Like other sociostructural variables, social class has powerful influences on people's personalities and behaviours (Ostrove & Cole, 2003). Such variables predict what clothes people wear; what food they eat; how they talk; their attitudes, values, and preferences; and their physical and mental health (Kraus & Stephens, 2012). However, there are some important distinctions between social class and other sociostructural variables, such as gender and ethnicity. First, the indicators of social class are not always immediately apparent, whereas gender and ethnicity are social categories with relatively clear physical signals (e.g., Knowles & Peng, 2005). Another difference between ethnicity and gender, on the one hand, and social class, on the other, is that social class standing is relatively malleable. Although change in social class is not without its obstacles, one's own and others' perceptions of one's social class standing in society can change over time. In contrast, a person's ethnic or gender identity is likely to remain stable throughout their lives. These characteristics of social class suggest that people from disadvantaged backgrounds can engage in individual mobility by physically distancing themselves from their group and formally gaining access to the higher status group.

Measuring social class

Social class is traditionally assessed by measuring the educational attainment, occupation or income of individuals and/or their parents. These measures reflect objective indicators that reflect the means by which individuals have access to material and social resources (e.g., financial assets or social networks; Kraus & Stephens, 2012). Educational attainment (e.g., highest earned degree) is the foremost proxy for social class (see Snibbe & Markus, 2005) and is the indicator most closely associated with lifestyle, behaviours, and

relevant outcomes, such as well-being, health and mortality (Elo & Preston, 1996; Eikemo, Huisman, Bambra, & Kunst, 2008; Kohn & Schooler, 1983; Ross & Wu, 1995).

In the context of education, researchers often refer to the educational attainment of students' parents as proxies for social class because university students have yet to establish a stable income, occupation, or level of education (for a review see Rubin, 2012). Notably, parental education can also be used to distinguish first-generation students (i.e., students whose parents did not participate in higher education) from continuing-generation students (i.e., students whose parents did participate in higher education; Pascarella, Pierson, Wolniak, & Terenzini, 2004; Pascarella, Wolniak, Pierson, & Terenzini, 2003). Furthermore, parental education is a relatively easy proxy to collect, because students are often unaware of the income of their parents. For example, one study found that 51% of university student respondents were unable to complete a family income measure (Jetten, Iyer, Tsivrikos, & Young, 2008, Study 1). I therefore used parental educational attainment as a measure of students' social class in the research reported in this thesis.

In addition, I used a subjective, self-definitional measure of social class, alongside the more objective measure of parental education. Social class refers not only to an individual's material resources, but also to their perceived rank within the social hierarchy (Kraus, Piff, & Keltner, 2009). This perspective on social class fits nicely with Bourdieu's (1985, 1987) views on social class. He proposed that the similar objective conditions, or *habitus*, in which people from different social classes live, including their differential access to social (i.e., social networks), cultural (i.e., specific knowledge, such as manners and speech), economic (i.e., material resources), and symbolic capital (i.e., prestige or recognition), give rise to subjective identities that embody social class. By asking respondents to complete a measure of their subjective social class, I attempted to capture this subjective identity.

Overview

In this introduction I will outline the general theoretical background of the thesis. This will be illustrated by real-life examples from an American podcast in which the barriers disadvantaged students perceive in education are explored (Joffe-Walt, 2015). The podcast follows Lisa and Angela, who are both teachers in the Bronx in New York City, US:

Lisa Greenbaum's school, University Heights High School, is a public [i.e., state] school. It's 97% black and Hispanic. It is located in the poorest congressional district in the country, the South Bronx. Angela Vassos' school, Fieldston, is also in the Bronx, but it is one of New York City's elite private schools. It is 70% white. It is known as a progressive school. One in five pupils receives financial aid, which is helpful, because last year [2014] tuition was \$43,000. Even though these two schools are situated only three miles away from each other, the students needed a foreign exchange program to meet each other's worlds.

The illusion of meritocracy

The podcast follows the students from the public school (Heights) visiting the private school (Fieldston):

They couldn't believe the campus [of Fieldston]. They felt like everyone was looking at them. And one of the students started screaming and crying-- like, this is unfair. I don't want to be here. I'm leaving. I'm leaving right now. I'm going home.

[A student from Fieldston] remembers the feeling she had seeing the girl freak out, feeling helpless. It's uncomfortable when you can't help someone not be

uncomfortable. No one wants to feel like they're on the hill school on the top of the hill. It's uncomfortable.

People – regardless of whether their group is advantaged or disadvantaged – do not like to think of the ways in which their outcomes may be determined by their group membership, rather than their individual merit (Major, Gramzow, McCoy, Levin, Schmader, & Sidanius, 2002). As the above example shows, being confronted with the fact that people enjoy different outcomes as a function of group membership can be quite painful and uncomfortable and threatens just world beliefs. People want to believe that the world is a just place, in which every individual receives the outcome he or she deserves (Hafer & Olson, 1989). Beliefs like this reinforce the meritocratic ideology, which refers to the conviction held in most Western societies that people's outcomes generally depend on their individual merit and that status differences are therefore based on merit (Goldthorpe & Jackson, 2008).

However, research evidence suggests otherwise. In practice, talented members of low status groups often face difficulties in improving their position. For example, talented young people from working class backgrounds are less likely to attend a high-status university than their more advantaged peers. Research by Jerrim, Chmielewski and Parker (2015) conducted in three industrialized nations (Australia, US and England) shows that 27% to 52% of this social class gap in access to high status universities can be explained by factors unrelated to academic achievement. Such findings suggest that, even if they have the academic ability to go to university, young people from working class backgrounds remain much less likely to enter high status institutions than their more advantaged peers. Similarly, statistics show that ethnic minorities are less successful in work settings than might be expected on the basis of their level of education. Figures from the UK show that they are less likely to be employed and more likely to be lower paid than white British people with the same qualifications

(Tackey, Barnes, & Khambhaita, 2011). In summary, there is no shortage of evidence that merit is not always sufficient for low status group members to engage in individual mobility. I will now discuss the structural and psychological barriers that people from low status groups are likely to face and explain why individual merit is not always sufficient to improve one's position in society. Unequal opportunities not only have implications for individual fairness, but also represent a waste of human talent and opportunity, and can have an adverse impact on a broader societal level (see Wilkinson & Pickett, 2010).

The role of social structural factors in explaining individual mobility

A student from Heights explained what she felt when visiting Fieldston:

Yep. And it was just like, OK, this is private. This is not available for kids of color. This is something that only privileged or the elite can have. I know I looked at it and I said, well, I know that we're only being taught to flip burgers in Burger King or McDonald's or to hold doors for students like them that will probably live in those buildings on Madison Avenue, and we'll be wearing the uniform, servicing these people.

According to social identity theory, beliefs about the feasibility of change are central determinants of the extent to which members of disadvantaged groups pursue achievement opportunities (Tajfel & Turner, 1979). These beliefs are related to specific characteristics of the social structure, such as the permeability of group boundaries, and the stability and legitimacy of group status structures. Perceived permeability of group boundaries is the primary factor determining whether people are likely to pursue individual mobility (Tajfel, 1978). When people believe that personal merit alone determines outcomes and group boundaries are seen as permeable, members of disadvantaged groups are hypothesized to

pursue individual mobility. By contrast, when people generally believe that their group membership prevents the achievement of certain outcomes and group boundaries are considered impermeable, individual mobility is less likely to be pursued as a strategy for self-enhancement. Research into tokenism suggests that even when the higher status group is only minimally open (i.e., when only a few individuals from the lower status groups are allowed into the higher status group), individuals prefer individual mobility over social change (Wright, 2001; Wright, Taylor, & Moghaddam, 1990).

Other characteristics of social structure, such as stability and legitimacy, also matter. In more than three decades of research, Goldthorpe and Marshall (1992) have shown that despite periods of rapid economic social and political change, class relations are characterized by stability. Class relations are also generally seen as legitimate. When status relations are seen as legitimate the relative status of groups is justified as the “deserved outcome of a just procedure” (Terry & O’Brien, 2001, p.274). System justification theory even argues that people have a general tendency to see the status quo as legitimate and therefore see the current social system as good, fair, natural, desirable, and even inevitable (Jost, Banaji, & Nosek, 2004). As a result of the perceived legitimacy of class relations, members of middle and upper class positions are thought to deserve their advantageous position because they have earned it through their greater ability and effort.

Because class relations are seen as permeable, stable and legitimate, following the assumptions of social identity theory, disadvantaged group members are likely to regard individual mobility as the only way towards status improvement. Furthermore, experimental research on the influence of social structural factors has shown that when intergroup relations were presented as stable and people were led to believe group boundaries were permeable, intergroup differences were rated as relatively legitimate (Ellemers, 1993). In other words, those who believe that the social structure allows for individual mobility are more likely to

deem existing intergroup differences to be legitimate, thereby enhancing the status quo. In sum, when group relations are seen as stable and legitimate, the permeability of group boundaries is a critical factor in determining the likelihood of personal advancement, especially in intergroup situations of a less collectivistic nature (i.e., closer to the interpersonal pole of Tajfel's [1978] interpersonal-intergroup continuum). In this thesis, I therefore only examine the role of permeability as a structural factor and the influence it has on the likelihood that disadvantaged group members use education as a way to improve their position in society. Although the individual mobility route is sometimes seen as problematic by social identity researchers (see Ellemers & Van Laar, 2010), because it reinforces the status quo, I argue that individual mobility has the potential to be a successful route for change when barriers between social groups are genuinely permeable and perceived psychological barriers between groups are removed. It is not so much individual mobility itself that is the problem but rather the permeability (real and perceived) of group boundaries.

Objective vs. subjective permeability. SIT refers to the *actual* or *perceived* nature of intergroup relations, and therefore a distinction can be made between the subjective and the objective characteristics of the social structure. This distinction can be relevant because people's perceptions and actual figures do not always coincide. Actual permeability refers to the actual openness of the high status group (e.g., official figures of low SES students that are accepted at a prestigious university), whereas subjective permeability refers to "*people's shared understanding*" (Haslam, 2004, p. 24) or "*social beliefs*" (Hogg & Hains, 2001, p. 112) about such openness. In lab-based studies actual permeability is often manipulated, for example by informing participants about the percentage of low status group members that gain access to the high status group (e.g., Ellemers, Van Knippenberg, & Wilke, 1990). In Chapter 2, I will examine the effects of 'actual' permeability on individual mobility attempts.

It is also relevant to examine the extent to which perceptions of permeability influence individual mobility attempts among low status group members. In our more naturalistic studies in secondary schools (see Chapter 4), we therefore operationalise permeability as *individual* perceptions of openness of the high status group (e.g., the extent to which certain universities are open to ‘students like me’). This is different to how permeability is defined in SIT and I therefore make a distinction between actual permeability and (individual) perceptions of permeability in the theoretical model. Because of our focus on individual perceptions (rather than people’s shared understanding) of openness we argue that the concept of subjective permeability fits better with other individual-level concerns of being accepted by and fitting into the high status group (see Figure 1.1 and below for the paragraph on psychological fit).

The role of individual ability in engaging in individual mobility

A student from Heights reflects on her ability:

You know, maybe you were just somebody exceptional because of the environment you were in, not necessarily because you are exceptional. People are like, oh, you're so smart. You're going to be this, you're going to be that, you're going to be somebody, you're going to change the world. They wanted me to apply for Harvard. And it's like, be realistic. [Me] versus a kid like Fieldston. You walk out in four years, you're prepared to go to a school like that.

In the five-stage model (FSM) of intergroup relations (Taylor & McKirnan, 1984) individual ability has been proposed as a relevant factor in explaining individual mobility attempts. FSM elaborates on SIT by arguing that when group boundaries are permeable, individual mobility would only be pursued by members of the lower status group who

perceive themselves to be near the criterion for entry into the high status group. Previous experiments have indeed shown that individual ability is an important determinant of strategy choice (Boen & Vanbaeselare, 1998, 2000, 2001, 2002; Wright et al., 1990).

Although individual ability is often represented as a characteristic of the individual, it is important to recognize that it is also influenced by group membership. In a meta-analytic review in the US it was found that family SES is one of the strongest correlates of academic performance (Sirin, 2005). A large study on progress made during secondary school using UK census data found that 40% of the overall variation in learning progress is due to between-family variation and 38% to the pupil-level (and the remaining 22% is due to wider environments, such as the school; Rasbash, Leckie, Pillinger, & Jenkins, 2010). Data from the Programme of International Student Assessment (PISA) shows that in all OECD countries a significant proportion of educational outcomes can be explained by socio-economic background (OECD, 2010). However, unravelling the relationship between SES and individual ability is beyond the aim of the current thesis. Individual ability in this thesis is defined as the entrance criteria that are needed to gain access to the high status group (e.g., the grades needed to get into a particular university) and the aim is to examine whether structural factors and psychological barriers predict individual mobility above and beyond the impact of individual ability.

The role of psychological barriers in engaging in individual mobility

A student from Heights who won a scholarship to a prestigious university:

It was never -- what I thought of myself in the future was being a janitor [i.e., cleaner]. That was what I was experienced in. So college was like, I don't know what I would do there. [...] Who am I to be accepted into a college? At the core, I still didn't feel like I was worthy. And when I got to college, it showed.

Identity compatibility. Social identity theorists (e.g., Hogg & Abrams, 1988; Tajfel & Turner, 1979) suggest that people develop multiple, nested social identities based on their group affiliations. Identity compatibility refers to the organization, structure and inter-relations between these identities (Iyer, Jetten, Tsivrikos, Postmes, & Haslam, 2009). In the context of individual mobility, it refers to the fit or compatibility between the current identity network and the new identity. For low SES students, societal stereotypes that are often salient in social and academic contexts communicate some degree of incompatibility between having a low SES background and being a university student.

One way in which inter-relations between identities can be described is the extent of perceived similarity between prototypical attributes of the two groups concerned (Roccas & Brewer, 2002). For example, a typical member of the working class could be described as dependent (i.e., socially connected to others) and a manual worker, whereas the typical university student is likely to be described as independent and intellectual (Stephens, Markus, & Townsend, 2007). Thus on the basis of perceived similarity, the level of compatibility between a university student and coming from a low SES background is likely to be seen as low. Another way in which inter-relations between identities can be described is in terms of the degree of perceived overlap between the memberships of the groups involved (Roccas & Brewer, 2002). Typically, university students (especially those at more prestigious universities) are seen as coming from more advantaged backgrounds. Indeed, the statistics on access to higher education show that students from disadvantaged backgrounds are still underrepresented at university (Mangan, Hughes, Davies, & Slack, 2010). Thus on the basis of overlap in group membership, the level of compatibility between being a university student and coming from a low SES background is likely to be seen as low.

The level of compatibility between one's current identity network and the new identity is likely to influence the ease of integration into the new group and thereby affect

long-term well-being; this is likely to determine the degree to which the individual mobility route is successful. In line with Iyer and colleagues (2009), I propose that when a new identity is perceived to be incompatible with the old identity, the old identity might interfere with integration into the new group. In such cases, well-being is likely to be affected because it will take longer for a new sense of identification with and belonging in the new group to be established. Furthermore, I expect that perceptions of identity incompatibility and its *anticipated* consequences (i.e., lack of belonging and identification and lower well-being) is likely to lead members of disadvantaged groups to refrain from engaging in individual mobility. I therefore propose that identity compatibility is an important psychological barrier for individual mobility (see Chapters 2 and 4) and that even if disadvantaged students overcome this barrier and embark on this route, identity compatibility will influence the success of individual mobility (in terms of integration into the new group and gaining the same outcomes as ‘original’ group members; see Chapter 3).

This view of identity compatibility is related to work on identity conflict or identity interference, which refers to the way in which the pressures of one identity can interfere with the performance of another identity (Van Sell, Brief, & Schuler, 1981). For example, work in this tradition has demonstrated the conflicts encountered by students who compete in athletics (Settles, Sellers, & Damas, 2002) or by working parents (Frone, Russell, & Cooper, 1997; Greenhaus & Beutell, 1985). However, an important difference between the current view of identity compatibility and prior work on identity interference is that the latter line of research adopts an individual-level approach in documenting the negative consequences experienced by those who occupy conflicting roles, rather than considering the compatibility between group memberships and social identities (see also Iyer et al., 2009).

The current approach also differs from work on identity complexity, which refers to an individual’s subjective representation of the interrelations among his or her multiple group

identities (Roccas & Brewer, 2002). This line of work focuses on how individuals differ in their way in which they incorporate multiple group memberships into their sense of self, which can range from low complexity (i.e., when multiple identities are subjectively embedded in a single ingroup representation) to high complexity (i.e., when differences between ingroup categories are acknowledged) and examines the consequences of identity complexity for intergroup contact and outgroup tolerance (Brewer & Pierce, 2005; Schmid, Hewstone, Tausch, Cairns, & Hughes, 2009). By contrast, the notion of identity compatibility as used in the current thesis focuses on the fit between an individual's social identities, and examines the consequences for integration into a new group and for personal well-being.

Psychological fit. Successfully adopting a new identity when the context changes, is likely to have a positive influence on adjustment and well-being. The extent to which the upwardly mobile adopt a new identity is likely to depend on their perception that they are accepted as a group member by the new group (i.e., social belonging) and their wish to be associated with the new group (i.e., their level of social identification). More specifically, social belonging refers to people's perceptions of the quality of their social relationships in a setting, including whether others in that setting include, value, and respect them (see Baumeister & Leary, 1995). As such, social belonging refers to the perception of the degree to which one is accepted as a group member. The importance of a sense of belonging for both psychological and physical well-being has been well established (Hagerty, Lynch-Sauer, Patusky, Bouwsema, & Collier, 1992; Hale, Hannum, & Espelage, 2005; Jetten, Haslam, & Haslam, 2011; Leary, Tambor, Terdal, & Downs, 1995). Baumeister and Leary (1995) suggested that group affiliation patterns are best understood as instantiations of the need to belong. Although the potential fluidity of class position (i.e., engaging in individual mobility) provides the opportunity to belong to almost any social class group, markers of social class (such as clothing, speech, and interests to describe and identify "people like us") can inhibit,

and even prohibit a sense of real belonging to a new social class (Ostrove & Long, 2007). Relevant to the present research is the fact that past research has shown that a sense of belonging at university is a key indicator of integration into academic settings, including academic and social adjustment (Ostrove & Long, 2007).

Social identification refers to a motivational process, reflecting the affective ties of the individual to the group (Hogg & Abrams, 1988). As such, the extent to which an individual identifies with a group is largely under his or her own control and reflects the individual's wish to be associated with the group (Ellemers & Jetten, 2013; Leach et al., 2008). From an identity perspective, changes in group membership mean that individuals have to cope with the loss of an existing identity when they leave one group to join another. If the 'old' group has been important to an individual's self-definition, the process of leaving it behind may be difficult (Ellemers, 2003). Furthermore, individuals have to join a new group and adopt a new identity. In order to adopt a new identity, the upwardly mobile are likely to have to abandon their old identities, especially if the old and new identities cannot be reconciled (Haslam, Eggins, & Reynolds, 2003). Previous research suggests that group identification can be an important resource in coping with stressful changes and challenges to identity (Haslam & Reicher, 2006; Postmes & Branscombe, 2002; Schmitt, Spears, & Branscombe, 2003). Indeed, a longitudinal investigation of students entering university showed that identification with the new group predicted students' views of this experience: The more they identified with university students as a group, the more likely they were to believe that attending university would be an upward mobility strategy that would help to improve their socioeconomic status (Jetten, Iyer, Tsivrikos, & Young, 2008). The new sense of belonging and identification should also have a positive effect on long-term well-being (Branscombe, Schmitt, & Harvey, 1999; Hirsch, 1981; Jetten, Branscombe, Schmitt, &

Spears, 2001), in part because self-categorisation as a group member provides a new sense of belonging.

The role of context

Self-categorisation theory (SCT; Turner, 1982; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) suggests that the way in which people perceive themselves in relation to their social environment is an important cognitive factor that influences how people define their own place in the social structure. Contextual cues determine which of an individual's multiple identities is active or salient at any particular point in time (e.g., Deaux & Major, 1987; Steele & Aronson, 1995). More specifically, the extent to which a particular identity becomes salient is based on the contrast between a student's self-definition and the current context. People with minority status in the group (e.g., low SES students at university) are more likely to be aware of that characteristic than are those with majority status (McGuire, McGuire, Child, & Fujioka, 1978). This suggests that for low SES students entering university, their social background would be salient, especially when entering prestigious universities where students typically come from advantaged backgrounds.

Further, the specific identity that is activated within a given context may influence whether individuals appraise a situation as stressful and, if so, how they cope with it. The mere salience of negative stereotypes can lead members of stigmatized groups to experience anxieties, leading them to underperform (as a result of stereotype threat; Steele & Aronson, 1995). The application of negative group-based expectations to the self makes it less likely that members of disadvantaged groups will display the competence needed to take advantage of individual mobility opportunities (Ellemers & Van Laar, 2010). From the above, it can be concluded that for low SES students it is likely that their social background becomes salient within a university context, especially in universities in which they are in a minority. As a result, low SES students are less likely to fit into more prestigious universities.

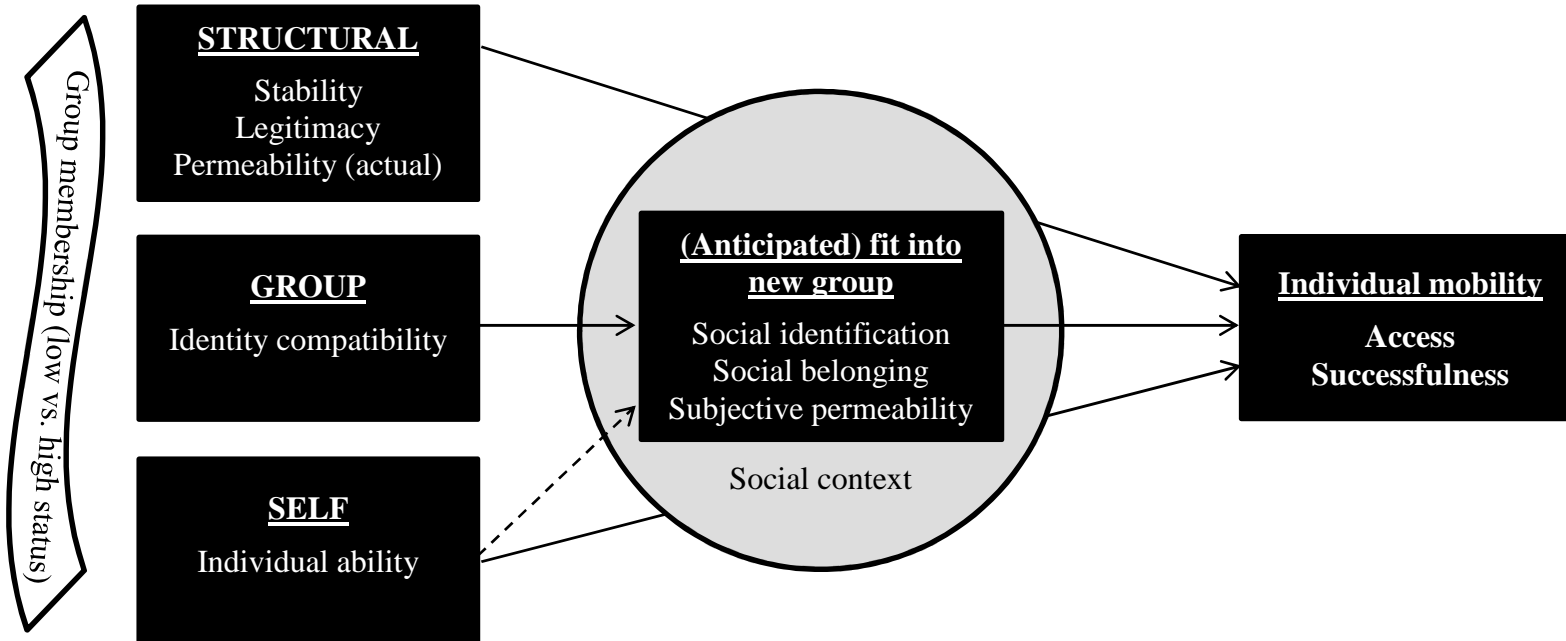


Figure 1.1.

Theoretical model of the role of structural, individual and identity factors in individual mobility (defined as access to the high status group and extent of success within the high status group).

The present research

In this thesis, I examine how (perceptions of) structural and psychological barriers, as outlined above, inhibit working class students from engaging in individual mobility (successfully), thereby showing that individual merit is not always sufficient to improve one's position in society. I will do so by using several methodological and statistical approaches and examining different populations at different stages in their mobility trajectory. In doing so, I show that individual mobility has the potential to be a successful route for change when barriers between social groups are genuinely permeable and perceived psychological barriers between groups are removed.

In Chapter 2, I examine the role of characteristics of the social structure (i.e., permeability of group boundaries), identity compatibility (i.e., between the new and the old identities) and individual ability on mobility attitudes and behaviour in three experimental studies.

In Chapter 3, I argue that individual mobility should not only be regarded as an issue of *access*, because this would imply that entry into a higher status group or institution constitutes the endpoint of a person's mobility trajectory. In four studies, using structural equation modelling, I examine the underlying processes, explaining how socio-economic status influences social and academic integration into higher education. I also explore the effect of a value affirmation intervention on the strength of the relationship between identity compatibility and psychological fit for low SES students, and thereby on their likely outcomes at university.

In Chapter 4, I examine whether identity compatibility, anticipated psychological fit and academic performance are able to explain why A-level pupils from low SES backgrounds are less likely to apply to high status universities. In two studies conducted in UK secondary

schools, I examine, using structural equation modelling, whether these factors explain higher education choices.

In Chapter 5, I summarise the results of my research and draw some overarching conclusions. I address some of its limitations and implications, and outline some directions for future theory and research.

It is worth noting that the three empirical chapters are based on multi-study papers that are in the process of being submitted to peer-reviewed journals. As such, there is some degree of overlap between these chapters with respect to their introduction and discussion sections, which ensures that each one can be read independently. To reflect the fact that the research reported in the three empirical chapters was conducted in collaboration with others, I use the personal pronoun “we” rather than “I” in these empirical chapters.

Chapter 2

The Limits of Meritocracy: The Impact of Permeability, Individual Ability and Identity Compatibility on Individual Mobility Attitudes and Behaviours

How disadvantaged groups such as ethnic minorities and the working class respond to social inequality is a core issue in social identity theory (SIT; Tajfel & Turner, 1986). One way for members of such groups to improve their position in society is via individual mobility, which entails working for personal advancement, for example by attempting to leave their low-status group and enter a higher status group. Personal advancement can be achieved via employment, education or other opportunities. Western societies tend to stress the opportunities for everyone to cross status boundaries in the social hierarchy. According to the principles of meritocracy, “the association between individuals’ social origins and their attainment must increasingly reflect only their level of ability - as other factors that might prevent the full expression of this ability are removed or offset” (Goldthorpe & Jackson, 2008, p. 4).

In practice, however, talented members of low status groups often face difficulties in improving their position. For example, talented young people from working class backgrounds are less likely to attend a high-status university than their more advantaged peers. Research by Jerrim, Chmielewski and Parker (2015) in three industrialized nations (Australia, US and England) shows that 27% to 52% of this social class gap in access to high status universities can be explained by factors unrelated to academic achievement. These findings suggest that even if they have the academic ability to go to university, young people from working class backgrounds remain much less likely to enter high status institutions than their more advantaged peers. Similarly, statistics show that ethnic minorities are less successful in work settings than might be expected on the basis of their level of education.

Figures from the UK show that they are less likely to be employed and are more likely to be lower paid than white British people with the same qualifications (Tackey, Barnes, & Khambhaita, 2011). In summary, there is no shortage of evidence that merit is not always sufficient for low status group members to engage in individual mobility. Unequal opportunities not only have implications for individual fairness, but can also have an adverse impact on a broader societal level (see Wilkinson & Pickett, 2010). The current research focuses on the role of social identity factors in preventing low status group members from realizing their potential.

The feasibility of individual mobility

According to social identity theory, beliefs about the feasibility of change are central determinants of the extent to which members of disadvantaged groups pursue achievement opportunities (Tajfel & Turner, 1979). These beliefs are related to specific characteristics of the social structure, such as the degree of permeability of group boundaries, and the stability and legitimacy of group status structures. Social identity theory suggests that individual mobility as a strategy for self-enhancement is most likely when group boundaries are (perceived as) permeable. The subjective belief that the system allows for self-advancement regardless of social background, gender, ethnicity, or some other group-based identity is seen as a precondition for the realization of such self-advancement (see also Ellemers, Van Knippenberg, de Vries, & Wilke, 1988; Ellemers, Van Knippenberg, & Wilke, 1990) and should determine the likelihood that people will engage in actual personal advancement.

The five-stage model (FSM) is a related theoretical framework that addresses the issue of how members of disadvantaged groups respond to social inequality (Taylor & McKirnan, 1984). The model proposes that the temporal sequencing of relationships between social groups fall into five discrete stages, with the basic processes of causal attribution and social comparison both underlying each stage and controlling the transition between the

stages. In Stage 3, characterized by meritocratic ideologies, the FSM emphasizes the importance of permeability by suggesting that members of disadvantaged groups will engage in individual mobility even when the high status group is only minimally open, allowing only a few tokens into the high status group. Research into the tokenism effect, in which perceptions of group openness were manipulated, indeed found that participants in the open and minimally open conditions preferred individual mobility over collective action (Wright, 2001; Wright, Taylor, & Moghaddam, 1990). These findings suggest that permeability of group boundaries is a critical factor in determining the likelihood of personal advancement, especially in intergroup situations of a less collectivistic nature (i.e., closer to the interpersonal pole of Tajfel's [1978] interpersonal-intergroup continuum) and where status differences are stable.

According to the FSM, self-enhancement in societies with permeable group boundaries is especially likely in a context where advantaged and disadvantaged group status is ostensibly based on ability and effort, and where everyone has potentially the same opportunity to belong to the advantaged group. The FSM states that in meritocratic societies many disadvantaged group members come to view their position as a just reflection of their ability and effort. Therefore, those who have relatively high status within the disadvantaged group and are closest to achieving the entry requirements of the high status group (i.e., attaining success on a dimension valued by the high status group) are more likely to initiate individual mobility. Thus, according to the FSM, individual ability should interact with permeability: When group boundaries are permeable, individual mobility will not be pursued by all members of the disadvantaged group, but rather by those who believe that they have sufficient ability to qualify for membership of the high status group.

However, to date no empirical support has been found for this theoretically predicted interaction between permeability and individual ability. Although previous studies (e.g., Boen

& Vanbeselaere, 1998, 2000, 2001, 2002; Wright et al., 1990) found that talented group members were more likely to engage in individual mobility than their less talented counterparts, the predicted interaction with permeability did not emerge. Regardless of the precise way in which ability influences self-advancement, the above research suggests that in addition to situational factors, individual characteristics also play a role in the feasibility of individual mobility.

The costs of individual mobility

Despite having talent and opportunities, members of disadvantaged groups might refrain from individual mobility due to certain consequences of engaging in this strategy. According to Blau (1956) the upwardly mobile are “marginal men, in some respects out of tune with others both in their new and original strata in the societal hierarchy” (p. 290). The upwardly mobile typically have to choose between sacrificing valued social ties and customs in an effort to gain social acceptance by the higher status group and refraining from translating their success into such acceptance. Striving to gain access to the higher status groups is likely to entail a change in social identity as a higher status member and typically entails leaving an old group. Research suggests that identity change can have negative consequences for well-being if an individual’s identity network before the change is not consistent with his or her new identity (Iyer, Jetten, Tsivrikos, Postmes, & Haslam, 2009).

The anticipation of such consequences could inhibit low status group members from engaging in an individual mobility strategy. A study examining individual mobility in the context of higher education suggests that the perceived compatibility between old and new identities can influence individual mobility efforts (Jetten, Iyer, Tsivrikos, & Young, 2008). These researchers measured students’ perceptions of compatibility between being a university student and their social background at a time when the students were still attending secondary school, and assessed its influence on their perceptions of higher education. Working class

students were more likely to feel that their social background was incompatible with being a university student and therefore felt less prepared for university life and expected to identify less with other university students. It is worth noting that such feelings of incompatibility could be a result of lack of ability (i.e., low grades), because ability was not controlled for in this study. Nevertheless, these feelings of incompatibility could potentially prevent working class students from applying to study at university. Another way in which compatibility of identities might exert an influence is by constraining an individual's degree of mobility. For example, in research on students' choice of university, students from less advantaged backgrounds were more likely to settle for 'second best' universities (Reay, Davies, David, & Ball, 2001). Whether it influences readiness to engage in individual mobility and/or the extent of such mobility, perceived compatibility between one's identity as a low status group member and becoming a high status group member appears to exert an important influence on upward mobility.

The current study

The present research examines the ways in which individual ability, permeability of group boundaries and compatibility of identities jointly influence individual mobility. In line with SIT and the FSM, we expect that permeability of group boundaries and individual ability both play a relevant role in determining the feasibility of individual mobility. This is examined in Study 1.

To date no research has examined the influence of identity compatibility on individual mobility. Prior research has only investigated the influence of perceived compatibility of identities on individual mobility beliefs (Jetten et al., 2008). In Studies 2 and 3 of the present research, perceived compatibility of identities is experimentally manipulated and its influence on individual mobility is assessed. We hypothesize that incompatibility of identities will

inhibit members of low status groups from engaging in individual mobility, or lead them to choose ‘second best’ options.

The current research advances the experimental paradigms previously used to study the impact of socio-structural characteristics in a number of ways. Prior studies (e.g., Boen & Vanbeselaere, 1998, 2000, 2001, 2002; Ellemers et al., 1990; Wright, 1997) examined reactions to permeability based on overt rejection or acceptance of members of a low status group by a high status group. However, in many real life situations low status and high status group members compete to gain access to a still higher status group or institution (e.g., a higher education institution, the board of a corporation, or leadership positions in prestigious organizations). To reflect this reality, in the current research low status group members are not overtly rejected on the basis of their group membership, but instead receive information either about the extent to which a higher status institution is open (i.e., permeable) to members of their ingroup (Study 1) or about the extent to which members of their own group are likely to feel comfortable in the higher status group (identity compatibility; Studies 2 and 3). The aspiration of lower status group members to engage in individual mobility is measured. We also take the opportunity to examine these issues in the context of membership of educational groups that differ in status, as opposed to the experimentally created groups used in previous studies (e.g., Ellemers et al., 1990; Wright, 1997).

Study 1

In the first experiment we examined the influence of individual ability and permeability of group boundaries on attitudes to individual mobility.

Method

Participants and Design

Participants were 79 undergraduate psychology students from Cardiff University. One outlier with a very deviant response (more than 3 *SDs* above the sample mean) on several

measures was excluded from further analyses. Of the remaining sample (N = 78), 94% were female. Participants were randomly assigned to one of the four conditions of the study, in which ability (*low vs. high*) and permeability (*closed vs. open*) were manipulated.

Procedure

Participants were seated at personal computers in individual cubicles and were told that the study was about career perspectives for undergraduate students. First, participants were asked to read a description of a vacancy for a position at a think-tank that was open only to law and psychology students. The think-tank was presented as a high status institution and it was stated that for this position a candidate with excellent information processing skills was sought. After reading about the vacancy, participants were asked to rate the attractiveness and status of the position. To manipulate ability, participants had to perform an information processing task. Participants were asked to work with a stack of corporate memoranda relating to a fictitious company. They had to imagine that they were employees of this company and answer as many multiple-choice questions as possible within 10 minutes, based on the data contained in the memos. They were told that their information processing ability would be based on the number of multiple choice questions answered within 10 minutes (speed) and the number of mistakes made (accuracy). To be considered for the position, a score of 7.5 (out of 10) or higher was needed. After completing the task, participants were given information about the importance of information processing as a competency. Manipulated feedback on the task was given after the permeability manipulation (see below).

Low relative group status was induced by informing participants that, on average, undergraduate students in law score higher on the information processing test than psychology undergraduates and that this difference is reflected in the greater success law

students have in finding a job once they have graduated and the higher starting salaries that they command.

Participants were then told that, “Of the highly qualified applicants in the past 15 years, 48% were psychology students and 52% were law students.” Permeability was manipulated by providing information about the think-tank’s hiring patterns in the last 15 years. In the *closed* condition, participants read that although both law and psychology students were equally likely to be appointed to the positions in the first 10 years, recently only law students had been appointed and the current positions were filled by four law students. In the *open* condition, law students were said to have filled all positions in the first 10 years but that more recently both law and psychology students had been appointed and currently the positions were filled by two law and two psychology students.

Participants were then given the opportunity to obtain their score on the information-processing task from the database. Individual ability was manipulated by giving different feedback to the participants. In the low ability condition, participants were told that they scored 6 out of 10, below the threshold of 7.5. In the high ability condition, participants were told they scored 8 out of 10 on the information-processing task, above the threshold. Participants then completed manipulation check questions and the dependent measures.

Measures

To check the effectiveness of the induction of low group status, participants were asked to rate the average information processing skills of both law and psychology students in two separate items, using a 7-point scale (1 = *much below average*; 7 = *much above average*). To check the manipulation of individual ability, participants were asked to evaluate their information processing skills based on the task they had done (1 = *very poor*; 7 = *very good*). The manipulation of permeability was checked by asking who has been appointed to the student positions in the think tank in recent years (1 = *only law students*; 7 = *only*

psychology students). After the manipulation checks, participants were asked questions about their *individual mobility attitudes*. Four items, e.g. ‘I’m keen to get this position,’ were measured on a 7-point scale (1 = *completely disagree*; 7 = *completely agree*). One item, namely ‘To what extent would you like to apply for the position in the think-tank?’, was measured on an 11-point scale (1 = *not at all*; 11 = *very much*; based on Boen & Vanbeselaere, 2000). The five items were standardized and averaged to form a reliable scale ($\alpha = .87$).

Results

Analytic strategy

Scores on all measures were subjected to two-way analyses of variance (ANOVA) with individual ability (*low* vs. *high*) and permeability (*closed* vs. *open*) as between-subjects factors. Table 2.1 shows the descriptive statistics for each condition.

Table 2.1.

Study 1: Simple means for individual mobility attitudes.

Permeability	Low ability			High ability		
	n	M (SD)	95% CI	n	M (SD)	95% CI
Closed	20	-.47 (.60)	[-.78, .17]	19	.04 (.81)	[-.28, .37]
Open	21	0.7 (.75)	[.24, .39]	18	.43 (.64)	[.10, .76]

Manipulation checks

Participants rated psychology students as having poorer information processing skills ($M = 5.11$, $SD = .91$, 95% CI[4.90, 5.33]) than law students ($M = 5.90$, $SD = .80$, 95% CI[5.71, 6.09]), $F(1,77) = 46.75$, $p < .001$, $\eta_p^2 = .40$, 90% CI[.24, .49]. Furthermore, participants in the impermeable condition considered it less likely that psychology students would get the position in the think-tank ($M = 2.21$, $SD = 1.13$, 95% CI[1.92, 2.49]) than did participants in the permeable condition ($M = 3.68$, $SD = .53$, 95% CI[3.40, 3.98]), $F(1,74) =$

52.78, $p < .001$, $\eta_p^2 = .42$, 90% CI[.27, .52]. Neither the main effect of ability nor the interaction was significant for the permeability manipulation check, $F_s(1,74) < .30$, $p_s > .60$. Finally, participants in the low individual ability condition reported having worse information processing skills ($M = 3.71$, $SD = 1.25$, 95% CI[3.31, 4.11]) than did participants in the high ability condition ($M = 5.14$, $SD = 1.29$, 95% CI[4.71, 5.56]), $F(1,74) = 23.98$, $p < .001$, $\eta_p^2 = .25$, 90% CI [.11, .37]. Neither the main effect of permeability nor the interaction effect was significant for the ability manipulation check, $F_s(1,74) < .10$, $p_s > .70$.

Individual mobility attitudes

Analysis of responses on this measure revealed a main effect for individual ability, $F(1,74) = 7.39$, $p = .008$, $\eta_p^2 = .09$, 90% CI[.01, .20]. Participants in the high ability condition had more positive attitudes towards individual mobility ($M = .23$, $SD = .75$, 95% CI[.01, .47]) than did participants in the low ability condition ($M = -.21$, $SD = .73$, 95% CI[-.42, .02]). There was also a significant main effect of permeability, $F(1,74) = 8.43$, $p = .005$, $\eta_p^2 = .10$, 90% CI[.02, .22]. Participants in the permeable condition had more positive attitudes ($M = .24$, $SD = .72$, 95% CI[.02, .48]) than did participants in the impermeable condition ($M = -.23$, $SD = .74$, 95% CI[-.44, .01]). The interaction effect was not significant, $F(1,74) = .26$, $p = .613$.

Discussion

The results show that individual ability and permeability are indeed relevant determinants of individual mobility attitudes in relatively low status group members in our paradigm. Contrary to the five-stage model, but in keeping with previous empirical findings (Boen & Vanbeselaere, 1998, 2000, 2001, 2002; Wright et al., 1990), individual ability and permeability did not interact. This suggests that low status group members are more likely to engage in individual mobility when the feasibility of mobility (defined in terms of the characteristics of either the individual or the situation) increases.

Study 2

As noted earlier, another factor that is expected to influence the attractiveness of individual mobility as a self-enhancement strategy is the compatibility between social identities, which was examined in a second study. As well as mobility attitudes, we measured participants' individual mobility choices, asking them to choose between two positions that differed in status.

Method

Participants and Design

One hundred and nine undergraduate psychology students at Cardiff University participated in this study. They were randomly assigned to one of the four conditions of the study, in which ability (*low vs. high*) and compatibility (*low vs. high*) were manipulated. Twelve participants were excluded (one did not follow the instructions in the ability task, eight participants gave an incorrect answer on a basic manipulation check for the ability task and three participants were outliers with very deviant responses, i.e., more than 3 *SDs* above the mean, on one or more of the measures). Of the remaining sample ($N = 97$), 92% were female.

Procedure

Participants were seated at personal computers in individual cubicles. They were told that the study was about career perspectives for undergraduate students. First, participants read that the organization 'Internship Consortium' was offering a number of internships, two of which were suited to psychology students. Participants were told that this organization makes use of a validated test of information-processing ability to help select interns. They were asked to complete this test, so that they would have a good impression of the information-processing skills required for the internships. Participants were given 10 minutes

to complete the test (as in Study 1). They were then told that the experimenter would calculate their score, which they would obtain later in the study.

Participants were then asked to read descriptions of two vacancies. The *General Psychology Internship* was presented as a (relatively) lower status internship, for which participants with good (but not outstanding) information processing skills were sought. The internship was described as offering an interesting experience and it was stated that just over half the students who had completed this internship had obtained a full-time position within 2 months of completing their degree. The *Professional Psychology Internship* was presented as a higher status internship, for which participants with excellent information processing skills were sought. The internship was described as a challenging but rewarding experience and it was stated that nearly all students who had completed this internship had obtained a full-time position within 2 months of completing their degree. After reading both descriptions, students rated the attractiveness and status of each internship.

Next, participants were asked to read two internships reports written by Cardiff University students who had previously completed either the General Psychology Internship or the Professional Psychology Internship. The lower status internship (the GPI) was always described as being compatible with being a Cardiff University student. In the report participants read that the fellow interns all came from other universities but that the student found it easy to fit in with them. However, the compatibility of the higher status internship (the PPI) was varied across conditions. In the low compatibility condition, being an intern at the higher status institution was described as being incompatible with being a Cardiff university student. Participants read that the fellow interns came from other universities and that the student found it sometimes difficult to fit in with them. By contrast, in the high compatibility condition being an intern at the higher status institution was described as being compatible with being a Cardiff university student. Participants read that the fellow interns

came from other universities, but that the student nevertheless felt they were one large group of interns who got along well with each other.

Participants then received their score on the information processing task. They were told that successful candidates should obtain a score of 60% or higher to be considered for the GPI and a score of 80% or higher for the PPI. Individual ability was manipulated by giving different feedback to the participants. In the low ability condition, participants were told that they scored 62% on the information-processing task, indicating they were eligible to apply for the GPI; they were also told that with additional training they might become eligible to apply for the PPI. In the high ability condition, participants were told that they scored 82% on the information-processing task, indicating they were eligible to apply for both the GPI and the PPI. Participants then completed the manipulation check questions and the dependent measures.

Measures

To check the individual ability manipulation, participants were asked how they evaluated their own information-processing skills, based on the task they had done, using a 7-point scale (1 = *average*; 7 = *excellent*). The effectiveness of the compatibility manipulation was checked by asking how well a typical Cardiff University student would fit in socially in the high status internship (1 = *not at all*; 7 = *very well*). Participants were next asked about their *individual mobility attitudes*, measured using the same 5-item scale as in Study 1 ($\alpha = .81$). In addition, participants' *individual mobility choices* were measured by asking whether they wanted to apply for the low status internship (coded 0) or the high status internship (coded 1).

Results

Analytic strategy

Scores on the manipulation checks and attitudinal measure were entered into two-way

analyses of variance (ANOVA) with individual ability (*low* vs. *high*) and compatibility (*low* vs. *high*) as between-subjects factors. Individual mobility choices were examined using logistic regression. Table 2.2 shows the descriptive statistics for each condition.

Table 2.2.

Study 2: Simple means for individual mobility attitudes and percentage choices for the higher status (HS) vacancy (compared to the lower status vacancy).

Compatibility	Attitudes						Choices (for HS vacancy)	
	Low ability			High ability			Low ability	High ability
	n	M (SD)	95% CI	n	M (SD)	95% CI	%	%
Low	21	-.47 (1.02)	[-.80, -.13]	25	.08 (.75)	[-.23, .39]	15	64
High	26	-.002 (.69)	[-.30, .30]	25	.31 (.63)	[.01, .62]	38.5	68

Manipulation checks

Participants in the low individual ability condition reported having lower information processing skills ($M = 3.21$, $SD = 1.08$, 95% CI[2.87, 3.55]) than did participants in the high ability condition ($M = 4.72$, $SD = 1.23$, 95% CI[4.39, 5.05]), $F(1,93) = 40.18$, $p < .001$, $\eta_p^2 = .30$, 90% CI[.18, .41]. Neither the main effect of compatibility nor the interaction effect was significant for the individual ability manipulation check, $F_s(1,93) < .10$, $p_s > .70$.

Furthermore, participants did experience different levels of compatibility with the high status internship. As expected, participants in the incompatible condition thought that a typical Cardiff University student would fit in less well socially in the high status internship ($M = 2.72$, $SD = 1.39$, 95% CI[2.39, 3.02]), compared to participants in the compatible condition ($M = 6.20$, $SD = .66$, 95% CI[5.90, 6.50]), $F(1,93) = 253.50$, $p < .001$, $\eta_p^2 = .73$, 90% CI[.65, .78]. Neither the main effect of ability nor the interaction effect was significant, $F_s(1,93) < 1.5$, $p_s > .25$.

Individual mobility attitudes

Analysis of responses on this measure revealed a main effect of individual ability, $F(1,93) = 7.48, p = .007, \eta_p^2 = .07, 90\% \text{ CI} [.01, .17]$. Participants in the high ability condition had more positive attitudes towards individual mobility ($M = .20, SD = .69, 95\% \text{ CI} [-.02, .41]$) than did participants in the low ability condition ($M = -.21, SD = .87, 95\% \text{ CI} [-.46, -.01]$). There was also a significant main effect of compatibility, $F(1,93) = 4.87, p = .030, \eta_p^2 = .05, 90\% \text{ CI} [.00, .14]$. Participants in the high compatibility condition had more positive attitudes towards individual mobility ($M = .15, SD = .67, 95\% \text{ CI} [-.06, .37]$) than did participants in the low compatibility condition ($M = -.17, SD = .91, 95\% \text{ CI} [-.42, .04]$). The interaction effect was not significant, $F(1, 93) = .54, p = .463$.

Individual mobility choices

The lower status internship was chosen by 51.5% of the sample, whereas the higher status internship was chosen by the remaining 48.5% of the sample. However, these frequencies were significantly influenced by ability level ($B = 1.58, SE = .45, Wald(1) = 12.51, p < .001, odds \text{ ratio} = 4.83, 95\% \text{ CI} [2.02, 11.56]$). When ability was high, students were more likely to apply for the higher status position than the lower status position (66% vs. 34%, respectively) compared to when ability was low (30% vs. 70%, respectively). The main effect of compatibility was not significant, $B = .53, SE = .45, Wald(1) = 1.44, p = .230, odds \text{ ratio} = 1.71, 95\% \text{ CI} [.71, 4.08]$. Furthermore, adding the interaction term did not significantly improve the model, $\chi^2(1) = .78, p = .38$, as the interaction effect was not significant, $B = -.80, SE = .91, Wald(1) = .77, p = .259$.

Discussion

The findings indicate that individual ability and compatibility of identities both determine individual mobility attitudes. This suggests that low status group members are

more favourable towards individual mobility when the feasibility (in terms of the characteristics of the individual) and the attractiveness to do so increases. However, the influence of compatibility was less strong than expected, especially in view of the fact that this factor did not have a significant influence on individual mobility *choices*. This might be due to the fact that the influence of compatibility had different implications for low and high ability students in this study. For low ability students, incompatibility of identities reduced the feasibility of individual mobility and led them to have objectives that were more *in keeping* with their ability level (i.e., to choose for the lower status position). For high ability students, the reduction in feasibility (as a result of incompatibility of identities) made them more inclined to apply for a position that was *below* their ability level (i.e., the lower status position). However, it might be that incompatibility between identities is not sufficient to influence students to such an extent that they would opt for an institution that is significantly below their ability levels. Indeed, when examining the means (see Table 2.2) the influence of compatibility seems less strong in the high ability condition, compared to the low ability condition. These findings suggest that in addition to individual ability, compatibility of identities is a relevant determinant of individual mobility, although its exact influence may depend on the context. This raises the question of what would happen if students (either low or high in ability) were presented with a more realistic situation in which options are available that are below, in line with, or above their respective ability levels. How would ability and compatibility influence attitudes and intentions under these conditions? Would it inhibit students from aiming higher? These issues were examined in a further experiment.

Study 3

In this study we examined whether ability and compatibility would influence the *degree* of individual mobility. All participants were presented with multiple internship

options: ones that were below, in line with, or above their own ability level. We manipulated students' ability level and wanted to investigate whether incompatibility of identities would prevent students, especially those with high ability, from aiming high and thereby influence the degree of mobility.

Method

Participants and Design

Eighty-nine undergraduate psychology students at Cardiff University participated in this study. They were randomly assigned to an ability condition (between-subjects: low vs. high). Within the ability conditions, the status of two internships was manipulated (within-subjects: low vs. middle status in the low ability condition; and middle vs. high status in the high ability condition) and participants were randomly assigned to a compatibility condition (between-subjects: low vs. high). The design of the study is represented diagrammatically in Figure 2.1. Two outliers with deviant responses on one or more of the measures (more than 3 SDs above the mean) were excluded from the sample, as well as four participants who did not follow the instructions correctly. Of the remaining sample (N = 83), 84% were female.

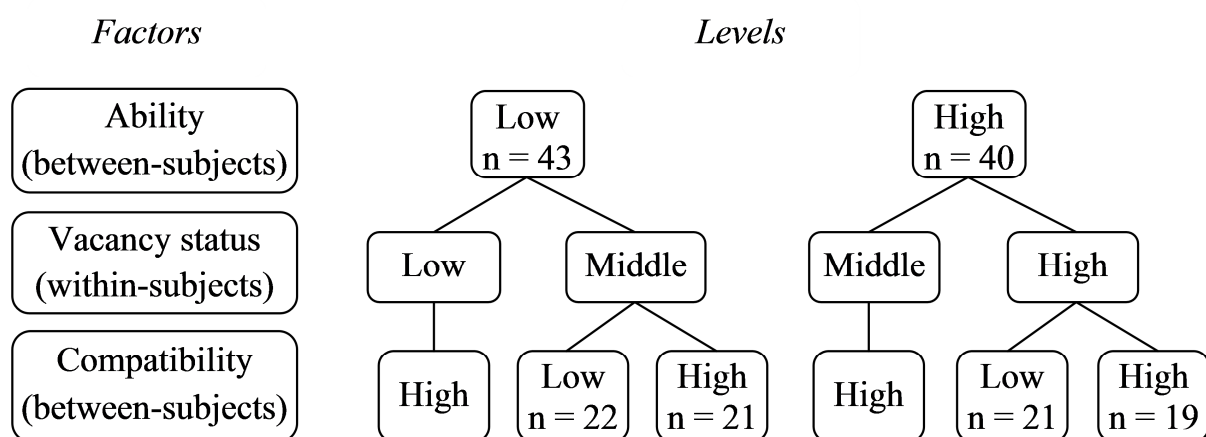


Figure 2.1.

The design of Study 3 (N = 83).

Procedure

Participants were seated at personal computers in individual cubicles. They were told that the study was about career perspectives for undergraduate students. First, participants read that the organization ‘Internship Consortium’ was offering a number of internships, among which were three that were suited to psychology students. Participants were told that this organization makes use of a validated test of information-processing ability to help select interns (for details see Study 1). They were then asked to complete this test, so that they would have a good impression of the information-processing skills required for the internships.

Next, participants received their (bogus) test score. They were told that successful candidates should obtain a score of 60% or higher to be considered for a *General Psychology Internship* (GPI), 70% or higher for an *Intermediate Psychology Internship* (IPI) and a score of 80% or higher for a *Professional Psychology Internship* (PPI). Individual ability was manipulated by giving different feedback to the participants with regard to their individual performance on the test. In the low ability condition, participants were told that they scored 66% on the information-processing task, indicating they were eligible to apply for the GPI; they were also told that with additional training they could well become eligible to apply for the IPI but that the PPI appeared to be out of reach. In the high ability condition, participants were told that they scored 76% on the information-processing task, indicating they were eligible to apply for both the GPI and the IPI; they were also told that with additional training they could well become eligible to apply for the PPI.

Next, the status of the internships was manipulated. All participants were told that description of the two vacancies that were closest to their information processing ability would be shown to them, and that they would have the opportunity to apply for one of these vacancies. Participants in the low ability condition were ostensibly shown the lower status

(GPI) and the middle status (IPI) internships, whereas students in the high ability condition were ostensibly shown the middle status (IPI) and the higher status (PPI) internships. In fact, the information presented in the vacancies was identical in both ability conditions, except for the vacancy titles. The first vacancy (ostensibly the lower status vacancy in the low ability condition and the middle status vacancy in the high ability condition) stated that candidates with good information processing skills were sought. The internship was described as an interesting experience and it was said that just over half the students who had completed this internship had obtained a full-time job within 2 months of completing their degree.

Furthermore, they read that the success rate of applicants was around 50%. For the second vacancy (ostensibly the middle status vacancy in the low ability condition and the high status vacancy in the high ability condition), participants read that participants with excellent information processing skills were sought. The internship was presented as a challenging but rewarding experience and participants read that nearly all students who had completed this internship obtained a full-time job within 2 months of completing their degree. Furthermore, they read that the success rate of applicants was around 33%. After reading the two descriptions participants rated the attractiveness and status of each internship.

Next, participants read two internship reports, one for each vacancy, written by Cardiff University students who had completed one of the internships in the past. Being an intern in the first internship (i.e., the lower status internship in the low ability condition, the middle status internship in the high ability condition) was always presented as compatible with being a Cardiff University student. Participants read that the other interns all came from other universities but that the student found it easy to fit in with them. However, the compatibility of the second internship (i.e., the middle status internship in the low ability condition, the high status internship in the high ability condition) varied across conditions. In the low compatibility condition, being an intern in the organization was presented as being

incompatible with being a Cardiff university student. Participants read that the other interns all came from other universities and that the student found it sometimes difficult to fit in with them. In the high compatibility condition, being an intern within organization was presented as compatible with being a Cardiff university student. Participants read that the other interns all came from other universities; but that the student felt they were one large group of interns who got along well with each other. After reading the blogs, participants completed the manipulation check questions and the dependent measures.

Measures

To check the manipulation of *individual ability*, participants were asked to rate their information-processing skills, based on the task they did, using a 7-point scale (1 = *good*; 7 = *excellent*). The *vacancy status* manipulation was checked by asking participants to rate the status of each of the two vacancies that they read about (1 = *very low*; 7 = *very high*). The *compatibility* manipulation was checked by asking participants to rate how well a typical Cardiff University student would fit in socially in the first (i.e., GPI in the low ability condition, IPI in the high ability condition) and second internships (i.e., IPI in the low ability condition, PPI in the high ability condition), using a 7-point scale (1 = *not at all*; 7 = *very well*).

Participants were then asked about their *individual mobility attitudes* regarding the two internships that were presented to them. In the low ability condition, participants responded to questions regarding the lower (GPI) and middle status internship (IPI), whereas in the high ability condition participants responded to questions regarding the middle (IPI) and high status internship (PPI). The same items were used in both conditions, using the same 5-item scale as in Studies 1 and 2, but with the addition of two items ('I am very motivated to apply to this internship,' and 'I want to do this internship because it would be good for my career prospects'). All items were standardized to form a reliable scale ($\alpha > .91$). To measure

individual mobility intentions, participants in the low ability condition were asked to apply for the lower status (GPI; coded as 0) or the middle status (IPI; coded as 1) internship position, whereas participants in the high ability condition were asked to either apply for the middle (IPI; coded as 0) or the higher status internship position (PPI; coded as 1).

Results

Analytic strategy

Because not all levels of the design were fully crossed (see Figure 2.1), analyses were conducted within ability level (low vs. high). That is, scores on all dependent measures within each level of ability were subjected to a two-way analysis of variance, with vacancy status (low and middle in the low ability condition; middle and high in the high ability condition) as a within-subjects factor and compatibility (low vs. high) as a between-subjects factor. Significant two-way interactions were followed up with simple effects analyses.

Manipulation checks

Participants in the low individual ability condition reported having lower information processing skills ($M = 3.53$, $SD = 1.30$, 95% CI[3.19, 3.87]) than did participants in the high ability condition ($M = 4.57$, $SD = .87$, 95% CI[4.22, 4.93]), $F(1,79) = 17.99$, $p < .001$, $\eta_p^2 = .19$, 90% CI[.07, .31]. Neither the main effect of compatibility nor the interaction effect was significant, $F_s(1,79) < 1.0$, $p_s > .30$.

Within the low ability condition participants rated the low status vacancy ($M = 4.93$, $SD = .88$, 95% CI[4.66, 5.21]) as having a lower status than the middle status vacancy ($M = 6.12$, $SD = .70$, 95% CI[5.90, 6.33]), $F(1,41) = 133.93$, $p < .001$, $\eta_p^2 = .77$, 90% CI[.65, .82]. Within the high ability condition participants rated the middle status vacancy ($M = 5.50$, $SD = .78$, 95% CI[5.24, 5.74]) as having lower status than the high status vacancy ($M = 6.47$, $SD = .77$, 95% CI[6.30, 6.74]), $F(1,38) = 72.20$, $p < .001$, $\eta_p^2 = .66$, 90% CI[.49, .74]. There were

no significant effects of compatibility or interaction effects within both ability conditions, $F_s < 1.5, p_s > .25$.

Within the low ability condition there was an effect of compatibility on ratings of the middle status vacancy, $F(1,41) = 70.80, p < .001, \eta_p^2 = .63, 90\% \text{ CI} [.47, .72]$. As expected, participants in the incompatible condition thought that a typical Cardiff University student would fit in less well socially in the middle status vacancy ($M = 3.00, SD = 1.45, 95\% \text{ CI} [2.50, 3.50]$), compared to participants in the compatible condition ($M = 6.00, SD = .78, 95\% \text{ CI} [5.49, 6.52]$). Within the high ability condition there was also an effect of compatibility on ratings of the high status vacancy, $F(1,38) = 434.18, p < .001, \eta_p^2 = .92, 90\% \text{ CI} [.87, .94]$. As expected, participants in the incompatible condition thought that a typical Cardiff University student would fit in less well socially in the high status vacancy ($M = 1.89, SD = .74, 95\% \text{ CI} [1.60, 2.19]$), compared to participants in the compatible condition ($M = 6.16, SD = .50, 95\% \text{ CI} [5.86, 6.45]$).

Individual mobility attitudes

Within the low ability condition there was a main effect of internship status, $F(1,41) = 4.48, p = .040, \eta_p^2 = .10, 90\% \text{ CI} [.05, .17]$. Students had more negative mobility attitudes towards the lower status position ($M = -.23, SD = .92, 95\% \text{ CI} [-.51, .06]$), compared to the middle status position ($M = .03, SD = .78, 95\% \text{ CI} [-.21, .27]$). This was not qualified by compatibility, $F(1,41) = .02, p = .881$ and there was no main effect of compatibility, $F(1,41) = .67, p = .417$. Within the high ability condition there was also a main effect of internship status, $F(1,38) = 4.42, p = .042, \eta_p^2 = .10, 90\% \text{ CI} [.05, .18]$. Students had more positive attitudes towards the middle status internship ($M = .25, SD = .64, 95\% \text{ CI} [.04, .45]$), compared to the higher status internship ($M = -.03, SD = .86, 95\% \text{ CI} [-.30, .25]$). There was no main effect of compatibility, $F(1,38) = .05, p = .825$. The effect of internship status was qualified by compatibility, $F(1,38) = 4.83, p = .034, \eta_p^2 = .11, 90\% \text{ CI} [.06, .19]$. Simple

effects showed (see Figure 2.2 for a graphical representation of the effects) that when compatibility with each position was high, students were as favourable towards the middle status ($M = .13, SD = .76, 95\% \text{ CI}[-.24, .49]$) as towards the high status position ($M = .14, SD = .88, 95\% \text{ CI}[-.29, .56]$), $F(1,38) = .00, p = .948$. However, when compatibility with the higher status position was low (but compatibility with the middle status position was high), students were more favourable towards the middle status vacancy ($M = .35, SD = .50, 95\% \text{ CI} [.12, .58]$), than the high status vacancy ($M = -.18, SD = .84, 95\% \text{ CI}[-.56, .20]$), $F(1,38) = 9.73, p = .003, \eta_p^2 = .20, 90\% \text{ CI} [.11, .33]$.

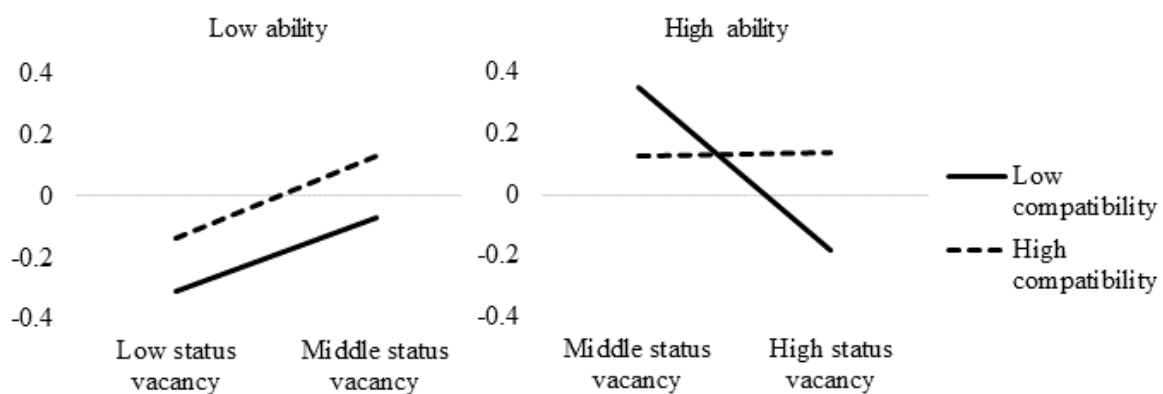


Figure 2.2.

Study 3: Simple effects for individual mobility attitudes per ability condition.

Individual mobility choices

In the low ability condition, 40% of the participants chose to apply for the lower status internship, while the remaining 60% chose to apply for the middle status internship. Compatibility did not significantly influence these choices, ($B = .51, SE = .63$), $Wald(1) = .66, p = .418, odds \text{ ratio} = 1.67, 95\% \text{ CI} [.48, 5.74]$. Within the high ability condition, 55% chose to apply for the middle status internship, while the remaining 45% chose to apply for the higher status internship. Compatibility had a significant impact on these frequencies, ($B = -.92, SE = .48$), $Wald(1) = 4.61, p = .032, odds \text{ ratio} = 4.29, 95\% \text{ CI} [1.14, 16.18]$. When compatibility with both internships was high, participants selected the middle status position

less often than the high status position (37% vs. 63%, respectively). However, the reverse was the case in the low compatibility condition: When compatibility with the higher status internship was low (but compatibility with the middle status position was high), participants were more likely to choose the middle status internship than the high status internship (71% vs. 29%, respectively).

Discussion

The findings show that the effect of compatibility differs between low ability and high ability participants. Compatibility did not affect the decisions of low ability students with regard to their internship choice: On average they were more likely to opt for the more challenging internship, independent of its degree of compatibility with their current identity. However, compatibility did have an influence on the choices made by the high ability participants: On average they were more likely to choose the less challenging internship when the more challenging one was incompatible with their current identity.

A possible limitation of this study is that the design was not fully factorial (see Figure 2.1), in the sense that levels of vacancy status and compatibility were not fully crossed within each ability level and therefore three-way interactions between ability, status and compatibility could not be calculated. Instead, two-way interactions between status and compatibility were calculated within each ability level. This design was used because it reflects reality constraints: In real life people choose between positions that are in keeping with their ability levels. For example, students tend to decide between universities that demand grades (or GPAs) that are close to the ones that they are likely to achieve. Practical constraints also played a role in shaping the design: Asking participants to read three vacancies and internship reports might have led to information overload.

GENERAL DISCUSSION

The results of these studies show that individual ability, permeability and compatibility are determinants of the individual mobility of members of low status groups. The permeability of group boundaries is a social structural feature that has been theorized and shown to be the primary determinant of whether members of low status groups pursue a strategy of individual mobility (Ellemers et al., 1988, 1990; Tajfel & Turner, 1979). In Study 1 of the present research we showed that permeability is influential in a different setting to the one in which it has typically been investigated. In a situation in which members both of a relatively low status group and relatively high status group competed to gain access to a still higher status group, the permeability of the last group significantly affected attitudes and intentions, such that they were less positive when permeability was low.

It is not only social structural characteristics but also attributes of individual group members that shape the likelihood of pursuing an individual mobility strategy. In Studies 1 and 2 we also showed that high ability students were more likely to engage in individual mobility than their less able counterparts, and that this effect of individual ability is independent of the effect of permeability and compatibility. This finding runs counter to the predictions of the five-stage model, which suggests that the effect of permeability and ability would be interactive: When group boundaries are open, low status group members should only engage in individual mobility when they have the ability to do so. However, in line with previous findings (Boen & Vanbeselaere, 1998, 2000, 2001, 2002; Wright et al., 1990), we found that individual ability had an independent effect on mobility strategies.

Although individual mobility may seem an attractive strategy when the social structure permits it, there are a number of mechanisms that can render it less attractive (see Ellemers & Van Laar, 2010). In Studies 2 and 3 we showed that compatibility of identities is one of those mechanisms. When there is incompatibility between current identity and a

potential higher status identity, low status group members have less favourable attitudes towards individual mobility, although it is worth noting that the effects of compatibility on mobility *choices* were less apparent in Study 2. Interestingly, in Study 3 we found that when compatibility between current identity and a potentially higher status identity was low, it was the high ability participants who were more likely to ‘play safe’ by selecting the less challenging option.

These findings suggest that identity compatibility is not an absolute property that depends only on the reported degree of compatibility of a high status target group with previous members of the ingroup; rather, its influence varies as a function of social structural factors. In Study 2 we found that group members’ attitudes were more favourable towards positions that were compatible with their current identity; however, identity incompatibility was not an important enough consideration for them to choose a low status position for which they were over-qualified. However, when such a position was presented in Study 3 as a *middle* status position, identity incompatibility did have an impact, presumably because a middle status position in a 3-tier status hierarchy was seen as ‘good enough’. Thus when the high status position was incompatible, a compatible middle status position was the preferred option, despite the fact that the high status position was within reach in terms of ability. In keeping with Reicher’s (1996) recommendations, it is therefore important to consider the dynamic and context-specific aspects of each intergroup situation, rather than expecting a factor like identity compatibility to have the same effects regardless of contextual factors.

Our results suggest that incompatibility of identities can be a barrier to individual mobility in a context where the higher status position is prestigious and where alternative options are seen as ‘good enough’. However, our findings also imply that when high status institutions are accessible and compatible, low status group members are likely to be willing to invest the extra effort needed to engage in social mobility and thereby realize their

potential. Future research should examine in greater detail the way in which social context moderates the impact of identity compatibility on individual mobility.

A limitation of the studies is the small sample size in Studies 1 and 3. Low sample size can result in low statistical power, which means there is a reduced chance of detecting a true effect. However, low power also reduces the likelihood that a statistically significant result reflects a true effect (Button, Ioannidis, Mokrysz, Nosek, Flint, Robinson, & Munafò, 2013). Study 1, while using a different paradigm, replicates the findings of multiple other studies (i.e., Boen & Vanbeselaere, 1998, 2000, 2001, 2002; Wright et al., 1990) looking at the effect of permeability and ability on individual mobility. Thus, the similar pattern of results in previous studies supports our findings. In Study 3, we found a large effect for our main finding, that is, when compatibility between current identity and a potentially higher status identity was low, high ability participants who were more likely to ‘play safe’ by selecting the less challenging option ($p = .003$, $\eta_p^2 = .20$, 90% CI[.11, .33]). However, in small studies effect sizes are more susceptible to overestimation (Button et al., 2013). Nevertheless, given the size of our effect we can be more confident that there is an actual effect – although the true effect might be slightly smaller, given the small sample size.

Together, our findings suggest that individual mobility is not simply a reflection of merit. Characteristics of the social structure, compatibility of identities and characteristics of the individual group member all influence the likelihood and attractiveness of individual mobility as a strategy for advancement. Furthermore, the effects of identity compatibility on individual mobility suggest that this strategy is not as ‘individual’ as it may at first appear. In contrast with the view that individuals can act independently to optimize their personal well-being and outcomes, the current findings show that it is important to take into account people’s group-based identity (see also Ellemers & Van Laar, 2010). The greater the

incompatibility between identities, the more that people's group-based identity is at stake, and the less likely people are to engage in individual mobility.

In addition, the current research suggests that it is important to examine relative mobility. Relative mobility compares the chances of two individuals from different social groups being found in one destination rather than another. By contrast, absolute mobility only considers the movement between social group origin and destination (Breen, 2004). Even where it appears that members of low status groups are upwardly mobile in an absolute sense, they may often fail to achieve the same mobility as their higher status counterparts. For example, the evidence concerning women's representation in senior political positions shows that while progress in women's political participation continues to be largely positive across the world, glass ceilings remain firmly in place for women at the highest levels (UN Women, 2014). Similarly, people from lower social class backgrounds, as well as being generally under-represented in UK higher education (Blackburn & Jarman, 1993; Blanden & Machin, 2004), are known to be especially poorly represented in the most prestigious universities (Boliver, 2011; Zimdars, Sullivan, & Heath, 2009). A study of the origins of these disparities in higher education found that the unfairness appears to arise largely from barriers to *applying to* prestigious universities (Boliver, 2013). Extrapolating from the present findings, compatibility of identities is likely to be one of the barriers involved. This helps to explain why highly able members of low status groups often avoid the most challenging (but potentially most rewarding) forms of social mobility.

Chapter 3

Explaining Adjustment in Higher Education among Low SES Students: The Role of Social Identity Factors

Participating in higher education is an important way to improve one's economic position in society. Research evidence suggests that attending university is related to several positive outcomes, such as better employment prospects and better health outcomes (Easterbrook, Kuppens, & Manstead, 2015; Putnam, 2000; Siegrist & Marmot, 2006). Increasing the number of students from disadvantaged backgrounds in higher education is therefore an important way to enhance social mobility and improve wellbeing. Students from disadvantaged backgrounds are still underrepresented in university (OECD, 2010) and governmental policies have therefore focused on increasing widening participation (e.g., Greenbank, 2006). However, once disadvantaged students have entered university, the process of individual mobility is not finished. Most research has defined mobility as an issue of access. Although this is important, one issue with such an approach is that it tends to imply that entry into a group or institution constitutes the endpoint of a person's mobility trajectory. While many individuals from disadvantaged backgrounds do secure admission to prestigious universities, this does not mean they necessarily achieve the same levels of success as those from more privileged backgrounds. Research suggests that students from lower SES backgrounds leave university with lower grades (Robbins, Allen, Casillas, Peterson, & Le, 2006) and are less likely to complete their degrees (Arulampalam, Naylor, & Smith, 2005; Engstrom & Tinto, 2008), and – perhaps as a result – they have lower occupational success (Hussain, McNally, & Telhaj, 2008). Research into occupational mobility demonstrates that even when the upwardly mobile are successful in entering elite occupations (e.g., doctors, lawyers, scientists and IT professionals) after gaining a university degree, they have lower incomes than their advantaged counterparts, even when controlling for important variables

such as schooling, education, location, age, cultural capital (i.e., specific knowledge) and social capital (i.e., social networks; Friedman, Laurison & Miles, 2015).

Climbing the social ladder also entails becoming part of a higher status group. Integration into the new group can be achieved in various ways and the upwardly mobile might not aim for or want a central position in the new group (Ellemers & Jetten, 2013). One could argue that the upwardly mobile are especially likely to be perceived as marginal group members because they are more likely to match some defining group characteristics but not others (e.g., upwardly mobile individuals from low SES backgrounds might have a university degree, but lack the social networks of their more advantaged counterparts). Indeed, research into social adjustment at university suggests that students from low SES backgrounds are less integrated than their more advantaged counterparts. A meta-analysis by Rubin (2012) showed that students from lower socioeconomic backgrounds are less likely to participate in formal and informal social activities and feel less sense of belonging within their institution. In addition, qualitative studies conducted in the USA indicate that social class has an impact on levels of integration and the extent to which students feel that they 'fit in' (Aries & Seider, 2005, 2007). Social adjustment is important in higher education as it is related to students' academic development, outcomes and retention (for a review, see Pascarella & Terenzini, 2005). A recent report by the Higher Education Academy in the UK indicated that a sense of belonging, an important indicator of social adjustment, is key to retention rates in higher education (Thomas, 2012). Ostrove and Long (2007) found that sense of belonging at college mediated the relation between social class and academic adjustment.

The role of social identity factors in university adjustment

To date, little research has been conducted on the underlying processes, explaining how socio-economic status influences social and academic integration in higher education (e.g., Langhout, Drake & Rosselli, 2009; Jetten, Iyer, Tsivrikos & Young, 2008). Some

studies have focused on practical constraints and found that working-class students have fewer financial resources available and have more work and/or childcare commitments, which reduces their opportunity for social integration (Rubin & Wright, 2015). The current research focuses on the role of identity factors. According to social identity theory, members of low status groups strive to achieve positive social identities (Tajfel & Turner, 1979). One strategy to achieve this is by moving into a higher status group (i.e., individual mobility). Education can be seen as an important upward mobility route because it provides students from disadvantaged backgrounds with a means of improving their individual position in society. By climbing the social ladder the upwardly mobile join new groups (i.e., university students) and leave their old groups behind (i.e., family and friends from the community back home). The ease with which the upwardly mobile take on their new identity can be hindered by a number of factors (Ethier & Deaux, 1994).

First, low SES students may become very aware of their social background when attending university, which then hinders them from adopting the new identity. According to social identity (Tajfel & Turner, 1979) and self-categorisation theory (Turner, 1982; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), the extent to which a particular identity becomes salient is based on the contrast between a student's self-definition and the current context. People with a minority status in the group (e.g., low SES students at university) are more likely to be aware of that characteristic than are those with majority status (McGuire, McGuire, Child, & Fujioka, 1978). This suggests that for low SES students entering university their social background would be salient, especially when entering prestigious universities where students typically come from advantaged backgrounds. The mere salience of negative stereotypes can lead members of stigmatized groups to experience anxieties, leading them to underperform (as a result of stereotype threat; Steele & Aronson, 1995). The application of negative group-based expectations to the self makes it less likely that members

of disadvantaged groups will display the competence needed to take advantage of individual mobility opportunities (Ellemers & Van Laar, 2010).

Furthermore, the ease at which the new identity is adopted is likely to depend on the contrast between a student's background and the current context (Ethier & Deaux, 1994). If these two contexts are markedly different, the salience of the old identity should be greater than if there were little or no change. Advantaged students come from an environment where university attendance is common among their family members and peers and is also expected of them. By contrast, for disadvantaged students attending university is more likely to entail a change in in lifestyle and social networks (Reay, Crozier, & Clayton, 2010). By this reasoning, disadvantaged students should be more aware of their social background at university than advantaged students whose previous background more closely resembles their current context.

Indeed, research on identity compatibility supports this view. A longitudinal study by Jetten et al. (2008) showed that lower SES students were less likely to perceive their social background as being compatible with their new identity of being a university student and were therefore less likely to identify with university students as a group. This finding was replicated in another study (Iyer et al., 2009) where it was also found that identification with a new group (in this case university students) can help buffer individuals from the negative well-being consequences of change. That is, when the new identity is perceived to be incompatible with the existing identity network, the network stands in the way of identifying with, and thus adopting, the new group. As a result, well-being was negatively affected because the new identity was resisted in favour of the old one and a new sense of belonging could not be established. Therefore, we expect that the perceived compatibility between social identities is likely to influence how students from different backgrounds adapt to university, both socially and academically.

Successfully adopting a new identity when the context changes is likely to have positive influences. Stephens, Brannon, Markus and Nelson (2015) argue that in order for students to be successful at university they need to develop school-relevant selves – the sense that the pursuit of a university degree is central to who they are. When students experience this strong connection between their selves and what it means to be a university student, they will gain a sense that they fit into the academic environment and will be empowered to do what it takes to succeed there. However, the development of school relevant selves is not a natural consequence of attending university. Rather, school-relevant selves are a product of students’ ongoing experiences within particular socio-cultural contexts. Students will have a greater chance of performing to their potential when they have the sense that people like them – with backgrounds similar to their own – can fit in and succeed in the academic environment.

Low SES students have limited exposure to university-educated role models. The lack of role models can convey to these students that people ‘like them’ are not university material and that they may not have what it takes to excel at university, resulting in a lack of perceived fit. The experience of fit is important because it is thought to produce a sense of psychological safety and comfort and as a result students show an increased ability to adjust to the environment (Stephens et al., 2015). In the current study, we will therefore measure the relationship between perceived fit – as measured by university identification and belonging – and university adjustment.

The present research

Four studies were conducted to examine the process of individual mobility within higher education (see Figure 3.1 for the proposed model). More specifically, we examined the relationship between SES and social and academic integration. We expected that students from higher SES background would perceive their social background and attending

university as compatible with each other. Therefore, a positive relationship between SES and compatibility of identities was predicted. Furthermore, we expected that identity compatibility would be positively related to psychological fit – which is measured by levels of identification with university students and positive sense of belonging at university. We also expected that psychological fit would be positively related to academic adjustment, which in turn would lead to better academic performance.

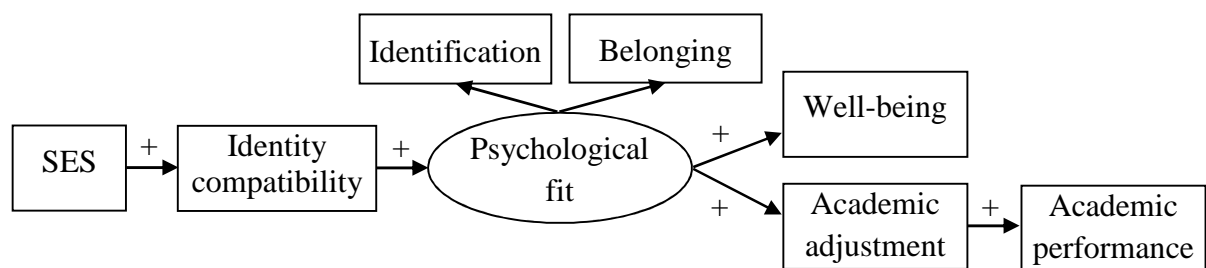


Figure 3.1.

The proposed theoretical model.

Study 1A

We first conducted a cross-sectional study with 1st year students from a relatively high status university within the UK into expectations of social and academic adjustment at university.

Method

Participants and Procedure

One hundred and eighty-three 1st year Psychology students at Cardiff University, UK participated in the study as part of a research session during their induction week, during the week before the start of their degree programme (September). The study was presented as a study of students' expectations of university life and students participated voluntarily. Academic performance data was collected at the end of the first year. The marks were obtained from the university authorities and were linked to the students' unique codes by an administrator who was the only person who had access to a list of the students' names and codes. In this way the marks could be matched to the questionnaire data without compromising the participants' anonymity. For 8 participants no academic performance data were available

and these students were excluded from further analyses. The final sample consisted of 175 students (91% female; $M_{\text{age}} 18.53$, $SD = 1.12$).

Measures

Social class is a multifaceted construct that contains both objective features of material wealth and access to resources (i.e., income, education) as well as conceptions of socioeconomic status rank compared to others in society (subjective SES; Piff, Kraus, Côté, Cheng, & Keltner, 2010). Therefore, as a measure of *social class*, objective and subjective measures were combined (3 items; $\alpha = .69$). We used a standardised measure from the European Social Survey (2012) to measure parent's education. Students were asked to indicate the highest level of education that both their father and mother had achieved on a 7-point response scale ranging from 'no qualifications' to 'PhD'. Furthermore, students had to indicate their own social class on a 7-point scale (1 = lower working class; 7 = upper class).

To measure *identity compatibility* between social background and attending university, participants were asked to think about whether their decision to attend university was consistent with a) their wider social background and b) their family backgrounds ($r = .43$). Participants could choose from seven sets of circles, ranging from (1) no overlap to (7) complete overlap, to provide their answer (based on Jetten et al., 2008).

Social identification was measured using three items (e.g., 'I expect to identify strongly with other university students'; $\alpha = .83$) to which participants responded on a 7-point scale (1 = strongly disagree; 7 = strongly agree).

Belonging at university was measured with four items (e.g., 'I think I will generally feel that people accept me at university'; $\alpha = .80$) to which participants responded on a 7-point scale (1 = strongly disagree; 7 = strongly agree). These items were adapted from the Sense of Belonging – Psychological State, Home and College Scale (Hagerty & Patusky, 1995).

To measure *academic adjustment* one item was used (i.e., ‘How well do you think you will adjust academically to your university?’) to which participants responded on a 5-point scale (1 = not well at all; 5 = very well). This was adapted from the Adjustment to College Index (Apsinwall & Taylor, 1992).

Five dimensions were used to operationalise *well-being*, each measured with one item. The dimensions were *positive affect* (i.e., ‘Thinking about myself and how I normally feel, in general, I mostly experience positive feelings’), *negative affect* (i.e., ‘Thinking about myself and how I normally feel, in general, I mostly experience negative feelings’) and *life satisfaction* (i.e., ‘Overall, I feel that I am satisfied with my life’), all of which were measured on a 10-point scale (1 = disagree strongly; 10 = agree strongly). Furthermore, we measured *depression* (i.e., ‘On a scale of one to ten, how depressed would you say you are in general’, anchors: 1 = not at all depressed; 10 = extremely depressed) and *anxiety* (‘On a scale of one to ten, how anxious would you say you are in general’, anchors: 1 = not at all anxious; 10 = extremely anxious).

Academic performance was measured by using the students’ overall mark at the end of their first year of study (measured in percentage from 0 to 100%).

Results

Means, standard deviations and correlations for all model variables are reported in Table 3.1.

Path Model

Because our sample size was not sufficient to construct a full latent variable model, we constructed observed variables (averaged across all items) for the unidimensional constructs. Given the strong association found between anticipated identification and anticipated belonging, we modelled these observed variables as indicators of a latent psychological fit factor, reflecting our theoretical framework.

Table 3.1.

Means, standard deviations and zero-order correlations of variables in Study 1A (N = 175).

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11
1. SES ^a	3.91	1.29	-										
2. Identity compatibility ^a	4.85	1.29	.49**	-									
3. Anticipated identification ^a	5.09	1.20	.15†	.25**	-								
4. Anticipated belonging ^a	4.68	1.27	.20**	.21**	.65***	-							
5. Anticipated academic adjustment ^b	3.62	.83	-.09	-.03	.09	.18*	-						
6. Positive affect ^c	6.36	2.00	.13†	.17*	.48***	.49***	.19*	-					
7. Negative affect ^c	3.87	2.11	-.11	-.11	-.49***	-.55***	-.15*	-.74***	-				
8. Life satisfaction ^c	7.15	2.03	.13†	.15*	.42***	.48***	.18*	.67***	-.60***	-			
9. Depression ^c	3.55	2.08	-.08	-.09	-.43***	-.51***	-.11	-.64***	.75***	-.58***	-		
10. Anxiety ^c	6.14	2.27	-.23**	-.18*	-.25**	-.40***	-.06	-.41***	.52***	-.27***	.49***	-	
11. Grades ^d	64.50	5.40	.01	.00	.03	-.09	.15†	.05	.03	-.05	-.01	.04	-

Note. ^a measured on a 7-point scale. ^b measured on a 5-point scale. ^c measured on a 10-point scale. ^d in percentages (0 – 100%).

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Well-being was constructed as a latent factor with five dimensions, namely life satisfaction (LS), positive affect (PA), negative affect (NA), depression (Dep) and anxiety (Anx), with the latter three measures loading negatively. The coefficients for the indicators of the latent factors psychological fit and well-being are reported in Appendix 3.2. The model (see Figure 3.2) specified socio-economic background (SES) of students as an exogenous predictor of identity compatibility, which then predicted anticipated psychological fit and anticipated academic adjustment. In turn, psychological fit predicted well-being, and academic adjustment predicted academic performance. Furthermore, we followed the modification indices by adding a covariance between the Positive Affect (PA) and Life Satisfaction (LS) observed variables. This model showed good fit indices according to Kline's (2005) criteria, $\chi^2(42) = 55.77, p = .076$, comparative fit index (CFI) = .980, root mean square error of approximation (RMSEA) = .043.

As expected, SES positively predicted identity compatibility, such that students with an advantaged background were more likely to perceive their background as compatible with being a university student ($\beta = .48, SE = .07, p < .001$). In turn, identity compatibility was positively related to the latent factor psychological fit (as measured by anticipated social identification and belonging), $\beta = .26, SE = .06, p = .002$, such that students perceiving a high level of identity compatibility were more likely to expect to fit into university. In turn, psychological fit was positively related to well-being ($\beta = .72, SE = .17, p < .001$). Identity compatibility was not related to anticipated academic adjustment however ($\beta = -.03, SE = .05, p = .741$). Finally, anticipated academic adjustment was positively related to academic year performance ($\beta = .15, SE = .49, p = .051$).

Discussion

As expected, students from higher SES backgrounds were more likely to perceive their background as compatible with being a university student. The greater the compatibility

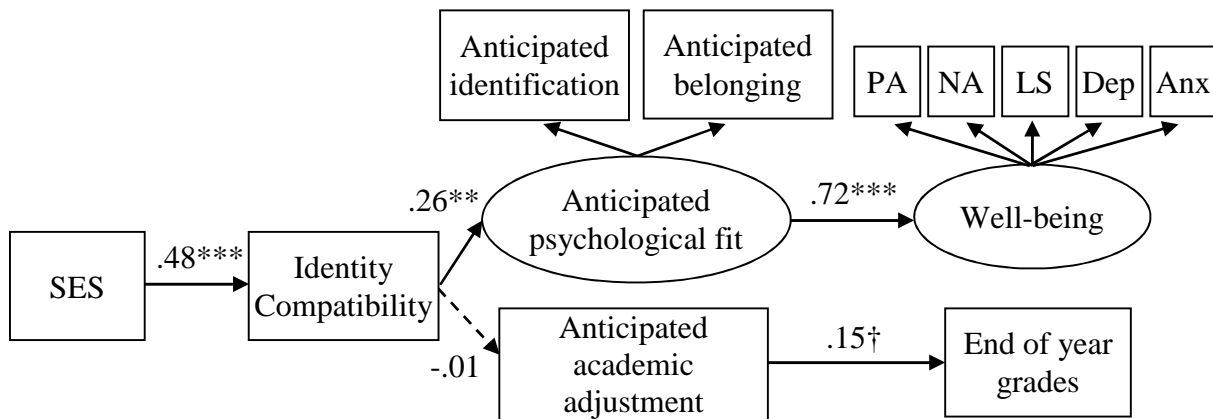


Figure 3.2.

Path model (Study 1A) showing the substantive paths with standardised estimates ($N = 175$). Solid lines are (marginally) significant and dashed lines are not significant. † $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

between old identity and university identity, the more students anticipated adjusting socially to university, which in turn was positively related to well-being. However, no effect of identity compatibility was found on anticipated academic adjustment and therefore identity compatibility did not have an *indirect* effect on student grades. In Study 1B we examined the effect of SES and identity compatibility on actual (rather than anticipated) social and academic adjustment.

Study 1B

In this study university adjustment was measured when students were 5 months into their 1st year. Furthermore, the sample consisted of 1st year students from a variety of courses, not only Psychology students, which also resulted in a more balanced sample in terms of gender.

Method

Participants and Procedure

One hundred and forty-one 1st year students at Cardiff University completed an online study on integration into university life and were entered into a prize draw as a reward for their participation. The study was advertised on the University's electronic Noticeboard. Mature

students ($N = 18$) were excluded from the sample because any integration issues they experience are likely to be different from those experienced by low SES students (Rubin & Wright, 2015). The final sample consisted of 123 1st year students (62% female; $M_{\text{age}} 19.39$, $SD = 1.33$).

Measures

The same items as those used in Study 1A were used to measure *social class* (3 items; $\alpha = .64$), *perceived compatibility of identities* (2 items; $r = .41$), *identification with university students* (3 items; $\alpha = .90$), *belonging at university* (4 items; $\alpha = .76$), and *academic adjustment* (1 item). Measures of well-being were not taken and academic performance data were not available for these participants.

Results

Means, standard deviations and correlations for all model variables are reported in Table 3.2.

Table 3.2.

Means, standard deviations, and intercorrelations of variables in Study 1B (N = 123).

	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. SES	4.01	1.20	-				
2. Identity compatibility	4.94	1.34	.51***	-			
3. Identification	4.99	1.40	.11	.26**	-		
4. Belonging	5.35	1.15	.14	.17*	.50***	-	
5. Academic adjustment	3.50	.99	.14	.18*	.12	.21*	-

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

Path Model

Because our sample size was not sufficient to construct a full latent variable model, we constructed a path model using observed variables (averaged across all items). As in Study 1, we modelled identification and belonging as indicators of a latent psychological fit factor. Both indicators significantly predicted the latent factor (identification: $\beta = .79$, $p < .001$; belonging: $\beta = .68$, $p = .017$). The model (see Figure 3.3) specified socio-economic background (SES) of students as an exogenous predictor of identity compatibility, which then

predicted psychological fit and academic adjustment. The model fitted the data well, $\chi^2(4) = 5.48, p = .241, CFI = .983, RMSEA = .043$.

As expected, SES positively predicted identity compatibility, such that students with an advantaged background were more likely to perceive their background and being a university student as compatible ($\beta = .50, SE = .09, p < .001$). In turn, identity compatibility was positively related to psychological fit ($\beta = .23, SE = .09, p = .028$), such that students perceiving a high level of identity compatibility were more likely to feel that they belong at university and to identify with university students. Furthermore, identity compatibility was positively related to academic adjustment ($\beta = .17, SE = .06, p = .047$).

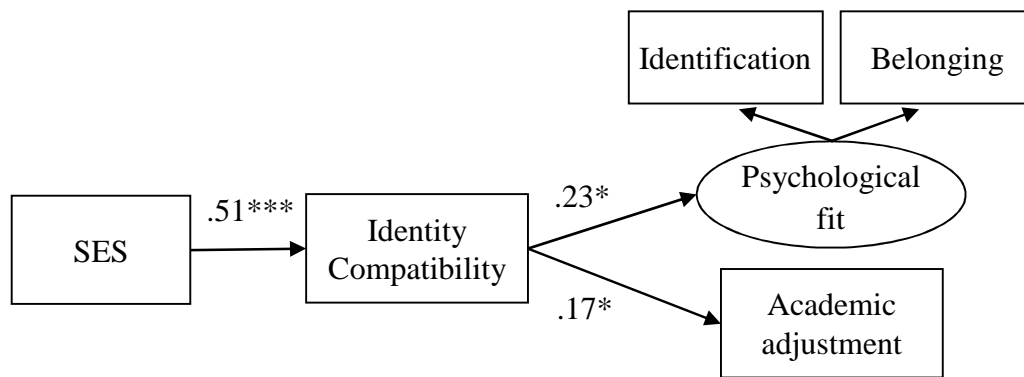


Figure 3.3.

Path model (Study 1B) showing the substantive paths with standardised estimates ($N = 123$).

* $p < .05$. *** $p < .001$.

Discussion

Study 1B provides further evidence that identity compatibility has a significant relation with social adjustment at university. Students who perceived their social background as compatible with being a university student were more likely to feel they fit into university. Furthermore, we also found that identity compatibility predicted academic adjustment (unlike Study 1A where no significant associations with *anticipated* academic adjustment were found). That is, students with compatible identities were more likely to find they adjusted

well to university academically. In Study 2, we further examine the impact of identity compatibility on academic adjustment.

Study 2

Study 2 improved upon Studies 1A and 1B in a number of ways. First, Study 2 examined the predicted associations longitudinally: we took measures of the key constructs one week before students started university and again when they were 6 months into their 1st year. Furthermore, we used more detailed measures of social identification and academic adjustment and we also measured academic performance and social detachment, an indicator of well-being.

Method

Participants and Procedure

Two cohorts of 1st year Psychology students at Cardiff University participated in the study as part of a research session during their induction week, during the week before the start of their degree programme (September, T1; N = 402). The study was presented as a study of students' expectations of university life. After being at university for 6 months all 1st year Psychology students received a follow-up email inviting them to participate in an online study about their experiences at university (March, T2; N = 220, a response rate of 55%).

Students participated in the first wave on a voluntarily basis and in the second wave in exchange for course credits. In order to match the questionnaires all students received a unique code at wave 1, which they then reported at the beginning of the questionnaires completed at each wave. The study was run in two consecutive academic years and the data from these years were combined to form one large dataset. Mature students (N = 5) were excluded from the sample. The final sample consisted of 215 first year students (92% female; $M_{\text{age}} 18.27$, $SD = .56$).

Measures

Time 1 measures. The same items were used to measure *social class* (3 items; $\alpha = .66$) as in Studies 1A and 1B. *Identity compatibility* was measured using two items ($r = .61$), which were slightly modified from the previous studies in order to improve the clarity and specificity of the items. The items now read ‘Think about whether your decision to become a university student is consistent with your general family and social background’ and ‘Now think more specifically about whether your decision to become a university student is consistent with your immediate family background (e.g., your parents’ education and occupation)’. In line with Studies 1A & 1B, participants could choose from seven sets of circles, ranging from (1) no overlap to (7) complete overlap, to provide their answer.

Time 2 measures. The same items were used to measure *belonging* (4 items; $\alpha = .83$) as in Studies 1A and 1B. *Social identification* as a Cardiff University student was measured with a 14-item scale (Leach et al., 2008), consisting of two subscales measuring self-investment ($\alpha = .88$) and self-definition ($\alpha = .84$). This was an improvement on Studies 1A and 1B, where the three-item measure of identification consisted mainly of self-investment items. The measurement of *academic adjustment* included the same item as in the previous studies (i.e., ‘How well do you think you adjust academically to your university?’ measured on a 5-point scale), with three additional items (e.g., ‘I am satisfied with my level of academic performance’) adapted from the Student Adaptation to College Questionnaire (SACQ; Baker & Siryk, 1989), and which were measured on a 7-point scale (1 = strongly disagree, 7 = strongly agree). The four items were standardised to form a reliable scale ($\alpha = .73$). *Social detachment* was measured using two subscales of the Utrechtse Homesickness scale (Stroebe, van Vliet, Hewstone, & Willis, 2002) by asking students ‘to what extent they had experienced the following in the past week’. The subscales included adjustment difficulties (4 items; $\alpha = .90$;

e.g., ‘Feeling lost in a new situation’) and loneliness (3 items; $\alpha = .81$; e.g., ‘Feeling lonely’) and the items were measured on a 5-point scale (1 = not at all; 5 = very strong).

Time 3 measure. We measured *academic performance* by using the students’ overall mark at the end of their first year of study (measured in percentage from 0 to 100%).

Results

Means, standard deviations and correlations for all model variables are reported in Table 3.3.

Measurement Model

We constructed a measurement model that consisted of 12 latent factors and two observed variables (see Figure 3.4). Because we only retained one of the two identity compatibility items,¹ this construct was included in the model as an observed variable, as well as academic performance which was measured using a single item. Similar to Studies 1A and 1B, we modelled identification (here using both subscales: self-investment and self-definition) and belonging as indicators of a second-order psychological fit factor. Furthermore, social detachment was constructed as a second-order factor with two dimensions, namely adjustment difficulties and loneliness. This model showed good fit indices, $\chi^2(409) = 571.13$, $p < .001$, CFI = .952, RMSEA = .047, with all indicators loading significantly on their respective factors ($\beta_s > .56$; $p < .001$; see Appendix 3.3).

Structural Model

The structural model specified socio-economic background (SES) of students as an exogenous predictor of identity compatibility at T1, which then predicted perceived psychological fit in university at T2, which in turn predicted academic adjustment and social detachment at T2. Academic adjustment was expected to predict students’ end-of-year

¹ The changes made in the two identity compatibility items resulted in a higher correlation among the items ($r = .61$ compared to $r = .40 - .45$ in Studies 1A and 1B). However, the correlation with the SES construct also increased, which was mainly due to the second compatibility item ($r_{\text{item1}} = .45$; $r_{\text{item2}} = .70$). Furthermore, the second compatibility item had similar relationships with the other model variables as the SES constructs. To avoid problems arising from multicollinearity we dropped the second compatibility item in Study 2.

Table 3.3.

Means, standard deviations, and zero-order correlations of variables in Study 2 (N = 215).

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1. SES (T1)	3.95	1.18	-							
2. Identity compatibility (T1)	4.73	1.54	.45**	-						
3. Identification – self-investment (T2)	5.69	.76	-.09	.07	-					
4. Identification – self-definition (T2)	4.90	1.08	.02	.16*	.56***	-				
5. Belonging (T2)	5.50	1.05	.09	.22**	.55***	.48***	-			
6. Academic adjustment (T2) ^a			-.02	-.02	.27***	.19**	.35***	-		
7. Social detachment – loneliness (T2)	2.10	.86	-.08	-.17*	-.35***	-.25***	-.57***	-.33***	-	
8. Social detachment – adjustment difficulties (T2)	2.11	.94	-.06	-.14*	-.33***	-.25***	-.51***	-.33***	.58***	-
9. Grades (T3)	64.51	5.37	.00	-.05	-.03	.04	-.03	.32***	-.05	-.02

Note. ^a standardised scale. * $p < .05$. ** $p < .01$. *** $p < .001$.

grades (T3). In addition, we included direct paths from SES and identity compatibility to academic adjustment and social detachment. The model fitted the data well, $\chi^2(411) = 584.19$, $p < .001$, CFI = .949, RMSEA = .048.

We first tested whether the structural model varied significantly between the two academic cohorts. No differences at the model-level were found. Furthermore, we tested path-by-path differences by constraining one path at a time to be equal across groups and used the chi square difference test to evaluate the model. None of the chi square difference tests (comparing the constrained and unconstrained models) were significant, thereby suggesting that constraining the parameters to be equal did not significantly reduce the fit of the model; thus none of the paths differed significantly across the academic cohorts (i.e., the model does not fit better when each cohort takes on unique parameter estimates). We were therefore confident that the two cohorts could be combined.

Next, we tested whether the parameter estimates were in the expected direction and statistically significant. As expected, SES positively predicted identity compatibility at T1, such that students with an advantaged background were more likely to perceive their background as being compatible with being a university student ($\beta = .45$, $SE = .07$, $p < .001$). In turn, identity compatibility was positively related to psychological fit at T2 ($\beta = .29$, $SE = .05$, $p < .001$), such that students perceiving a high level of identity compatibility were more likely to feel that they belong at university and to identify as a Cardiff University student. Finally, psychological fit positively predicted academic adjustment at T2 ($\beta = .21$, $SE = .06$, $p < .001$) and negatively predicted social detachment at T2 ($\beta = -.36$, $SE = .08$, $p < .001$), such that students who did not fit well into university were more likely to report having difficulties adjusting academically and to experience loneliness. Finally, reported academic adjustment positively predicted the grades students achieved at the end of their first year ($\beta = .35$, $SE = .83$, $p < .001$).

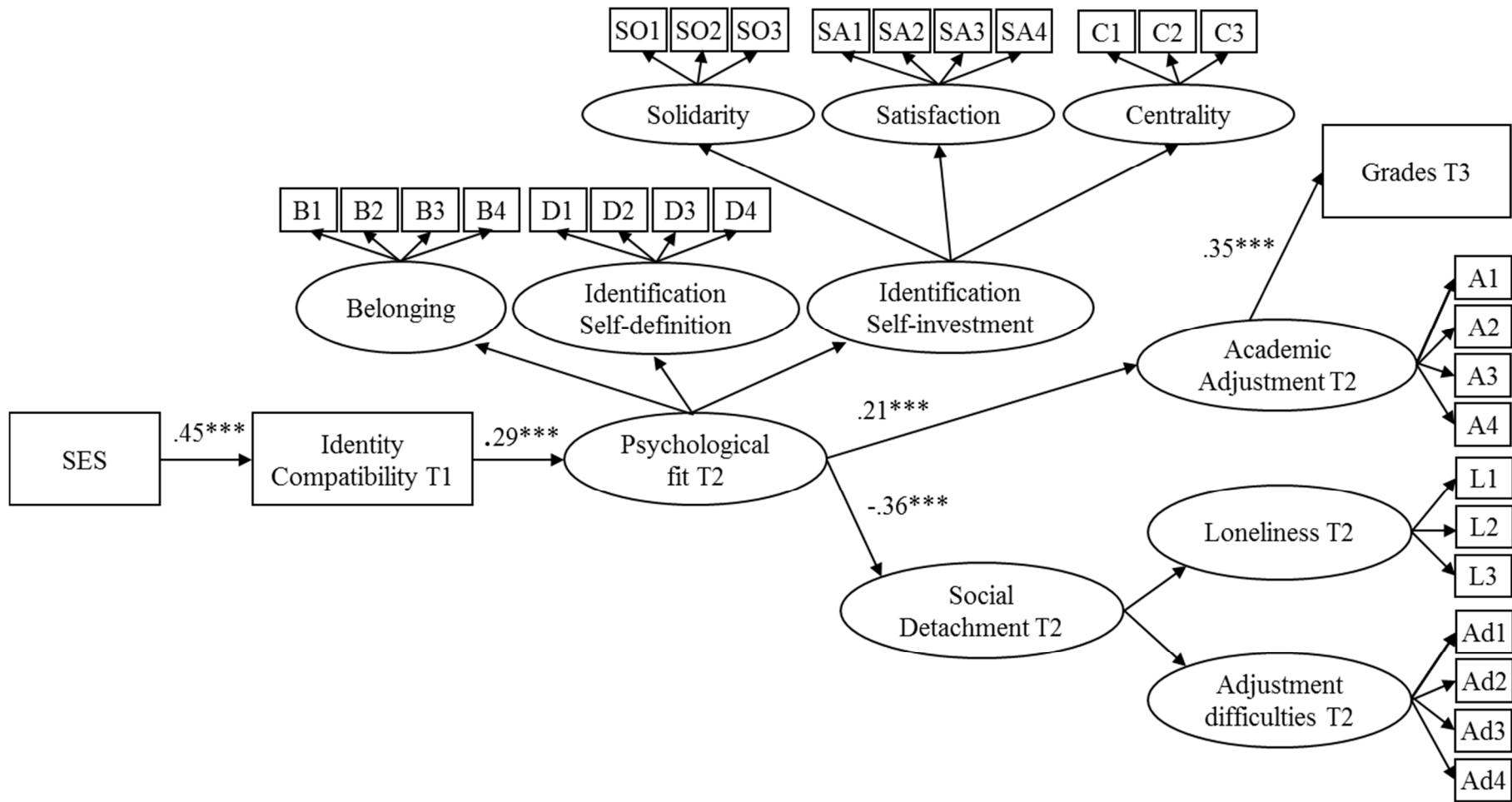


Figure 3.4.

Structural model (Study 2) showing the substantive paths with standardised estimates ($N = 215$). $*** p < .001$.

Discussion

In line with Studies 1A and 1B, the results of Study 2 show that students from high SES backgrounds were more likely to perceive their social background as being compatible with being a university student, which was associated with a higher level of social adjustment. Furthermore, the longitudinal design showed that perceived compatibility at the start of the academic year predicted social adjustment in the second semester. Thus students who viewed entering university as being compatible with their social background were more likely to adjust well to university life socially. In contrast to the results of Study 1B (but in line with those of Study 1A) no direct effect of identity compatibility was found on *academic* adjustment (see Table 3.3). Rather, identity compatibility predicted academic adjustment via psychological fit. That is, students who felt that they had a good psychological fit with university were also more likely to adjust academically, which in turn resulted in higher grades at the end of their first year. Furthermore, students who perceived that they had a good psychological fit with university were less likely to show signs of social detachment, an indicator of well-being. In Study 3, we examine more closely the effects of psychological fit on well-being. Furthermore, we explore the possibility that a self-affirmation intervention might attenuate the relationship between identity compatibility and psychological fit for disadvantaged students and thereby enhance their university experience.

Study 3

The strong relationships found between SES and identity compatibility in the previous studies indicate that lower SES students perceive university to be different from their social background and may therefore experience the university environment as a threat to their social identity. More specifically, low SES pupils might feel that their old identity is not valued in the new environment (i.e., value threat) or that they are not fully accepted into the new group (i.e., acceptance threat; Branscombe, Ellemers, Spears & Doosje, 1999), resulting

in the experience of uncertainty about belonging, stress, and discomfort (Steele, 2010). The value affirmation (VA) intervention, which involves students writing about their most important values, has been shown to help students from disadvantaged groups (e.g., ethnic minorities, women in math and science subjects, and low SES students) to cope with identity threat (Steele, 1988). When individuals affirm their core personal values in a threatening environment, they can re-establish a sense of personal integrity and worth, which bolsters them against challenges and reduces stress (see Sherman & Cohen, 2006, for a review). The VA intervention has been applied to educational achievement gaps and has been shown to reduce them. In our study we want to examine the effects on psychological fit at university. Self-affirmation is thought to work not by removing the threat itself, but more as a coping mechanism to deal with the threat. Cook, Purdie-Vaughns, Garcia and Cohen (2012) argue that VA is effective because it helps to reduce the threatening potential of negative experiences in school environments and thereby protects academic belonging. Building on this, we hypothesise that a VA intervention should help disadvantaged students to deal with the threat of identity incompatibility and thereby increase their perception of fit within university. We therefore expect a weakening of the relationship between identity compatibility and psychological fit for low SES students in the self-affirmation condition, in comparison to low SES students in the control condition. In addition to exploring the effects of a VA on psychological fit in this study, we examine the effects of psychological fit on well-being longitudinally.

Methods

Participants and Procedure

First year psychology students at Cardiff University participated in the study as part of a research session during their induction week, during the week before the start of their degree programme (September, T1; N = 181). The study was presented as consisting of two parts: the

part focusing on students' expectations of university life (the questionnaire) and the second part focusing on 'values and beliefs' (the intervention). Participants first completed a questionnaire that included demographic questions, as well as various self-report scales (see section Questionnaire Measures for more details). Then, participants were exposed to the intervention, in which they either completed a VA exercise or a control writing exercise (see section Experimental Design for more details).

An additional measurement was taken when students were one month into their first year (October, T1⁺; N = 129, a response rate of 71%). At this stage we administered the same questionnaire and the same intervention as at T1. Thus in total each student completed either two VA interventions or two control writing exercises of similar format and length.

After being at university for 5 months all 1st year Psychology students received a follow-up email inviting them to participate in an online study about their experiences at university (February, T2; N = 174, a response rate of 96%).

Students participated in the first wave on a voluntary basis and in the follow-up waves in exchange for course credits. In order to match the questionnaires all students received a unique code at wave 1, which were reported at the start of the questionnaire in subsequent waves. This code was also used to ensure that at T1⁺ students were assigned to the same condition that they had been assigned to at T1. Mature students (N = 3) were excluded from the sample. The sample descriptives are shown in Table 3.4.

Table 3.4.

Sample descriptives per wave (after listwise deletion)

Descriptives	Sample	
	T1 – T1 ⁺	T1 – T2
N	117	156
% female	91%	94%
<i>M</i> _{age} (<i>SD</i>)	18.65 (1.02)	18.90 (1.25)

Questionnaire Measures

Time 1 measures. The same items were used to measure *social class* (3 items; $\alpha = .74$) as in Studies 1A, 1B and 2. *Identity compatibility* ($r = .70$) was measured with the same two items as those used in Study 2.

Time 1⁺ measures. The same items were used to measure *social identification* (3 items; $\alpha = .85$) as in Studies 1A and 1B. *Belonging* was measured using the same four items as in the previous studies, although two additional items were added, one positive (i.e., ‘I feel that I’m making good friends at university’) and one negative (i.e., ‘I am worried that my background and experiences are so different from those around me in university’). This resulted in two subscales, one with three positive items (i.e., acceptance, $\alpha = .88$) and one with three negative items (i.e., rejection, $\alpha = .82$). This was done because previous research on the effect of value affirmation on achievement in ethnic minorities has found that the affirmation intervention did not boost achievement but instead slowed its decline. As a result, the downward trend that is common among ethnic minorities in education (Eccles, Lord, Midgley, 1991) was shown to be less steep among affirmed minorities. To examine this, we assessed whether disadvantaged students would feel less negative belonging (rather than more positive belonging) as a result of the value affirmation intervention.

Time 2 measures. The same measures of *belonging* ($\alpha = .87$) and *social identification* ($\alpha = .91$) were taken as the ones used at T1⁺. Four dimensions were used to operationalise well-being. *Positive and negative affect (PANAS)* were both measured using 10 items ($\alpha_{PA} = .87$; $\alpha_{NA} = .86$) assessing the extent to which participants generally felt excited, enthusiastic, ashamed, nervous, etc., about themselves and their life (Diener, Larsen, Levine & Emmons, 1985). All items were measured on a 5-point scale (1 = very slightly or not at all; 5 = very much). *Life satisfaction* was measured with 4 items ($\alpha = .90$; e.g., ‘In most ways my life is close to ideal’) on a 7-point scale (1 = strongly disagree; 7 = strongly agree; Diener,

Emmons, Larsen & Griffin, 1985). *Self-esteem* was measured with 10 items ($\alpha = .91$; e.g., ‘I feel that I have a number of good qualities’), also on a 7-point scale (1 = strongly disagree; 7 = strongly agree; Rosenberg, 1965).

The Intervention

Participants were blocked by generational status (first generation vs. continuing generation student) and were then randomly assigned to condition (affirmation vs. control). In each experimental condition participants were presented with 12 values: *athletic ability; being good at art; learning and gaining knowledge; creativity; independence; career; membership in a social group; music; politics; relationships with family and friends; spiritual or religious values; and sense of humour*. The values and procedures were similar to those developed and validated in past research (e.g., Cohen, Garcia, Purdie-Vaughns, Apfel, & Brzustoski, 2009; Creswell, Welch, Taylor, Sherman, Gruenewald, & Mann, 2005; Sherman, Bunyan, Creswell, & Jaremka, 2009).

In the value affirmation (VA) condition participants were instructed to select two or three values most important to them, and to describe in a few sentences why the selected values were important to them. Participants in the control condition were instructed to select the two or three values least important to them and to describe why these values might be important to someone else. In both conditions students were told not to worry about spelling or how well written their ‘essay’ was. To reinforce the manipulation participants were asked to list the top two reasons why these values were important to them (VA condition) or the top two reasons why someone else might pick these values as important (control condition). To encourage further reflection upon the values, participants were asked to indicate their agreement with 4 items (e.g., ‘In general, I try to live up to these values’ in the VA condition vs. ‘In general, some people try to live up to these values’ in the control condition).

Results

Means, standard deviations and correlations for all model variables are reported in Table 3.5.

Structural equation modelling

Item parcels. The relatively small sample size required the use of ‘item parcels’ rather than individual items, so we followed the procedures outlined by Little, Cunningham, Shahar, and Widaman (2002) to construct parcels (i.e., an aggregate-level indicator comprised of the average of two or more items) for most of our scales. We did not create item parcels for SES, identity compatibility and social identification variables because of the small number of items in these scales (≤ 3 items). For the remaining scales (i.e., belonging, positive affect, negative affect, life satisfaction and self-esteem), we followed Little et al.’s recommendations for unidimensional constructs. We applied an item-to-construct balance procedure to construct three equally balanced item parcels for each scale. In short, this procedure included specifying a single-construct model for each scale, including all items that were associated with the construct. Then the factor loadings were used as a guide to form the parcels. In the first selection, the three items with the highest factor loadings anchored the three parcels. In the second selection, the three items with the next highest factor loadings were then added to the anchors in an inverted order (i.e., the highest loading of the first selection was combined with the lowest loading of the second selection). For subsequent selections, the lower loading items were placed with more highly loaded parcels (Little et al., 2002).

Measurement model. We constructed a measurement model that consisted of eight first-order factors and one second-order factor (see Figure 3.5). This model showed adequate fit indices according to Kline’s (2005) criteria, $\chi^2(186) = 278.63$, $p < .001$, CFI = .959, RMSEA = .057, with all indicators loading significantly on their respective factors ($\beta_s > .63$, $p_s < .001$; see Appendix 3.4).

Table 3.5.

Means, standard deviations, and zero-order correlations of variables in Study 3 (Ns range from 117 to 156).

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1. SES (T1)	4.07	1.30	-									
2. Identity compatibility (T1)	4.44	1.70	.50***	-								
3. Social Identification (T1 ⁺)	5.19	1.07	.03	.21*	-							
4. Belonging (T1 ⁺)	5.34	.95	.12	.22*	.64***	-						
5. Social identification (T2)	5.18	1.24	.02	.15†	.67***	.55***	-					
6. Belonging (T2)	5.27	1.05	.06	.21**	.54***	.73***	.73***	-				
7. Positive affect (T2)	3.16	.70	.06	.05	.28**	.14	.41***	.34***	-			
8. Negative affect (T2)	2.13	.71	.03	-.07	-.20*	-.24**	-.30***	-.41***	-.14†	-		
9. Life satisfaction (T2)	5.01	1.15	.03	.16*	.36***	.40***	.56***	.54***	.42***	-.31***	-	
10. Self-esteem (T2)	2.85	.52	.05	.15†	.21*	.40***	.36***	.51***	.40***	-.47***	.54***	-

Note. For T1–T1⁺ correlations, N = 117 ; for T1–T2 correlations, N = 156 ; for T1⁺–T2 correlations, N = 122.

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Structural model. The structural model specified socio-economic background (SES) as an exogenous predictor of identity compatibility at T1, which then predicted perceived psychological fit in university at T2 (as measured by social identification and belonging). In turn, psychological fit predicted positive affect, negative affect, life satisfaction and self-esteem at T2. Furthermore, we allowed the four well-being factors to covary with one another. The model fitted the data adequately, $\chi^2(195) = 285.60, p < .001, CFI = .960, RMSEA = .055$.

We then examined whether the parameter estimates were in the expected directions and statistically significant. As expected, SES positively predicted identity compatibility, such that students with an advantaged background were more likely to perceive compatibility between their background and being a university student ($\beta = .69, SE = .12, p < .001$). In turn, identity compatibility was positively related to psychological fit ($\beta = .20, SE = .08, p = .028$), such that student perceiving a high level of identity compatibility were more likely to feel that they belong at university and to identify with Cardiff University students. Finally, psychological fit positively predicted each of the well-being dimensions: positive affect ($\beta = .45, SE = .06, p < .001$), negative affect ($\beta = -.42, SE = .06, p < .001$), life satisfaction ($\beta = .66, SE = .09, p < .001$) and self-esteem ($\beta = .53, SE = .05, p < .001$).

Self-affirmation intervention

Analytic strategy. The three primary outcome measures were positive belonging (i.e., acceptance), negative belonging (i.e., rejection) and social identification. The data were analysed with multiple regression models with identity compatibility at T1 (standardised continuous variable), affirmation condition (0 = control; 1 = VA intervention) and generational status (0 = continuing generation students; 1 = first generation students) as predictors. Apart from the main effects, we also included all two-way interaction terms

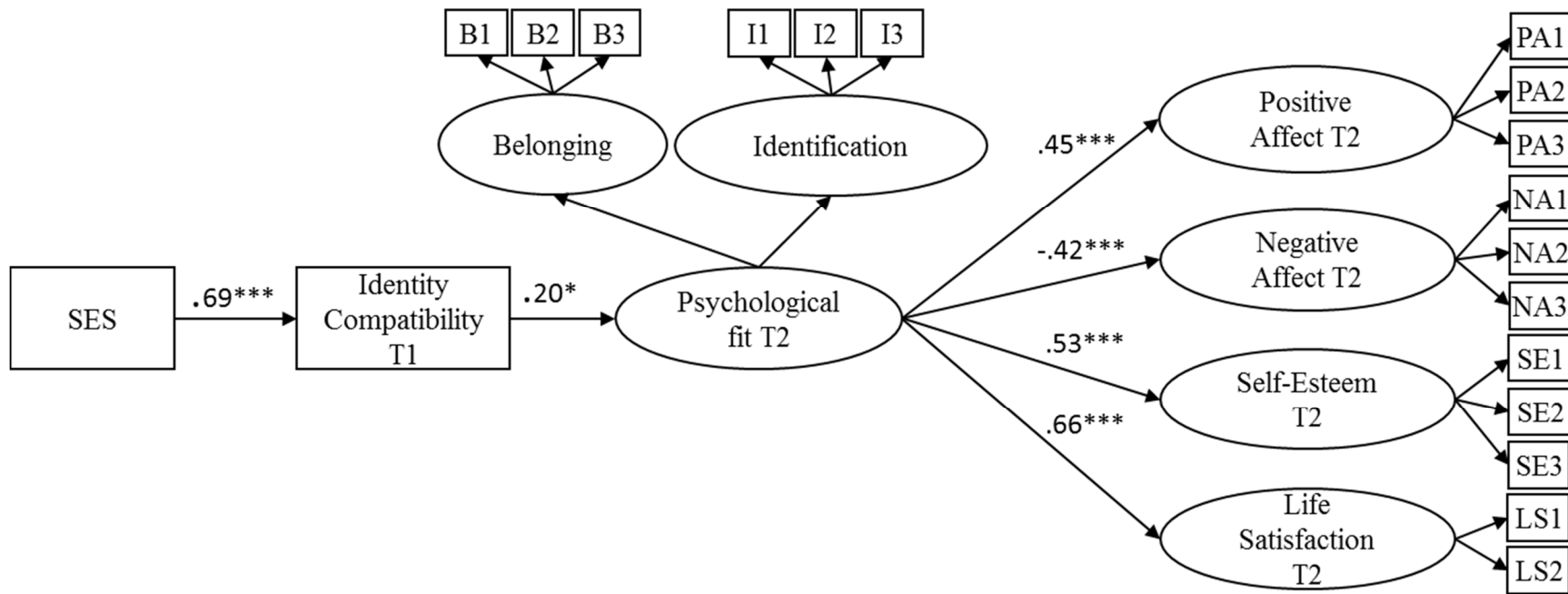


Figure 3.5.

Structural model (Study 3) showing the substantive paths with standardised estimates ($N = 156$). $* p < .05$. $*** p < .001$.

between identity compatibility, affirmation condition and generational status, as well as the three-way interaction term.

Negative belonging. First, we examined the short-term effects on negative belonging (at T1⁺). The three-way interaction approached significance, $t(114) = 1.57, p = .119, \beta = .30$, so we decided to follow this up with separate analyses for continuing (CGS) and first generation students (FGS). For the CGS the main effects of identity compatibility and affirmation condition, and the two-way interaction effects were not significant, $ts(68) > 1.5, \beta s < .25$. For the FGS, we found a significant main effect of compatibility, $t(46) = -3.19, p = .003, \beta = -.61$, and a marginal main effect of affirmation condition, $t(46) = 1.82, p = .076, \beta = .30$. However, these effects were qualified by a significant interaction, $t(46) = 2.22, p = .032, \beta = .46$. Next, we calculated the simple effects for the FGS and CGS (as a comparison) which are depicted in Figures 3.6 and 3.7. Simple effects for the FGS showed that within the control condition there was a significant effect of compatibility on negative belonging, $t(46) = -3.19, p = .003, \beta = -.61$. This implies that in the control condition, FGS with lower levels of identity compatibility were more likely to feel rejected. However, within the self-affirmation condition this effect had disappeared, $t(46) = .02, p = .983, \beta = .01$. This suggests that within the affirmation condition, perceptions of incompatibility in FSG students did not have a negative impact on feelings of rejection anymore.

Next, we examined the long-term effects on negative belonging (at T2). To test our hypothesis we examined the three-way interaction term, which was not significant, $t(151) = .37, p = .713, \beta = .06$. In addition, no significant two-way interactions were found, $ts(151) > 1.3, \beta s < .22$. When examining the main effects, we found a significant effect of compatibility on negative belonging, $t(151) = -2.26, p = .025, \beta = -.22$. As expected, students who reported higher identity compatibility were less likely to feel rejected. Together, these findings suggest that the value affirmation intervention had a short-term effect on the relationship between

compatibility and negative belonging for FGS students, but this effects did not sustain in the long-term.

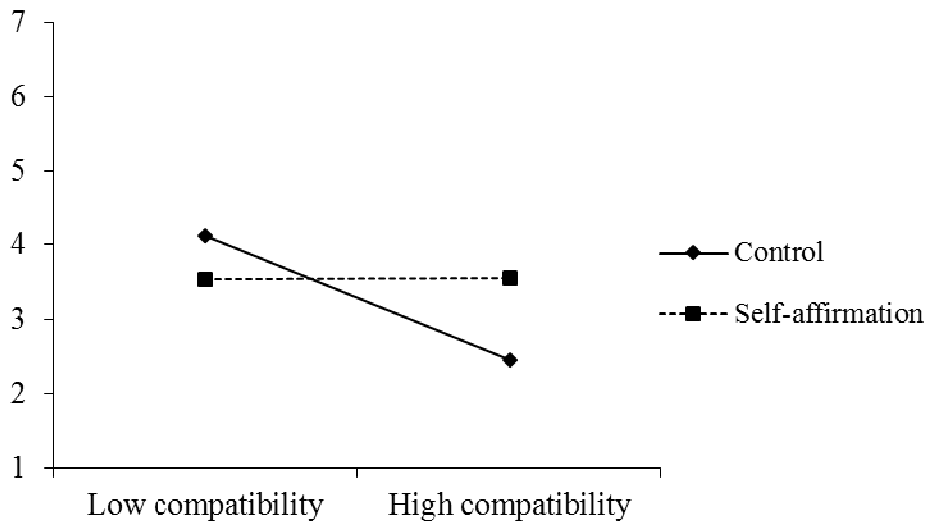


Figure 3.6.
Simple slopes for FGS for short-term negative belonging (i.e., rejection).

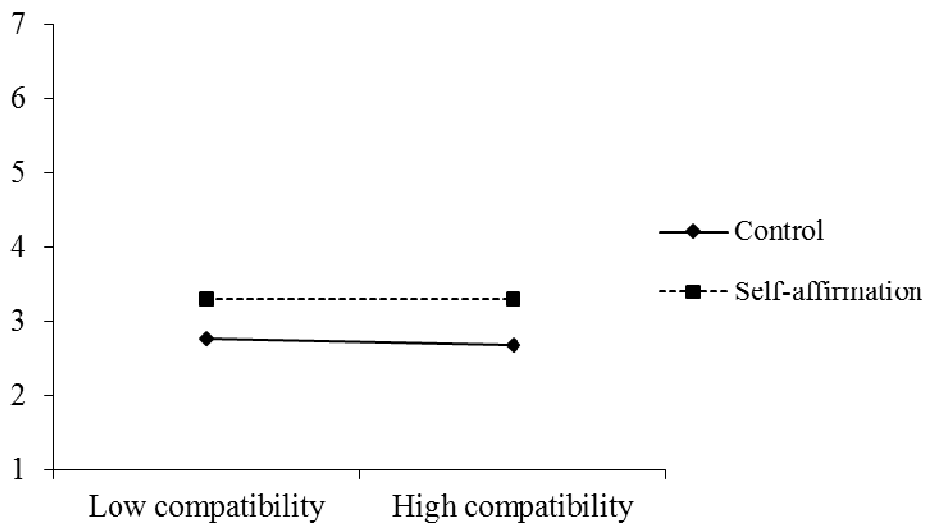


Figure 3.7.
Simple slopes for CGS for short-term negative belonging (i.e., rejection).

Positive belonging. Next, we examined the short- and long-term effects on positive belonging (at T1⁺ and T2). To test our hypothesis we examined the three-way interaction for both outcome measures, but neither effect was significant, $t_{\text{short-term}}(114) = -.01, p = .994, \beta = -.01$; $t_{\text{long-term}}(151) = -.67, p = .505, \beta = -.11$. These findings suggest that the value affirmation

intervention had no short- or long-term effect on the relationship between compatibility and positive belonging for FGS students (or CGS students).

Social identification. Finally, we examined the short- and long-term effects on social identification (at T1⁺ and T2). To test our hypothesis we examined the three-way interaction for both outcome measures, but neither effect was significant, $t_{\text{short-term}}(114) = -.21, p = .835, \beta = -.04$; $t_{\text{long-term}}(151) = .30, p = .765, \beta = .05$. These findings suggest that the value affirmation intervention had no short- or long-term effect on the relationship between compatibility and social identification for FGS students (or CGS students).

Discussion

In line with the previous studies, the results of Study 3 show that students from high SES backgrounds were more likely to perceive their social background as being compatible with being a university student. Higher compatibility was associated with a higher level of psychological fit when students were 5 months into their university degree. In turn, greater psychological fit was positively associated with well-being, as measured using multiple indicators.

The results of the value affirmation intervention were inconclusive. We found some evidence for our hypothesis that the VA exercise would attenuate the relationship between identity compatibility and psychological fit for low SES students, but these effects were only found for negative belonging in the short-term (i.e., one month after the intervention). No effects were found on positive belonging and social identification.

Several factors might have weakened the impact of the intervention. First, the sample size per condition may have been too small to detect any effects, especially due to the relatively low number of first generation students. Furthermore, Cohen, Purdie-Vaughns and Garcia (2012) have argued that the success of the VA intervention depends on students perceiving the writing exercise as a course assignment coming from the instructor. The

exercise has to be presented in class, so that students see it as an integral part of the course. However, the current study was run in a research session in the induction week in which incoming students learned about research in the department and completed a number of studies. In sum, although this was a useful first exploratory study into the potential positive effect of self-affirmation on weakening the relation between identity incompatibility threat and university fit, further studies are needed to examine this hypothesis more thoroughly.

GENERAL DISCUSSION

Higher education can be seen as an important upward mobility route because it provides students from disadvantaged backgrounds with a means of improving their individual position in society. Most research has defined mobility as an issue of *access*, implying that once the upwardly mobile have entered higher education (or another high status group), they have successfully climbed the social ladder. However, research suggests that students from disadvantaged backgrounds are less successful in higher education – socially and academically – than their more advantaged counterparts (Arulampalam et al., 2005; Engstrom & Tinto, 2008; Robbins et al., 2006), and have lower occupational success (Hussain et al., 2008). Even though these upwardly mobile students may be more successful than their parents were, they still are more likely to have a lower social standing than their more advantaged counterparts who pursued the same higher education path. The current research showed that social identity factors play a relevant role in explaining these differences in outcomes.

In four studies we demonstrated that disadvantaged students – in the context of a high status university – were less likely to regard attending university as consistent with their social background. As a result, disadvantaged students were less likely to feel that they fitted into university. The longitudinal analyses in Studies 2 and 3 showed that identity compatibility at the start of the academic year predicted psychological fit in the second

semester. Thus individuals were more likely to take on the new identity as a university student and felt a greater degree of belonging when their social background was compatible with the new context they were entering. Our findings are consistent with those of previous studies on identity compatibility (Jetten et al., 2008, Iyer et al., 2009), which were also conducted in a UK university. The longitudinal findings of those studies showed a positive relationship between identity compatibility and social identification as a university student when students were two months into their degree. Our findings add to that by showing that this relationship still exists when students are 6 months into their degree. Future studies could examine how identity compatibility develops over time, when students get further into their degree. A study on gender–STEM (science, technology, engineering, and mathematics) compatibility suggests that identity compatibility is not a stable construct that increases or decreases over time, but rather that it fluctuates in response to negative academic experiences (Ahlqvist, London & Rosenthal, 2013).

Whereas Iyer et al. (2009) and Jetten et al. (2008) only examined the effects of identity compatibility on social identification, we argue that in the case of a change in group membership it is relevant to examine not only the willingness of the upwardly mobile to adopt the new identity as a university student, but also the extent to which they are *accepted* as a group member by members of the higher status group. We argue that although belonging and identification are separable psychological experiences, they are also mutually reinforcing. In other words, the presence of one is likely to shape, create, and afford the experience of the other. In one direction, a sense of social belonging – being accepted as a group member – is likely to increase students’ motivation to adopt the new identity as a university student. In the other direction, identification as a university student is likely to increase the feeling that being a university student is central to who they are. Once this notion has been established they are

more likely to feel a sense of belonging in university. However, more research is needed to examine the ways in which these constructs influence each other.

Furthermore, we found in these studies that psychological fit predicted levels of well-being, academic adjustment and performance. These findings are in line with those of Iyer et al. (2009), who found that when students adopted the new identity of university student this had positive consequences for their well-being. Our findings add to that by showing the positive association between psychological fit and academic adjustment and performance and thereby increasing insight into why low status group members do not always achieve the same outcomes as their higher SES counterparts. This is relevant in order to make efforts to engage in individual mobility (such as lower SES students going to university) more successful.

Our findings support the theorising of Stephens et al. (2015) who argue that in order for students to be successful at university they need to be able to develop school-relevant selves (i.e., seeing being a university student as central to who they are), which is characterized by feelings of being included and a sense of empowerment. Future research could examine the role of empowerment, which was not measured in the current studies. Empowerment refers to a sense of entitlement, efficacy, and control over their experience (e.g., Gurin, Nagda, & Zuniga, 2013). Stephens et al. (2015) argue that with the sense of ownership that comes with empowerment, students are more likely to influence their situation and seize available opportunities (e.g., asking questions after a lecture). Therefore, empowerment seems to be a relevant additional psychological factor that could explain SES variations in the level of academic adjustment, performance and well-being at university.

Taken together, our findings suggest that social identity factors are important in explaining social and academic adjustment to university. These findings were found in first year students, examining both psychology and non-psychology student samples.

Limitations and future research

The aim of these studies was to account for the lower university adjustment and well-being of low SES students in high status educational contexts and the results therefore need to be interpreted within this context. We expect that that the level of identity compatibility and psychological fit disadvantaged students will perceive will depend on the number of students from disadvantaged backgrounds attending a particular university. Choosing a highly ranked university generally means that there are fewer students from low SES backgrounds and a greater likelihood of a lack of fit, although success in such a university increases the chances of improving one's position in society. In future research, it would be interesting to study how identity compatibility and perceived fit vary as a function of the social and academic standing of the institutional context.

The continuing struggle for those engaging in individual mobility is to decide how to reconcile past identity with present identity. Integrating into the new group should provide these upwardly mobile individuals with a sense of identity and security and should satisfy their belongingness needs, which can be a source of enhanced well-being (Baumeister & Leary, 1995; Lewin, 1948; Tajfel & Turner, 1979). However, this is not the only path the upwardly mobile can follow in order to take on their new identity. Taking on a core position in other groups (such as becoming part of a volunteering organisation, or becoming part of an organisation by getting a job) while at university may be sufficient to satisfy individual belongingness needs and allow the upwardly mobile to remain in a marginal position in relation to their new group (i.e., university students; see also Ethier & Deaux, 1994) and yet maintain relationships with their old group. Future research could examine the different strategies the upwardly mobile use in order to negotiate their position within their new group (Ellemers & Jetten, 2013).

In conclusion, past research has shown that students from disadvantaged backgrounds are less likely to adjust to university – both socially and academically. The current research found that identity compatibility and psychological fit are relevant social identity mediators that can account for this relationship. Despite the absence of clear supportive evidence from the current research, a self-affirmation intervention might be a useful way of dealing with the threat of identity compatibility and thereby increase the level of social and academic adjustment at university.

Chapter 4

Knowing one's academic place: The role of socio-economic status, academic performance and social identity factors in higher education choices

Getting a good education is typically seen as a way to improve one's position in society. At a societal level, education is perceived as an engine for social justice. To provide all individuals with equal opportunities, educational institutions aim to equip all students with knowledge, skills and capacities for learning so they can develop their potential (Bowen, Kurzweil, Tobin, & Pichler, 2005; Duru-Bellat, 2008). As well as this educational function, education has a selective function (Autin, Batruch, & Butera, 2015). That is, education is believed to help in assigning individuals to the academic and social positions that correspond to their ability and motivation. Most societies promote the meritocracy principle whereby social positions are based on merit, rather than other factors (Young, 1958/1994). More specifically, the principle is that "the association between individuals' social origins and their attainment must increasingly reflect only their level of ability – as other factors that might prevent the full expression of this ability are removed or offset" (Goldthorpe & Jackson, 2008, p. 4). Educational systems serve an important role in selection as they become the place where merit can be estimated and certified, relying on assessment methods rather than differences in social background (Carson, 2007). The selection function of education is therefore focused on ranking and social comparison. As a result, the influence of education on social positions is substantial and education has become a strong predictor of important life outcomes. Educational attainment has been linked to happiness (Chen, 2011; Cuñado & Gracia, 2011; Diener, 2000), health (Marmot, Ryff & Bumpass, 1997) and social trust (Huang, Maassen van den Brink & Groot, 2009) and this 'education effect' has been shown

to be relatively stable over time (covering 1986-2011 in the UK; Easterbrook, Kuppens, & Manstead, 2015).

Higher education also has positive outcomes for society as whole. Numerous studies have found a positive association between years of schooling and the economic growth of nations – although the magnitude of the impact varies considerably from study to study (Benhabib & Spiegel, 1994; Hall & Jones, 1999). A standard way to interpret this relationship is to argue that educational attainment (a) increases human capital, which refers to people's knowledge, skills, health and habits, resulting in the enhanced productivity of a nation's workforce; (b) increases the rate of technical innovation; and (c) facilitates the adoption of new production techniques. All these outcomes help to boost economic growth (Barro, 2001; Mincer, 1984). More recent research has found that it is not so much the amount of time that children spend in school that matters, but rather the knowledge, skills and habits they acquire both in and out of school. The cognitive skills of the population have been found to have more powerful and reliable associations with economic growth than years of education (Hanushek & Woessman, 2008).

However, the selection procedures used in education are not neutral. Research has long shown that meritocratic selection based on individuals' potentials is an illusion: the reality is that socio-economic status (SES) is still related to educational outcomes. Indeed, several international surveys have pointed to the fact that, compared to their socio-economically advantaged counterparts, disadvantaged students are more likely to underperform, repeat grades, drop out, and attain a lower level of education (OECD, 2010, 2013). As a result, disadvantaged individuals end up in lower status occupations than their advantaged counterparts, thereby reproducing the social hierarchy that existed prior to the educational process (OECD, 2010). Not only are these educational differences unfair; they also represent a waste of human talent and opportunity.

Most research on the relationship between SES and educational outcomes has focused on the role of academic performance, whereas in the current research we aim to focus on the role of social psychological factors. Although academic related variables play an important role in explaining the differences in educational outcomes attained by low and high SES individuals, they cannot explain them fully. For example, research examining access to higher education in three industrialized nations (Australia, US and England) shows that 27% to 52% of the social class gap in access to high status universities can be explained by factors unrelated to academic achievement (Jerrim, Chmielewski, & Parker, 2015). These findings suggest that even if young people have the academic ability to go to university, those from working class backgrounds are much less likely to enter high status institutions than their socially advantaged peers. As a result, students from ‘non-traditional backgrounds’ are disproportionately concentrated in less prestigious universities, and the opportunities and benefits of undergraduate study are therefore unfairly distributed. Indeed, graduates of more prestigious universities have been shown to be more likely to secure professional and managerial jobs and to earn higher salaries (Bratti, McKnight, Naylor, & Smith, 2004; Chevalier & Conlon, 2003; Hussein, McNally, & Telhaj, 2009).

Longitudinal research into higher education access that distinguishes between making applications to and receiving admission offers from high status universities in the UK suggests that for those from lower social class backgrounds, the unfairness appears to be largely to do with barriers to applying to high status universities (Boliver, 2013). Most of the studies that have focused on application to high status universities have been qualitative in nature and have typically found that more prestigious universities are perceived by those from non-traditional backgrounds to be the preserve of the privately educated, white upper-middle class (Ball, Davies, David, & Reay, 2002; Hutchings & Archer 2001; Reay, Davies, David, & Ball, 2001). Because social class is highly associated with prior achievement, it is

important to ask whether this association between social class background, ‘fitting in’ and choice of type of university remains once students’ examination grades are taken into account. A rare quantitative study suggested that indicators of social class do not directly predict choice of university in the UK (Mangan, Hughes, Davies, & Slack, 2010). Rather, the results of this study led the authors to explain the association between indicators of social class background and choice of university *indirectly* via examination grades, attending an independent school, proximity of a high-ranking university and fear of debt. However, social psychological factors, such as ‘fitting in’, were not taken into account in this study.

The role of social identity factors in higher education choices

In the current research we consider how university choice is predicted by subjective perceptions of group membership. Despite increasing numbers of working class students applying to university, for the most part their experience of the process of deciding which university to apply to is qualitatively different to that of their socially advantaged counterparts (Reay, 2005). For working class students, going to university is different from the career paths other family members have taken and it therefore means breaking away from their social background; by contrast, for their socially advantaged counterparts, going to university is in keeping with their social background, in the sense that one or both of their parents typically also went to university, and is therefore consistent with their group membership. According to social identity theory (Tajfel & Turner, 1979) and self-categorisation theory (Turner, 1982; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), group memberships are not external to a person’s sense of self; rather, they are typically internalised and incorporated into a person’s global sense of self (i.e., who they are, what they stand for, and what they do). Moreover, group memberships have positive implications for well-being and play an important role in helping individuals to adjust to the transitions

they experience in life (Haslam, Holme, Haslam, Iyer, Jetten, & Williams, 2008; Jetten, Haslam, & Haslam, 2012), such as entering university (Chemers, Hu, & Garcia, 2001).

Social identity theory (SIT) argues that people are motivated to achieve positive identities, that is, identities that are positively valued in society (Tajfel & Turner, 1979). For people from working class backgrounds this provides a challenge, because they have a low status within society. SIT suggests that low status groups (such as the working class) have several strategies for dealing with this. One of them is individual mobility, which refers to improving one's individual position in society. Especially for disadvantaged pupils, obtaining a university degree is regarded as a way to improve one's life conditions and become part of a group that is valued by society. Becoming a university student can give the upwardly mobile status and distinctiveness from others (especially from their social background) on comparison dimensions that are valued within society (e.g., ability, motivation), and provide a sense of meaning.

The ease with which one can construct a positive identity as a university student is likely to depend on one's existing identities, such as one's social background. For example, a student from a disadvantaged background may see this socioeconomic group membership as incompatible with becoming a student at a more prestigious university, where typical students are seen as coming from more advantaged backgrounds. When a new identity is perceived to be incompatible with an existing identity network, an individual's sense of continuity is likely to be disrupted (Iyer, Jetten, & Tsivrikos, 2008). Research on self-continuity suggests that people aim to maintain a stable sense of self over time (Breakwell, 1986; Sani, 2008). That is, they are motivated to see themselves as the same person, regardless of life changes. Thus, it is likely that when an existing identity network is perceived to be incompatible with the new identity, people will be less willing to take on the new group membership and may try to find a group that is more compatible with their current identity. Jetten, Iyer, Tsivrikos and Young

(2008) found that students entering university were more likely to identify as a university student when they thought their social background was compatible with being a university student. In the current research, we aim to examine whether identity compatibility predicts university choice in such a way that students from disadvantaged backgrounds are more likely to apply to universities that are seen as more compatible with their background.

Another identity factor that might play a role in university choice is the level of perceived fit with university. In qualitative research on students' choice of university, students from less advantaged backgrounds were more likely to indicate that they did not expect to fit into prestigious universities and were therefore more likely to settle for 'second best' universities (Reay et al., 2001). Researchers studying the effects of tokenism and solo status have generally found that individuals are uncomfortable in situations in which they feel too dissimilar from others (Brewer, 1999). Therefore, upwardly mobile students may be more likely to choose universities in which they think that they would fit in and would be able to successfully adopt a new identity as a university student. As such, *psychological fit* can be defined as the wish to be associated with a particular group (i.e., social identification), the perceived level of acceptance by members of that group (i.e., social belonging) and the extent to which a given university is seen as being open to and accepting of 'people like me' (i.e., subjective permeability).

The degree of perceived psychological fit is likely to depend on the university setting in question. In general, working class students pursue individual mobility in 'outgroup contexts', in the sense that universities (especially the more prestigious ones) are typically seen as being home to the middle class,. Intergroup comparisons are therefore quite salient in these settings. The level of psychological fit that low SES students perceive between themselves and a given university setting is likely to depend on the extent to which they see the situation in terms of 'us' (working class) vs. 'them' (middle class).

The extent to which intergroup comparisons are made within a specific context is theorised (Bruner, 1957; Turner, 1985) and shown (Oakes, Haslam & Turner, 1994) to depend on the level of comparative and normative fit. *Comparative fit* refers to the social organization of similarities and differences between people in a given context (Rosch, 1978; Turner, 1985). We use categories that minimize intra-class differences compared to inter-class differences (Reicher, Spears & Haslam, 2010). In the context of higher education, a (female) student from a low SES background might see more *similarities* between herself and people who share her background than between herself and typical university students, and more *differences* between people who share her social background and those who are typical students. As a result, she might group students into ‘students from working class backgrounds’ vs. ‘students from middle class backgrounds’. *Normative fit* arises from the (expected) *content* associated with similarities and differences between people (Tajfel, 1969; Reicher et al., 2010). Returning to the above example, the student from a low SES background might have a stereotype about university students (e.g., that they are middle class, well off and behave differently) and a different stereotype about people like her (e.g., that they are working class and relatively less well off). Comparative fit and normative fit often work hand in hand (see Oakes et al., 1994). If 'typical' students indeed look, speak and act differently from working class students (*comparative fit*) and these perceptual differences are consistent with social stereotypes (*normative fit*) then the categorisation of people into groups (‘them’ vs. ‘us’) is likely to be particularly strong. We expect that low SES students are more likely to see the situation in terms of 'them' and 'us' in the context of prestigious universities, and are therefore more likely to think that there is a lack of psychological fit between themselves and the particular university setting.

In the current research we examine whether students are more likely to choose to apply to universities where they expect to feel that they will fit in, as measured by the wish to

be associated with students at the university, perceptions of the possibility of forming good relations with other students at the university, and the extent to which ‘people like them’ are likely to be accepted by a particular university. Such feelings of fit are not stable, but rather are likely to depend on the specific university setting.

The proposed model

Research examining access to higher education shows that part of the social class gap in access to high status universities can be explained by factors unrelated to academic achievement (Jerrim et al., 2015). In the current research we propose that these factors are based in social identity constructs. We expect that pupils from a high SES background will perceive their background to be more compatible with being a university student than will their low SES counterparts (see Figure 4.1). Identity compatibility, in turn, should influence the perceived psychological fit with a particular university: the more identity compatibility students perceive, the more likely they are to expect to fit into a high status university. Psychological fit is defined by the perceiver’s expected level of belonging with other university students, the perceived permeability of the university (i.e., the extent to which the university accepts students ‘like them’), and the perceiver’s expected level of identification

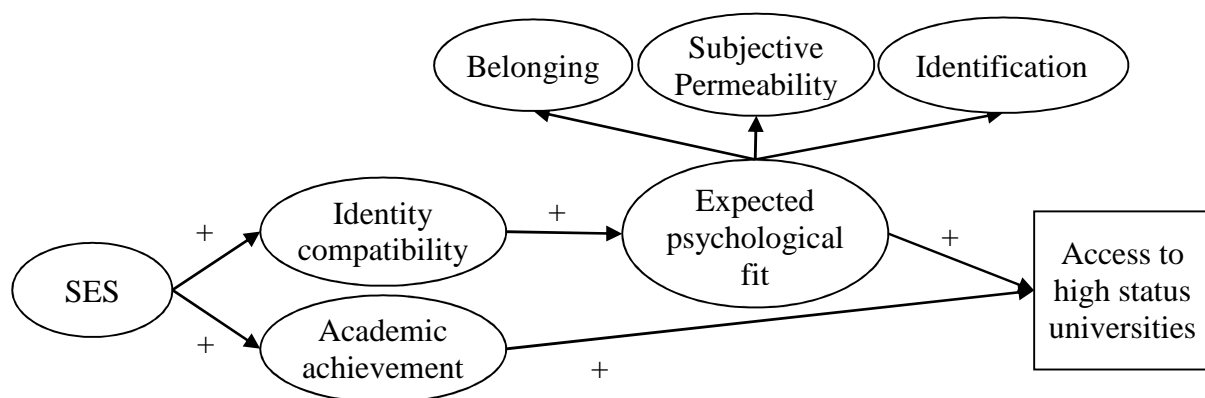


Figure 4.1.

Theoretical model in which access to high status universities is influenced not only by academic achievement (which is related to SES, i.e., the achievement gap), but also by social identity factors.

with students of the university. In turn, students who expect to fit well into a high status university are more likely to apply to a high status university. We examine these effects while controlling for the fact the students from high SES backgrounds gain higher grades than their low SES counterparts (i.e., the achievement gap), which makes them more likely to apply to higher status universities.

Study 1

We conducted a study with secondary school students in the UK. We investigated how academic grades, social background and social identity factors influenced their higher education decisions. More specifically, we examined how expected psychological fit with two local universities – one much more selective than the other – was related to the status of the universities students wanted to apply for, while controlling for the influence of academic achievement.

Method

Participants and procedure

Pupils were recruited from seven secondary state schools in South Wales. The initial sample consisted of 254 pupils, all from the year group consisting of pupils aged 16-17 years. The vast majority of pupils (>85%) were of White-British ethnicity, and the proportion of pupils receiving free school meals (an indicator of deprivation) varied between 6 and 25% per school (national average = 18%). The study was introduced by explaining that the researchers were interested in students' higher education decisions. Pupils completed paper-and-pencil questionnaires individually but in a group setting. The students received instructions before administration and were debriefed immediately afterwards. No difficulties in administration were observed and no problems with completing the questionnaire were reported. At the time of completion of the study (June) pupils were 1 year away from their final exams in secondary school (A-levels) and 6 months before the time at which they had to indicate

which universities they would like to apply for.² Students who had indicated on the questionnaire that they did not want to go to university ($N = 27$) were excluded from further analyses. Four statistical outliers were also excluded.³ The final sample consisted of 223 pupils (47.5% male; $M_{\text{age}} 16.85$, $SD = .35$). For more than half of these students (55%) neither parent had been to university.

Measures

*Parental education.*⁴ Pupils were asked to indicate the highest level of education that both their father and mother had achieved on a 7-point response scale ranging from ‘no qualifications’ to ‘PhD’ ($r = .48$), based on a standardised measure included in the European Social Survey (2012).

Identity compatibility. We measured the level of perceived compatibility between a student’s background and becoming a university student using two items ($r = .79$), based on Jetten et al. (2008): ‘To what extent do you feel your decision to become a student is consistent with your general family and social background?’ and ‘To what extent do you feel your decision to become a student is consistent with your immediate family background, for example your parents’ occupation?’ Responses were made on a 7-point scale (1 = not at all consistent; 7 = very consistent).

Psychological fit. We measured the student’s perceived level of psychological fit with two large universities in the same geographical region as the schools from which participants

² In Britain, potential students typically apply to a number of universities (up to 5), whose entry criteria can vary, before doing their A-levels (i.e., their final exams in secondary schools). Admissions to university are mainly based on students’ predicted A-level results (i.e., their performance as predicted by teachers). Because A-level results are only released a few weeks before the start of the academic year, students typically apply to a range of universities.

³ Global measures of influence (Cook’s distance and DFFit) and a measure of discrepancy (standardised deleted residuals) were examined. Only extreme cases (i.e., cases above conventional rule-of-thumb cut-offs) that had large gaps in values of influence or discrepancy relative to other cases were deleted (see Cohen, Cohen, West & Aiken, 2003).

⁴ We also asked students to indicate their own social class on a 7-point scale (1 = lower working class; 7 = upper class), to measure subjective social class. However, students had difficulty ranking themselves and the correlation with parental education was quite low ($r = .29$), so we therefore decided to drop this measure.

were drawn. These universities differ in academic reputation, as reflected in UK national university rankings. One of the universities is a member of a group of prestigious British research universities (the so-called ‘Russell Group’ of universities; subsequently referred to as a selective university; SU), whereas the other university has a lower ranking and a more applied focus (referred to as a less-selective university; LSU). The universities are of similar size and have similar student satisfaction scores (HEFCE, 2013). Psychological fit consisted of three constructs, which were all measured on a 7-point scale (1 = strongly disagree; 7 = strongly agree). *Social identification* was measured with three items ($\alpha_{SU} = .80$, $\alpha_{LSU} = .85$; e.g., ‘I expect to feel strong ties with other University X students’). *Belonging* was measured with two items ($\alpha_{SU} = .85$, $\alpha_{LSU} = .85$; e.g., ‘I am confident that I would fit in with others at University X’) and *permeability* was measured with one item (i.e., ‘University X is open to students like me’).

Academic ability. Pupils were asked to provide the grades they received on three core courses (English, Mathematics and Science; $\alpha = .83$) for their General Certificate of Secondary Education (GCSE) exams taken at age 15-16. The grades range from higher to lower (A*, A, B, C, D, E, F, G, U) and this scale was reverse-coded for analyses (1 = U; 9 = A*).

University status. Pupils were asked to indicate the top three universities they would like to apply to, and their answers were compared to the University League Table 2014 (which includes 124 universities and is reported in *The Complete University Guide*). Their answers were reverse-coded (1 = lowest ranking university; 124 = highest ranking university) and then averaged across their three choices ($\alpha = .63$).

Results

Preliminary analysis

Means, standard deviations and correlations for all model variables are reported in Table 4.1. To check for clustering (i.e., dependency among pupils within schools) the intraclass correlation (ICC) of all model variables was calculated, which measures the proportion of total variance that is accounted for by the clustering of the cases within schools and ranged between 0 and .20. Only parental education had significant school variation (ICC = .20). Bickel (2007) and Maas and Hox (2005) recommend taking clustering into account if $ICC > .10$. Because the number of clusters was smaller than 10 (i.e., 7 schools) we included school (as dummy variables) into the model as a predictor of parental education to account for the between-school variance (see Cohen, Cohen, West, & Aiken, 2013).

Table 4.1.

Means, standard deviations, and intercorrelations of variables in Study 1 (N = 223).

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9
1. Parental education	3.49	1.50	-								
2. Identity compatibility	4.48	1.80	.49***	-							
3. Identification LSU	4.30	.99	-.13*	.04	-						
4. Belonging LSU	4.68	1.24	-.21**	-.01	.66***	-					
5. Permeability LSU	5.22	1.37	-.21**	-.05	.52***	.52***	-				
6. Identification SU	4.68	.90	.12	.17*	.55***	.31***	.21**	-			
7. Belonging SU	5.39	1.05	.16*	.22**	.39***	.43***	.22**	.55***	-		
8. Permeability SU	5.47	1.20	.13	.25***	.15*	.15*	.36***	.41***	.50***	-	
9. Grades	4.35	.97	.36***	.14*	-.11	-.21**	.00	.16*	.10	.21**	-
10. University status	85.24	21.38	.40***	.19**	-.19**	-.30***	-.13	.08	.19**	.22**	.58***

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

Measurement Model

We first constructed a measurement model consisting of eight first-order factors and two second-order factors. Given the strong association found between social identification, social belonging and subjective permeability, we modelled these latent variables as indicators of a latent psychological fit factor, reflecting our theoretical framework (see Figure 4.2). This model had good fit indices according to Kline's (2005) criteria, $\chi^2(141) = 221.58, p < .001$, comparative fit index (CFI) = .965, root mean square error of approximation (RMSEA) = .045, with all indicators loading significantly on their respective factors ($\beta_s > .56; p_s < .001$; see Appendix 4.2 for factor loadings).

Structural Model

Next, we tested our theoretical predictions by adding paths to the measurement model (see Figure 4.2). The model specified socio-economic background (SES) of pupils as an exogenous predictor of grades (measuring the social class achievement gap), which then predicted university status. SES was also an exogenous predictor of the perceived compatibility between the participant's social background and being a university student, which then predicted expected psychological fit with each of the two universities, which then predicted university status. In addition, grades predicted expected psychological fit with each university and we also added the direct path from SES to psychological fit and to university status. We also controlled for the participants' school by including it as covariate on SES.⁵ The analyses revealed that the model fit the data well, $\chi^2(259) = 342.97, p < .001$, CFI = .962, RMSEA = .041. As expected, SES positively predicted grades, such that pupils with an advantaged background gained higher grades ($\beta = .44, p < .001$).

⁵ We also added covariances between the individual psychological fit items that were the same across both universities (e.g., between B1 LSU & B1 SU) to account for common method variance. Furthermore, we followed the modification indices by adding covariances between the Psychological Fit LSU and Psychological Fit SU second-order factors; the Mathematics and Science items; the two Belonging LSU items (B1 & B2); and the two Belonging SU items (B1 & B2).

In turn, pupils with higher grades were more likely to apply for a high-ranking university ($\beta = .58, p < .001$).

SES also positively predicted compatibility, such that pupils with an advantaged background perceived greater compatibility between their background and being a university student ($\beta = .62, p < .001$). In turn, pupils perceiving greater compatibility expected to fit in better with the selective university ($\beta = .24, p = .020$), but there was no significant association between compatibility and expected fit with the less-selective university ($\beta = .11, p = .151$). Instead, psychological fit with the less-selective university was predicted directly by SES, in such a way that socially disadvantaged pupils expected to fit better into the less-selective university ($\beta_{SES} = -.38, p = .007$).

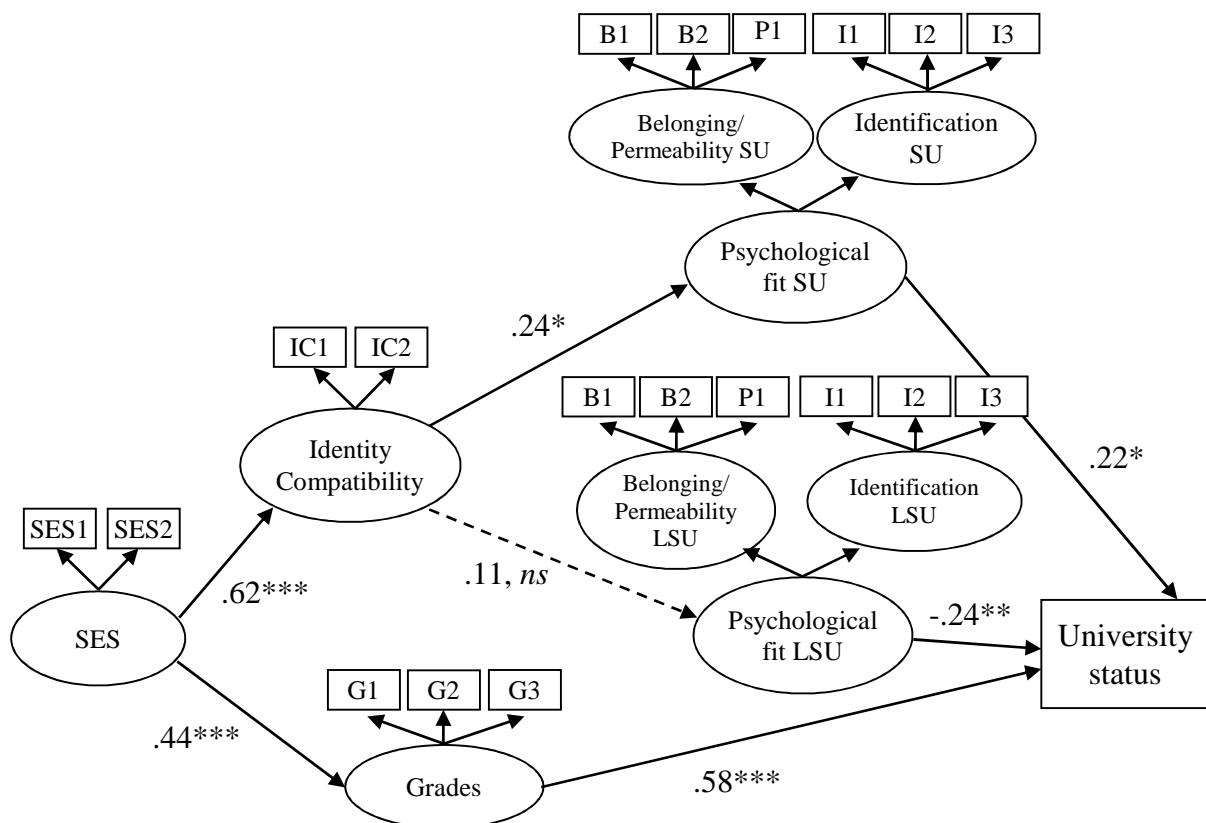


Figure 4.2.

Structural equation model (Study 1) showing the substantive paths with standardised parameter estimates ($N=223$). Solid lines are significant and dashed lines are non-significant. * $p < .05$. ** $p < .01$. *** $p < .001$.

No direct relations were found between grades and psychological fit with the less-selective university ($\beta_{\text{grades}} = -.16, p = .120$) or between SES and grades, on the one hand, and psychological fit with the selective university, on the other ($\beta_{\text{SES}} = .040, p = .751; \beta_{\text{grades}} = .089, p = .358$).

In turn, psychological fit predicted university status. That is, the higher the expected fit with the selective university, the more likely pupils were to intend to apply to a high-ranking university in general ($\beta = .22, p = .011$), whereas the higher the expected fit with the less-selective university, the more likely pupils were to intend to apply to a lower ranking university ($\beta = -.24, p = .009$). Furthermore, the direct path from SES to university status was not significant ($\beta = .06, p = .513$).

Discussion

The results of Study 1 showed that social identity factors play a significant role in explaining higher education choices among those from low SES backgrounds, even when controlling for academic performance. School students who expected to fit well into a selective university were more likely to apply for higher ranking universities in general, whereas the opposite was the case for school students who expected to fit well into a less selective university. Expected psychological fit, in turn, was influenced by levels of identity compatibility. A limitation of the current study is that we asked participants about their university application *intentions*. Participants were still six months away from the moment at which they had to make an actual decision about their applications, so their intentions might not have reflected their actual behaviour. In Study 2 we therefore examined a different sample. Furthermore, in Study 1 we only asked students about their perceptions of fit with two local universities, whereas typically students have to choose between multiple universities in the application process. To reflect reality, in Study 2 we therefore examined fit with three universities that differed in their degree of selectivity.

Study 2

In Study 2, we aimed to replicate the findings of Study 1 in another sample, namely students in their final year of secondary school (aged 17 or 18). Higher education choices should have been even more relevant for these participants. We also took the opportunity to expand the measurement of subjective permeability (which was only measured with one item in Study 1) so it could be included as an independent factor in the model as part of the psychological fit construct. A final change from Study 1 is that we now asked students to rate their anticipated psychological fit with three universities: in addition to the less-selective and selective university used in Study 1, we included a more prestigious university that is ranked even higher in the academic tables than the SU included in Study 1. Perceptions of universities and their students are not stable, but are likely to be influenced by the particular groups that form the comparative frame of reference (Spears & Manstead, 1989).

Method

Participants and procedure

The initial sample consisted of 337 pupils, all from the school year group consisting of pupils aged 17-18 years. Pupils were recruited from eight secondary state schools in South Wales. The vast majority of pupils at these schools (> 75%) were of White-British ethnicity, and the proportion of pupils receiving free school meals (an indicator of deprivation) varied between 6 and 22% per school (national average = 18%). As in Study 1, the research involved pupils completing paper-and-pencil questionnaires individually but in a class setting, with the rest of the procedure also being similar to that used Study 1. At the time of completion (November) pupils were only five months away from their final exams (A-levels) and 6 weeks away from having to indicate which university they would like to apply for. Students who indicated on the questionnaire that they did not want to go to university (N = 36) were excluded from further analyses. Of the remaining sample, a further 38 were

excluded for one or more of the following reasons: missing data on several (key) variables ($n = 27$), lack of motivation (e.g., reporting that they found the questionnaire boring, $n = 9$), and/or extremely low variance in responses ($SD < .15$, $n = 4$). Ten participants who were outliers on the variables included in the structural model were also excluded.⁶ The final sample therefore consisted of 253 pupils (41% male; $M_{age} = 17.32$, $SD = .57$). For more than half (57%) of these students neither parent had been to university.

Measures

*Parental education*⁷. This was assessed using the same two items that were used as in Study 1 ($r = .52$).

Social compatibility. Again, this was assessed using the same two items that were used as in Study 1 ($r = .78$).

Psychological fit. We measured the student's perceived level of psychological fit with three large universities that differed in academic reputation, as reflected in the UK university rankings. In addition to the two universities used in Study 1 (a non-research-intensive university, referred to as the less-selective university, LSU; and a selective university, referred to as SU), we also asked for the anticipated fit with a still more prestigious Russell Group university (hereafter referred to as the highly-selective university, HSU). This university is perceived to have a higher status than the other two universities, in that it is ranked more highly academically and has a much higher proportion of students who were privately educated (Paton, 2014). Although the HS university is slightly further away

⁶ As in Study 1, global measures of influence (Cook's distance and DFFit) and a measure of discrepancy (standardised deleted residuals) were examined. Only extreme cases (i.e., cases above conventional rule-of-thumb cut-offs) that had large gaps in values of influence or discrepancy relative to other cases were deleted (see Cohen, Cohen, West & Aiken, 2003).

⁷ As in Study 1, we also asked students to indicate their own social class on a social ladder (individual are asked to place an 'X' on the rung on which they feel they stand) to measure subjective social class (Adler & Stewart, 2007). However, students had difficulty ranking themselves and the correlation with parental education was quite low ($r = .27$), so we therefore decided to drop this measure.

geographically and is slightly smaller in size than the other two universities, it has similar student satisfaction scores (HEFCE, 2013). The expected psychological fit with the three universities was measured using three constructs, with all items measured on a 7-point scale (1 = strongly disagree; 7 = strongly agree). *Social identification* was measured with three items ($\alpha_{LSU} = .81$, $\alpha_{SU} = .78$, $\alpha_{HSU} = .79$; e.g., ‘I expect to feel strong ties with other University X students’). *Belonging* was measured with two items ($\alpha_{LSU} = .87$, $\alpha_{SU} = .83$, $\alpha_{HSU} = .83$; e.g., ‘I am confident that I would fit in with others at University X’). *Permeability* was measured with three items ($\alpha_{LSU} = .72$, $\alpha_{SU} = .73$, $\alpha_{HSU} = .76$; e.g., ‘University X is open to students like me’).

Academic ability. Pupils were asked to provide the grades (up to three) they expected to achieve in their upcoming A-level exams ($\alpha = .83$). The grades range from higher to lower (A*, A, B, C, D, E, F, G, U), and was reverse-coded for analyses (1 = ‘U’; 9 = ‘A*’) and then averaged across their three grades.

University status. As in Study 1, pupils were asked to indicate the top three universities they would like to apply to and their answers were scored with reference to the University League Table 2015 (which includes 123 universities and is reported in *The Complete University Guide*). Their answers were reverse-coded (1 = lowest ranking university; 123 = highest ranking university) and then averaged across their three choices ($\alpha = .70$).

Results

Preliminary analysis

Means, standard deviations and correlations for all model variables are reported in Table 4.2. To check for clustering (i.e., dependency among pupils within schools) the intraclass correlation (ICC) was calculated, which ranged between 0 and .03.

Table 4.2.

Means, standard deviations, and intercorrelations of variables in Study 2 (N = 253).

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12
1. Parental education	3.35	1.39	-											
2. Identity compatibility	4.23	1.82	.54***	-										
3. Identification LSU	4.62	1.26	-.14*	-.13*	-									
4. Belonging LSU	5.45	1.18	-.13*	-.15*	.63***	-								
5. Permeability LSU	5.62	1.01	-.02	.00	.23***	.26***	-							
6. Identification SU	5.38	1.02	.00	-.04	.34***	.18**	.18**	-						
7. Belonging SU	5.88	.88	-.06	.01	.17**	.35***	.22**	.47***	-					
8. Permeability SU	5.50	.95	.03	.03	.01	.09	.51***	.40***	.35***	-				
9. Identification HSU	5.05	1.08	.14*	.15*	.10	.002	.19**	.35***	.27**	.26***	-			
10. Belonging HSU	5.45	1.05	.03	.12	.12*	.24***	.24***	.20**	.46***	.25***	.54***	-		
11. Permeability HSU	4.97	1.11	.15*	.13*	.10	.08	.35***	.11	.24***	.49***	.44***	.37***	-	
12. Grades	7.36	.64	.19**	.15*	-.25***	-.26***	.12	.16*	.32***	.10	.20**	.02	.18**	-
13. University status	82.66	24.86	.18**	.13*	-.33***	-.26***	.10	.16*	.32***	.19**	.28***	.16*	.19**	.56***

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

Because the between school variation was low (ICC below .10) there was no need to take clustering into account in the model (see Bickel, 2007; Maas & Hox, 2005).

Measurement Model

We first constructed a measurement model consisting of 13 first-order factors and three second-order factors (see Figure 4.3). This model had good fit indices according to Kline's (2005) criteria, $\chi^2(346) = 512.21, p < .001$, comparative fit index (CFI) = .952, root mean square error of approximation (RMSEA) = .044, with all indicators loading significantly on their respective factors ($\beta_s > .54; p_s < .001$; see Appendix 4.3 for all factor loadings).

Structural Model

To test the hypothesized relationships between variables we added regression paths to the measurement model (see Figure 4.3). The model specified socio-economic background (SES) of pupils as an exogenous predictor of grades (measuring the social class achievement gap), which then predicted university status. SES was also an exogenous predictor of the perceived compatibility between one's social background and being a university student, which then predicted expected psychological fit with each of the three universities, which then predicted university status. In addition, grades predicted expected psychological fit with each university and we also added the direct path from SES to university status. Correlations were allowed among the three psychological fit factors⁸. The analyses revealed that the model fit the data well, $\chi^2(351) = 510.63, p < .001$, CFI = .955, RMSEA = .042.

The parameter estimates were in the expected directions and statistically significant. As expected, SES positively predicted grades, such that pupils with a more advantaged background gained higher grades ($\beta = .28, p < .001$). In turn, pupils with higher grades were more likely to apply for a high-ranking university ($\beta = .43, p < .001$).

⁸ We also added covariances between the individual psychological fit items that were the same across the three universities (e.g., between B1 LSU & B1 SU & B1 HSU) to account for common method variance. Furthermore, we followed the modification indices by adding covariances between two Social Identification LSU items (I1 & I3); two Social Identification HSU items (I1 & I3); two Permeability LSU items (P2 & P3).

SES also positively predicted compatibility, such that pupils with an advantaged background perceived more compatibility between their background and being a university student ($\beta = .71, p < .001$). In turn, pupils perceiving greater compatibility expected to fit in better with the highly-selective university ($\beta = .12, p = .072$) and less well with the less-selective university ($\beta = -.13, p = .048$); no relation was found with fit with the selective university ($\beta = -.05, p = .460$). Psychological fit was also predicted by grades. That is, pupils with higher grades expected to fit better into the selective university ($\beta = .23, p = .004$), and less well into the less-selective university ($\beta = -.26, p = .002$), whereas the effect of grades on expected fit into the highly selective university was not significant ($\beta = .10, p = .170$). In turn, psychological fit predicted university status. That is, the higher the expected fit with both the selective and the highly selective university, the more likely pupils were to apply to a high-ranking university in general ($\beta_{SU} = .19, p = .029$; $\beta_{HSU} = .17, p = .016$), whereas the higher the expected fit with the less-selective university, the more likely pupils were to apply to a lower ranking university ($\beta = -.27, p < .001$). The direct path from SES to university status was not significant ($\beta = .03, p = .68$).

Discussion

As in Study 1, social identity factors played a significant role in explaining higher education choices, independent of the effect of academic performance. School students who expected to fit well into a (highly) selective university were more likely to apply for higher ranking universities in general, whereas the opposite was the case for school students who expected to fit well into a less selective university. The nature of the relationships between identity compatibility and psychological fit was different compared to Study 1. In Study 2, school students who perceived their background to be compatible with being a university student were less likely to see themselves as fitting into a less-selective university and more likely to see themselves as fitting into a highly-selective university, but no association was

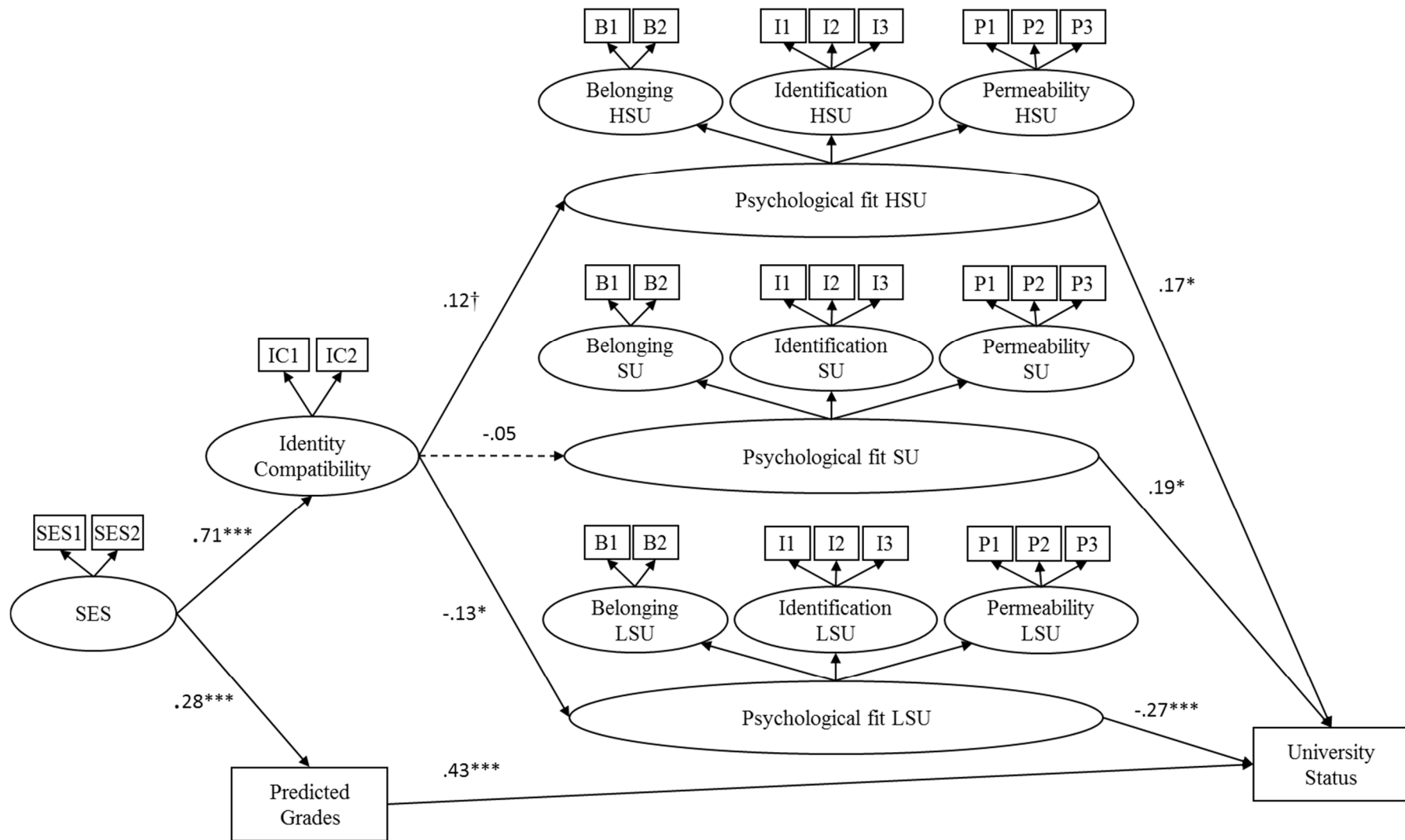


Figure 4.3. Structural equation model (Study 2) showing the substantive paths with standardised parameter estimates ($N=253$). Solid lines are significant, and dashed lines are non-significant. $\dagger p < .10$. $* p < .05$. $*** p < .001$.

found for the selective university (whereas we did find a positive and significant relation between identity compatibility and psychological fit with the selective university in Study 1). We believe that this is due to the anchoring provided by the presence of both the highly selective and the less-selective university. In this context, the selective university was unrelated to identity compatibility. Perceptions of universities and their students are not stable, but are likely to be influenced by the particular groups that form the comparative frame of reference (Spears & Manstead, 1989).

GENERAL DISCUSSION

According to social identity theory, people are motivated to hold positive identities (Tajfel & Turner, 1979). One way to achieve this is to improve one's position in society and strive for self-enhancement, following an individual mobility route. In a society where university education is in principle open to all, one would therefore predict that many, especially those from disadvantaged backgrounds, would pursue a university degree to improve their status in society. Yet, the statistics suggest otherwise. Despite the enormous growth of university entrants, class differences have not disappeared and indeed have remained fairly constant (Blackburn & Jarman, 1993; Blanden & Machin, 2004). Furthermore, for the most part students from disadvantaged backgrounds attend different universities to those attended by their advantaged counterparts (Boliver, 2011; Zimdars, Sullivan, & Heath, 2009). Even when controlling for the achievement gap (i.e., the fact that disadvantaged students in general attain lower grades than their more advantaged counterparts), disadvantaged students are less likely to apply for higher status universities (Jerrim et al., 2015). This implies that in addition to the motivations of self-enhancement and improving one's position in society, other motivations, such as identity continuity (i.e., the motivation to maintain a stable sense of self over time; Breakwell, 1986; Sani, 2008; Vignoles, Manzi, Regalia, Jemmolo, & Scabini, 2008; Vignoles, Regalia, Manzi, Gollledge, &

Scabini, 2006) and belonging (i.e., the motivation to maintain meaningful social relationships; Baumeister & Leary, 1995) also play a role in higher education choices.

For socially advantaged students it appears that all these motivations are aligned when applying for a high status university: admission to such an institution would enhance their status in society and provide economic benefits once they get their degree, be consistent with their social backgrounds and they would be likely to find similar others there. Indeed, in the current studies we found that socially advantaged students felt that their social background was compatible with being a university student and therefore expected that they would fit into a selective (Study 1) or highly selective (Study 2) university. These feelings of fitting in were based on expected identification with other students at that university, the expectation of being able to form meaningful relations with other students at that university, and the expectation that applicants like them would be accepted by the university.

By comparison, disadvantaged pupils face a dilemma: gaining entry to a high status university would help them to improve their status within society, but other motivations such as self-continuity and feelings of belonging would be less likely to be fulfilled. To be upwardly mobile it is often necessary for individuals to dissociate themselves from their former group, severing connections and thereby losing the benefits of their initial group membership (Ellemers, van Knippenberg, de Vries, & Wilke, 1988; Van Laar, Derks, Ellemers, & Bleeker, 2010). Indeed, in the current studies disadvantaged pupils were more likely to feel that their social background was incompatible with becoming a university student and they therefore expected to fit less well into a selective (Study 1) or highly selective (Study 2) university, but expected to fit better into a non-selective university (Study 2). Expected fit, in turn, predicted application choices: students expecting to fit into a selective or highly selective university were more likely to apply for higher ranking universities in general, whereas students expecting to fit into a non-selective university were

more likely to apply for lower ranking universities in general (Studies 1 & 2). These associations with expected psychological fit were found while controlling for the fact that socially advantaged pupils gained higher grades and were therefore more likely to apply for higher status universities (Studies 1 & 2).

Previous research into adjustment to university life has found that incompatibility perceptions are related to SES and predict long-term university identification and well-being in students who are already at university (Iyer et al., 2009; Jetten et al., 2008). The present studies add fresh insights by showing that identity compatibility also predicts *anticipated* adjustment to being a university student, which is associated with the type of universities students choose to apply to in the first place. Going to university is an important life transition for all students, and the present findings show that this identity change does not take place in a social vacuum. To understand how group members choose to take on new group memberships when faced with identity changes, one needs to understand how the new identity fits with previously established identities (Sani, 2008).

Although previous research had pointed to the importance of feelings of fitting in and belonging in higher education choices (e.g., Reay et al., 2001; Reay, 2005) the current studies are to our knowledge the first to examine this issue quantitatively. The main strength of this quantitative approach is that it allows researchers to control for the influence for academic performance, which is important given the large achievement gap between pupils from different SES backgrounds. The results of the current studies show that psychological fit has an independent effect on higher education choices, which explains why highly able students who come from socially disadvantaged backgrounds are more likely to settle for ‘second best’ universities.

Chapter 5

Conclusions, limitations and future directions

Contrary to the principles of meritocracy, the current thesis shows that individual mobility in the context of higher education is not simply a reflection of merit. Characteristics of the social structure, social identity factors and characteristics of the individual group member all influence the likelihood and attractiveness of using individual mobility as a strategy for self-advancement. In addition, the current thesis suggests that it is important to examine relative mobility. Relative mobility compares the chances of two individuals from different social groups ending up in one destination rather than another. By contrast, absolute mobility only considers the movement between social group origin and destination (Breen, 2004). Indeed, the current studies showed that even where it appears that members of low status groups are upwardly mobile in an absolute sense, they often fail to achieve the same degree of mobility as their higher status counterparts. That is, despite the fact that many students from low SES backgrounds do go to university, they are more likely to apply to lower ranking universities (independent of their academic achievement; see Chapter 4). These findings are in line with other research in the context of higher education showing that people from lower social class backgrounds, as well as being generally under-represented in UK higher education (Blackburn & Jarman, 1993; Blanden & Machin, 2004), are known to be especially poorly represented in the most prestigious universities (Boliver, 2011; Zimdars, Sullivan, & Heath, 2009).

In the current thesis I examined individual mobility not only in terms of access (i.e., getting into university), but also in terms of the success of those who do embark upon this route. In the context of higher education, students from low SES backgrounds have been found to leave university with lower grades (Robbins, Allen, Casillas, Peterson, & Le, 2006) and are less likely to complete their degrees (Arulampalam, Naylor, & Smith, 2005;

Engstrom & Tinto, 2008) and have lower occupational success (e.g., Friedman, Laurison, & Miles, 2015). They therefore ultimately achieve lower status positions than their more advantaged counterparts who follow a similar route. In line with such findings, the current studies showed that low SES students have lower outcomes at university than high SES students, in terms of both social and academic adjustment and academic performance (see Chapter 3).

To gain more insight into the underlying process, I focused on how structural factors and identity factors present a barrier to individual mobility and therefore help to explain why highly able members of relatively low status groups often avoid the most challenging (but also the potentially most rewarding) forms of social mobility. Furthermore, I examined why those who are upwardly mobile are often less successful once they have embarked upon this route. These ideas are represented in the theoretical model (see Figure 5.1). For the purposes of discussion, I will now discuss the relevant constructs examined in this thesis one by one, rather than repeating the discussion from Chapters 2-4. I will then use the remainder of the chapter to point towards future work that follows logically from the main conclusions (and limitations) of this thesis.

The role of permeability of group boundaries

In contexts that can be seen as stable and legitimate, the permeability of group boundaries is a social structural feature that is theorized in social identity theory (Tajfel & Turner, 1979) and has been shown to be the primary determinant of whether members of low status groups pursue a strategy of individual mobility (Ellemers, Van Knippenberg, De Vries, & Wilke, 1988; Ellemers, Van Knippenberg, & Wilke, 1990). In the present studies (see Chapter 2, Study 1) I showed that permeability is influential in a setting different to the one in which it has typically been investigated (Boen & Vanbaeselare, 2000, 2002; Wright, Taylor, Moghaddam, 1990). Rather than examining reactions to overt rejection or acceptance by the

high status group, I considered how students respond as observers of unequal hiring practices by a high status institution. The study was designed to parallel real-life situations, for example in which students are exposed to figures reflecting the participation of under-represented groups in prestigious universities. The permeability of the high status institution significantly affected individual mobility attitudes and intentions of low status group members, such that they were less positive when permeability was low. Thus, even when low status group members met the entry criteria for the high status position, they had lower intentions to apply when group boundaries were closed.

According to SIT, permeability refers not only to *actual* openness of group boundaries but also to “*people’s shared understanding*” (Haslam, 2004, p. 24) of group openness. In Chapter 4, we measured perceptions of permeability of institutions and examined how well this predicted individual mobility behaviour in real-world settings. It is worth noting that my notion of perceptions of permeability (noted as subjective permeability in the model, see Figure 5.1) differs slightly from the definition in SIT, because I focused on *individual* perceptions of openness and acceptance by the higher status group. In two studies I showed that pupils who perceived that regional selective or highly selective universities had low permeability were less likely to apply to higher ranking universities in general. As such, the current research, with the aim of paralleling real-life situations and examining mobility behaviour in real-world settings, found similar effects of permeability to those found in previous research. The current research has implications for real-world education settings. Prior research found that disadvantaged groups maintain positive perceptions of the higher status group and individual mobility beliefs even in conditions of low permeability (Danaher & Branscombe, 2010). Such effects demonstrate that tokenism, despite being harmful to low SES group members, prevents them from perceiving the true inequalities and thereby serves to maintain the status quo.

The role of individual ability

In line with previous studies (Boen & Vanbaeselare, 1998, 2000, 2001, 2002; Wright et al., 1990), the current studies show that individual ability is an important determinant of strategy choice. In Chapter 2, experimentally manipulated levels of individual ability had an independent effect on mobility attitudes and behaviour, such that highly able students were more likely to apply to high status institutions. In the real-world setting studied in Chapter 4, A-level students with higher grades were more likely to apply to higher status universities. The implications of these findings are that by fostering the perception that disadvantaged group members lack the criteria necessary for entry into a high status group, the advantaged group could reduce the likelihood of individual mobility attempts by disadvantaged group members (Wright et al., 1990). Furthermore, the findings in Chapter 4 show that school grades were strongly influenced by SES background, which is in line with research on the achievement gap (and is depicted in my theoretical model as the influence of low vs. high status group membership on individual ability; OECD, 2010). Ability (at least as reflected in formal grades) is less 'individual' than it is often assumed to be, in that it is strongly influenced by the context in which children grow up in and the expectations (both from the child and from his or her environment) that come with these contexts.

The role of psychological barriers

The current studies show that identity compatibility and its anticipated consequences (i.e., lack of belonging and identification and lower well-being) lead members of disadvantaged groups to refrain from engaging in individual mobility. This implies that, in addition to the motivations of self-enhancement and improving one's position in society, other motivations, such as self-continuity (i.e., the motivation to maintain a stable sense of self over time; Breakwell, 1986; Sani, 2008; Vignoles, Manzi, Regalia, Jemmolo, & Scabini, 2008; Vignoles, Regalia, Manzi, Golledge, & Scabini, 2006) and belonging (i.e., the

motivation to maintain meaningful social relationships; Baumeister & Leary, 1995), also play a role in individual mobility considerations. I consistently found that low SES pupils were less likely to perceive their background to be compatible with university (see Chapters 3 and 4). Critically, identity *incompatibility* predicted lower levels of anticipated belonging in, identification with and permeability of selective or highly selective universities and higher levels of anticipated belonging in, identification with and permeability of a less selective university (see Chapter 4). Thus it is not low status group membership itself that is problematic, but rather low status group members' *perceptions* of incompatibility of their current identity with the one associated with the new, higher status group. I argue that low SES pupils face a dilemma: on the one hand, they could gain entry to a high status university, which would help them to improve their status within society; on the other hand, motivations such as identity continuity and feelings of belonging would be less likely to be fulfilled (see also Iyer, Jetten, Tsivirkos, Postmes & Haslam, 2009). When low SES pupils engage in individual mobility it is often necessary to dissociate themselves from their former group in order to integrate successfully into the new group, severing connections and thereby losing the benefits of their initial group membership (Van Laar, Derks, Ellemers, & Bleeker, 2010). In the studies reported in Chapter 4, I showed that anticipated perceptions of (lack of) fit in the high status group decreased the likelihood of applying to high status universities.

Although previous research had pointed to the importance of feelings of 'fitting in' and belonging in higher education choices (e.g., Reay, Davies, David, & Ball, 2001; Reay, 2005), the current research is to my knowledge the first to examine this issue quantitatively. A key strength of this quantitative approach is that it can control for the influence of academic performance, which is important given the achievement gap between pupils from different SES backgrounds. The results reported in Chapter 4 show that psychological fit has an effect on higher education choices even when controlling for academic ability, which

helps to explain why highly able students from socially disadvantaged backgrounds are more likely to settle for 'second best' universities.

Furthermore, the results reported in Chapter 2 show that experimentally manipulating the level of identity compatibility can make individual mobility a less attractive strategy, even when the social structure permits it (in the sense that permeability is high). When there was incompatibility between a current identity and a potential higher status identity, low status group members had less favourable attitudes towards individual mobility (see Chapter 2, Study 2). Interestingly, I found that when compatibility between current identity and a potentially higher status identity was low, it was the *high ability* participants who were more likely to 'play safe' by selecting the less challenging option (see Chapter 2, Study 3). These findings suggest that a perceived incompatibility of identities can act as a barrier to individual mobility in a context where the higher status position is prestigious and where alternative options are regarded as 'good enough'. Future research should examine in greater detail the ways in which social context moderates the impact of identity compatibility on individual mobility.

I also examined the role of psychological barriers to the success of low SES students who are already at university. In line with Iyer and colleagues (2009), I found that when a new social identity is perceived to be incompatible with the 'old' identity, the old identity stands in the way of integrating into the new group. In these circumstances, well-being was adversely affected, presumably because a new sense of identification with and belonging in the new group could not be established. More specifically, analyses showed that identity compatibility at the start of the academic year predicted psychological fit in the second semester (see Studies 2 and 3, Chapter 3). Psychological fit, in turn, predicted levels of well-being and academic success. That is, students who felt that they had a good psychological fit with being at university were more likely to adjust academically, which in turn was

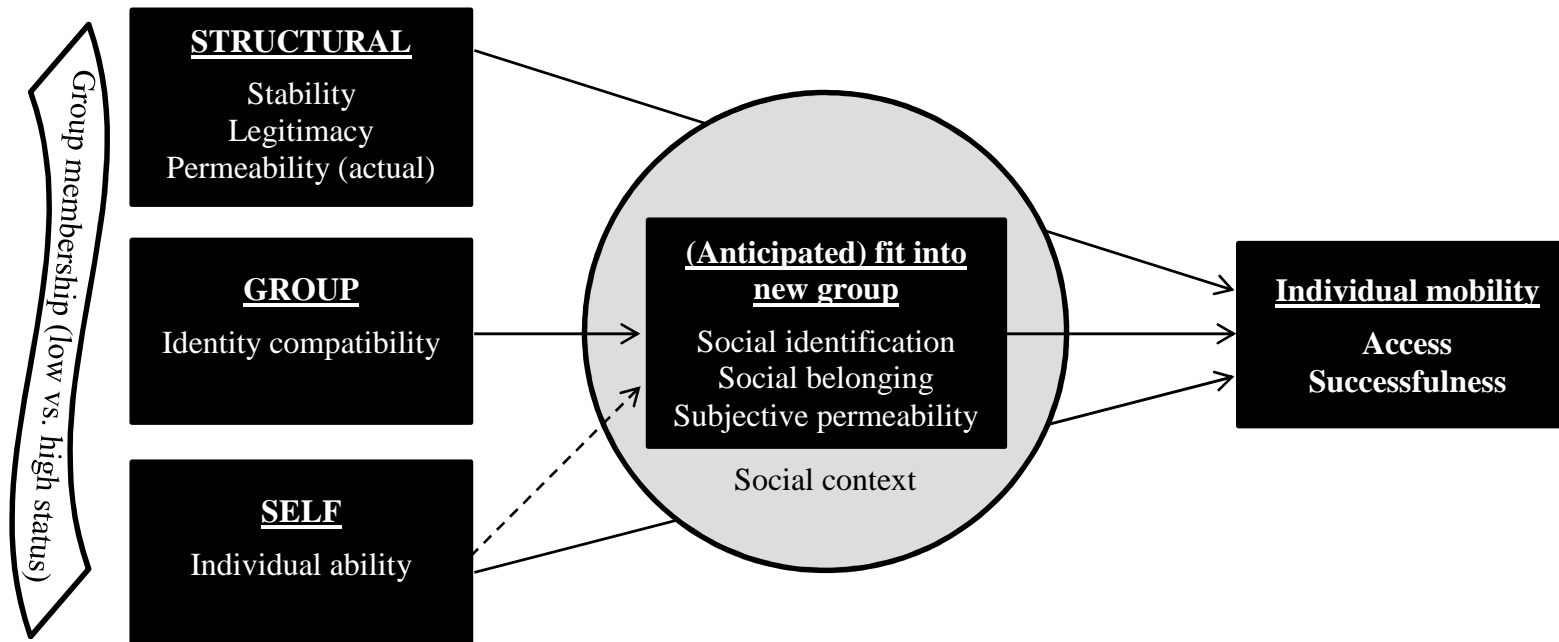


Figure 5.1.

Theoretical model of the role of structural, individual and identity factors in individual mobility (defined as access to the high status group and the extent of success within the high status group).

associated with higher grades at the end of their first year. Furthermore, students who perceived that they had a good psychological fit with university had greater well-being (see Chapter 3). Thus, perceptions of identity incompatibility and low psychological fit among low SES students appear to hinder successful integration into the higher status group. This shows that identity changes (such as becoming a university student) do not take place in a social vacuum. To understand whether members of a social group choose to take on higher status group memberships when faced with life transitions, one needs to understand how the new social identity fits with established identities (Sani, 2008). Future studies could examine how the upwardly mobile try to reconcile incompatibilities between old and new social identities (e.g., whether to try to maintain links with their social background or to try to assimilate to the high status group), perhaps using research on acculturation as an example (e.g., Berry, 1997).

In sum, it seems reasonable to conclude that identity compatibility and perceptions of social belonging and social identification are important psychological barriers to individual mobility that not only influence the success of individual mobility (in terms of integrating into the new group and gaining the same outcomes as 'original' group members) once disadvantaged students have embarked upon this route, but also lead members of disadvantaged groups to refrain from engaging in individual mobility in the first place.

Methodological considerations

In the research reported in this thesis, I examined the model summarised in Figure 5.1 using different methodologies (experimental, cross-sectional and longitudinal) in both lab-based and more naturalistic settings. In the latter type of setting, I examined low status group members at different stages of the individual mobility route by conducting studies both among pupils at secondary school at a time that they were making higher education choices and among students who were already at university (using both psychology and non-

psychology samples). The studies had good sample sizes, although the sample sizes in the experimental studies could have been higher. A further strength of the research reported in this thesis is that I aimed and also managed to replicate findings across different studies, despite differences in samples and methods.

Implications

Even when self-advancement is objectively possible (e.g., a student has the grades to get into a high status university) or encouraged by the environment (e.g., by the school, an individual teacher or the individual's parents or caretakers), the awareness that only a few people from one's background have followed the same route in the past can reduce the objective expectation of success (Barreto, Ellemers, & Palacios, 2004). It is worth noting that the school students who were participants in our research (reported in Chapter 4) were being educated in broadly similar school environments (i.e., in the state sector, in comprehensive schools, in South Wales). However, even within this broadly similar school environment we found that high SES pupils were more likely to apply to a high status university than were their low SES counterparts. Interventions designed to change this should focus on the individual school students' perceptions of identity compatibility and/or their perceptions of psychological fit with high status universities. It is likely to be more difficult to change perceptions of identity compatibility, in that perceived incompatibility is grounded partly in social class identity, which might be difficult to change – even if this was felt to be an acceptable objective. Changing perceptions of psychological fit, on the other hand, should be a more achievable goal. High prestige HEIs could and should do more to increase perceptions of permeability, and to foster the idea that students from disadvantaged backgrounds not only can gain entry but will also be made to feel welcome once they have arrived. These are psychological interventions that should enhance the likelihood that highly able working-class students will choose to apply to and (if accepted) flourish in high prestige universities.

However, it should also be acknowledged that academic achievement in public examinations is linked to SES and that it has an influence both on the kind of university to which students apply and on the likelihood of gaining entry. It follows that any measure that reduces the academic achievement gap at school level would also be an effective way to enhance the likelihood of success of low SES individuals who have the intellectual ability to gain entry to highly selective universities.

Awareness of the role of social contexts

The present research shows that there are several factors that reduce individual mobility among low SES students. Making students (and teachers) aware of these barriers and how they are grounded in SES should be a first step in any campaign to increase the chances of individual success. This may seem obvious, but just world beliefs often make people overlook evidence of the role that group membership plays in their (lack of) success (Major, Gramzow, McCoy, Levin, Schmader, & Sidanius, 2002). When conducting my research, I noticed that some participants reacted quite strongly to the SES-related questions that were incorporated near the end of my questionnaires. Pupils wrote comments such as ‘social class is not relevant anymore today’ and some did not want to complete the SES questions, illustrating how well entrenched meritocracy-related beliefs are in present day society. Increasing the awareness of potential barriers to low status group members could be achieved by educating students about the significance of social contexts (such as the roles of social class, gender and ethnicity), and how they shape the self-concept and possible selves (Markus & Nurius, 1986). Within schools, students could be educated about how social class background can affect the type of university to which they think about applying. At university, students could also be educated about how their social class background can influence their sense of belonging and adjustment. For example, in a study by Stephens, Hamedani and Destin (2014) senior university students from different backgrounds shared

personal stories with incoming students that highlighted how social class backgrounds can affect how students cope with the challenges that they are likely to face at university, as well as how certain strategies for coping with these challenges can be successful. By the end of their first year low SES students who learned about the significance of their backgrounds earned higher grades. By increasing awareness about the role of social contexts, students are likely to understand themselves and others better, which should equip them with the tools they need to take charge of their university (and subsequent) experience (Boykin & Nogera, 2011; Fook & Askeland, 2007).

Positive role models

Even if individual mobility is objectively possible, the awareness that only a few members of the ingroup have been successful in the past might not be encouraging (Barreto, Ellemers, & Palacios, 2004). Schools and universities could therefore provide low SES students with positive role models, for example by creating materials and resources showing prospective and current students examples of past students from low SES backgrounds who have been successful (Zirkel, 2002). However, mere awareness of role models does not automatically enhance the mobility of other ingroup members (Ellemers & Van Laar, 2010). It will be important that these role models are presented as ‘one of them’, rather than as exceptions to the rule, in order to avoid the well-known problem that counter-stereotypical exemplars are regarded as ‘exceptional’ with the result that exposure to such exemplars fails to result in generalization to the category as a whole (see Gibson & Cordova, 1999; Hamburger, 1994).

Theory and research suggest that people engaging in individual upward mobility (such as the successful role model) distance themselves from the stereotype of the ‘old’ group, which not only involves perceiving the self as a non-prototypical group member, but may also elicit stereotypical views of other in-group members, implying they might not have

what it takes to become successful (Ellemers, Van den Heuvel, de Gilder, Maass & Bonvini, 2004). Successful role models have the potential to increase low SES students' sense that different kinds of students can gain access to and be successful in university and thereby have a positive effect, as long as the role models are seen as relevant and attractive.

Cultivating a sense of fit

Within the context of higher education, the upwardly mobile are likely to experience threats to their identity. My findings indicate that low SES pupils may feel that their old identity is not valued in the new environment (i.e., value threat) or that they are not fully accepted into the new group (i.e., acceptance threat; Branscombe, Ellemers, Spears & Doosje, 1999). To tackle this, interventions should encourage students to see that 'people like them' are valued, recognised and included as part of the university community (Steele, 2010; Steele & Cohn-Vargas, 2013). Self-affirmation interventions have been shown to help students from disadvantaged backgrounds to cope with identity threat by providing them with an opportunity to reflect on and validate values that are central to the self (for an overview see Cohen & Sherman, 2014). These interventions have been successful in decreasing the achievement gap between majority and minority groups (e.g., African Americans and low SES students in education, and women in STEM subjects; Cohen, Garcia, Apfel, & Master, 2006; Cohen, Garcia, Purdie-Vaughns, Apfel, & Brzustoski, 2009; Harackiewicz et al. 2014; Miyake, Kost-Smith, Finkelstein, Pollock, Cohen, & Ito, 2010), but no research has examined the effects on psychological fit.

My attempt to address this gap produced inconclusive results (Study 3, Chapter 3). Some limitations of the self-affirmation intervention used in that study were discussed in Chapter 3. Another reason for the lack of significant effects could be that self-affirmation as a response to identity threats is more limited when it comes to increasing feelings of belonging. Research on self-affirmation following social threats to the self has found that affirming

one's values in a non-social domain is unlikely to remove the pain of social exclusion: although such affirmations may restore feelings of self-worth and even compensate for lack of personal accomplishment, they do not seem to be effective in creating a sense of social belonging (Knowles, Gale, Molden, Gardner & Dean, 2010). Although the research by Knowles and colleagues did not directly investigate social identity threat, their findings suggest that an intervention directly aimed at social inclusion might be more effective.

An intervention directly aimed at increasing the sense of belonging of 1st year African Americans in college (by framing social adversity as common and transient) found that African Americans' (but not European Americans') self-reported health and well-being increased as a result of the intervention, although feelings of belonging were not measured (Walton & Cohen, 2011). In sum, self-affirmation and social belonging interventions might prove a fruitful opportunity to increase feelings of psychological fit among low SES students in higher education, although a deeper understanding of how these interventions transform disadvantaged students' university experience beyond the realm of academic achievement is needed.

Future directions

In this section I aim to point towards new avenues for research, besides the ones already discussed. As with much social psychological research, there are variables beyond those considered that are potentially relevant and should be taken into account. Below I highlight some that I regard as important and promising.

Psychological fit is an important factor in my research, where it was measured by feelings of social belonging, social identification and (in the case of anticipated psychological fit) perceptions of permeability. Future research could examine the role of empowerment, which was not assessed in the current studies. Empowerment refers to a sense of entitlement, efficacy, and control over one's experience (e.g., Ryan & Deci, 2006). Stephens, Brannon,

Markus and Nelson (2015) argue that with the sense of ownership that comes with empowerment, students are more likely to influence their situation and seize available opportunities (e.g., by asking questions after a lecture). Thus empowerment seems to be an additional relevant psychological factor that could explain SES variations in levels of academic adjustment, performance and well-being at university.

Another variable that played an important role in our studies is identity compatibility. In the present studies I assumed that people would perceive greater incompatibility between old and new identities if the old identity was an important one. However, we did not assess the perceived importance of SES identity. This issue of the importance of pre-transition identity and how it affects psychological fit deserves greater consideration in future research.

Future studies could also examine the motives underlying the positive effects of identity compatibility and psychological fit. Based on SIT, we assumed that people are motivated to maintain or enhance feelings of distinctiveness, self-continuity and belonging, and that for low SES group members these motivations are involved when engaging in individual mobility (whereas motives of distinctiveness might be fulfilled, this is much less likely to be true of self-continuity and belonging motivations). Future research could examine the links between SIT motives, identity compatibility and psychological fit.

Conclusion

The present chapter has attempted to summarise the implications of my research on the structural and psychological barriers facing students from low SES backgrounds and to discuss how these barriers prevent them from successfully engaging in individual mobility. I drew conclusions based on the findings of the studies reported Chapters 2, 3 and 4, studies showing that individual merit is not always sufficient to improve one's position in society. The main point emerging from the thesis is that individual mobility has the potential to be a successful route for change if barriers between social groups are genuinely permeable and

perceived psychological barriers between social groups are removed. Although much work remains to be done, the interventions suggested above provide ideas about how to increase low SES students' access to higher education and opportunities to succeed.

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Appendices

The appendix contains supplementary information regarding the measures used in Chapters 2, 3 and 4 and factor loadings of the measurement models in Chapter 3 and 4.

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Appendix 2.1: Full details measures Chapter 2

Measures Study 1

Manipulation check group status

- How would you rate the average information processing skills of law students, compared to other fields?
- How would you rate the average information processing skills of psychology students, compared to other fields?

(Scale points: 1 = 'Much below average'; 7 = 'Much above average')

Manipulation check individual ability

- Based on the task you just did, how would you rate your own information processing skills? (Scale points: 1 = 'Very poor'; 7 = 'Very good')

Manipulation check permeability

- Who has been appointed to the student positions in the think tank in recent years? (Scale points: 1 = 'Only law students'; 7 = 'Only psychology students')

Individual mobility attitudes ($\alpha = .87$)

- I am keen to get this position
- I am willing to invest time and effort to get this position
- I find it important to distinguish myself from other psychology students
- I would prefer to be given this role because of my personal qualities, and not because I am a psychology student.

(Scale points: 1 = 'Completely disagree'; 7 = 'Completely agree')

- To what extent would you like to apply for the position in the think-tank? (Scale points: 1 = 'Not at all'; 11 = 'Very much')

Measures Study 2

Manipulation check individual ability

- Based on the task you just did, how would you rate your own information processing skills? (Scale points: 1 = 'Average'; 7 = 'Excellent')

Manipulation check identity compatibility

- How well does a typical Cardiff University student fit in with a General Psychology Internship socially? (Scale points: 1 = 'Not at all'; 7 = 'Very well')
- How similar is a typical Cardiff University student to other interns doing a General Psychology Internship? (Scale points: 1 = 'Not very similar'; 7 = 'Very similar')

Individual mobility attitudes ($\alpha = .81$)

Same items were used as in Study 2.1.

Measures Study 3

Manipulation check individual ability

- Based on the task you just did, how would you rate your own information processing skills? (Scale points: 1 = 'Average'; 7 = 'Excellent')

Manipulation check vacancy status

- How would you rate the status of the General/Intermediate/Professional Psychology Internship? (Scale points: 1 = ‘Very low’; 7 = ‘Very high’)

Manipulation check identity compatibility

- How well does a typical Cardiff University student fit in with a General/Intermediate/Professional Psychology Internship socially? (Scale points: 1 = ‘Not at all’; 7 = ‘Very well’)
- How similar is a typical Cardiff University student to other interns doing a General/Intermediate/ Professional Psychology Internship? (Scale points: 1 = ‘Not so similar’; 7 = ‘Very similar’)

Individual mobility attitudes ($\alpha > .91$)

Same items as in Study 1.1 & 1.2 + the following items:

- I am very motivated to apply to this internship
- I want to do this internship because it would be good for my career prospects

(Scale points: 1 = ‘Completely disagree’; 7 = ‘Completely agree’)

Individual mobility intentions

- If you had just ONE opportunity to apply for one of the internships, which one would you apply for? (Scale options low ability condition: General or Intermediate Psychology Internship; Scale options high ability condition: Intermediate or Professional Psychology Internship)

Appendix 3.1: Full details measures Chapter 3

Measures Study 1A

Social class ($\alpha = .69$)

What is the highest level of education your father/mother (or the person you consider to be your father/mother) has achieved? (*please tick the box that's most applicable*)

- No qualifications**

- GCSE / CSE / GCE O-level**
(or City and Guilds Level 1 or 2/Craft/Intermediate, or NVQ/SVQ Level 1 or 2, or GNVQ/GSVQ Foundation or Intermediate Level, or equivalent)

- A-level, S-level, A2-level, AS-level**
(or City and Guilds Level 3/Advanced/Final, or NVQ/SVQ Level 3, or GNVQ/GSVQ Advanced Level, or equivalent)

- City and guilds Level 4/Full Technological**
(or NVQ/SVQ Level 4 or 5, or equivalent)

- Bachelor's degree** or equivalent

- Master's degree** or equivalent

- Ph.D., D.Phil** or equivalent

- Other, namely** _____

- I don't have a father or a person I consider to be my father

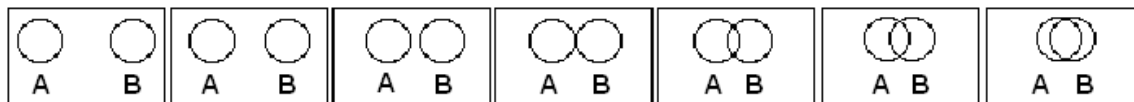
If you had to choose which social class would you say you belong to?

- Lower working class
- Working class
- Upper working class
- Lower middle class
- Middle class
- Upper middle class
- Upper class
- Other, namely: _____
- Don't know

Identity compatibility ($r = .43$)

1. Think about whether your decision to become a university student is consistent with *your wider social background*.

Choose the pair of circles that best represents the amount of overlap you think there is between being a university student and *your wider social background*.



1. 2. 3. 4. 5. 6. 7.

2. Think about whether your decision to become a university student is consistent with *your immediate family background*.

Choose the pair of circles that best represents the amount of overlap you think there is between being a university student and *your immediate family background*.



1. 2. 3. 4. 5. 6. 7.

Social identification ($\alpha = .83$)

- I expect to identify strongly with other university students
- I expect to feel strong ties with other university students
- I expect to feel a strong sense of solidarity with other university students

(Scale points: 1 = 'Strongly disagree'; 7 = 'Strongly agree')

Belonging ($\alpha = .80$)

- I am confident that I will fit in with my university friends
- I think I will generally feel that people accept me in university
- I am worried that I will feel left out of things in university
- I am worried that I will not be valued by or important to university friends

(Scale points: 1 = 'Strongly disagree'; 7 = 'Strongly agree').

Academic adjustment

- How well do you think you will adjust academically to your university? (Scale points: 1 = 'Not well at all'; 5 = 'Very well')

Well-being

Positive affect

- Thinking about myself and how I normally feel, in general, I mostly experience positive feelings (Scale points: 1 = 'Disagree strongly'; 10 = 'Agree strongly')

Negative affect

- Thinking about myself and how I normally feel, in general, I mostly experience negative feelings (Scale points: 1 = 'Disagree strongly'; 10 = 'Agree strongly')

Life satisfaction

- Overall, I feel that I am satisfied with my life (Scale points: 1 = 'Disagree strongly'; 10 = 'Agree strongly')

Depression

- On a scale of one to ten, how depressed would you say you are in general (Scale points: 1 = 'Not at all depressed'; 10 = 'Extremely depressed')

Anxiety

- On a scale of one to ten, how anxious would you say you are in general (Scale points: 1 = 'Not at all anxious'; 10 = 'Extremely anxious')

Academic performance

Students' overall mark at the end of their first year of study was measured in percentages (from 0 to 100%).

Measures Study 1B

Social class ($\alpha = .64$)

The same three items were used as in Study 1A.

Identity compatibility ($r = .41$)

The same two items were used as in Study 1A.

Social identification ($\alpha = .90$)

- I identify strongly with other university students
- I feel strong ties with other university students
- I feel a strong sense of solidarity with other university students

(Scale points: 1 = 'Strongly disagree'; 7 = 'Strongly agree')

Belonging ($\alpha = .76$)

- I feel that I am fitting in with my university friends
- I feel that people accept me at university
- I feel left out of things in university
- I am worried that I am not valued by or important to university friends

(Scale points: 1 = 'Strongly disagree'; 7 = 'Strongly agree')

Academic adjustment

- How well do you think you are adjusting academically to university? (Scale points: 1 = 'Not well at all'; 5 = 'Very well')

Measures Study 2

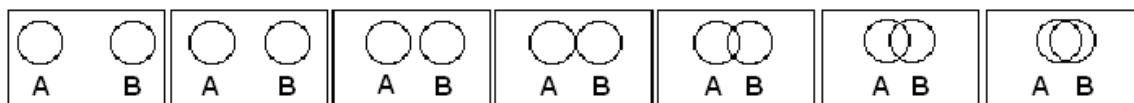
Social class ($\alpha = .66$)

The same three items were used as in Studies 1A and 1B.

Identity compatibility ($r = .61$)

1. Think about whether your decision to become a university student is consistent with *your general family and social background*.

Choose the pair of circles that best represents the amount of overlap you think there is between being a university student and *your general family and social background*.



1.

2.

3.

4.

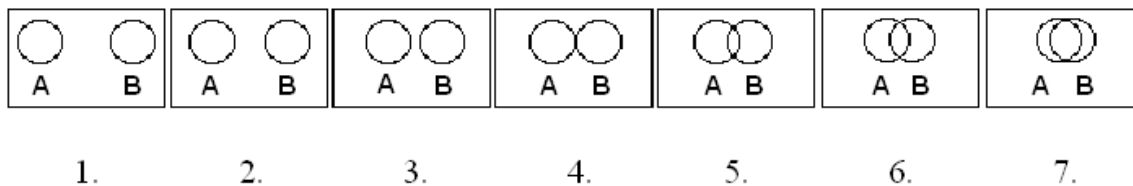
5.

6.

7.

2. Now think more specifically about whether your decision to become a university student is consistent with *your immediate family background* (e.g., *your parents' education and occupation*).

Choose the pair of circles that best represents the amount of overlap you think there is between being a university student and *your immediate family background*.



Belonging ($\alpha = .83$)

The same four items were used as in Studies 1A and 1B.

Social identification

Self-investment ($\alpha = .88$)

- I feel a bond with university students
- I feel solidarity with university students
- I feel committed to university students
- I am glad to be a university student
- I think that university students have a lot to be proud of
- It is pleasant to be a university student
- Being a university student gives me a good feeling
- I often think about the fact that I am a university student
- The fact that I am a university student is an important part of my identity
- Being a university student is an important part of how I see myself

Self-definition ($\alpha = .84$)

- I have a lot in common with the average university student
- I am similar to the average university student
- University students have a lot in common with each other
- University students are very similar to each other

(Scale points: 1 = 'Strongly disagree'; 7 = 'Strongly agree')

Academic adjustment ($\alpha = .73$)

- How well do you think you are adjusting academically to university? (Scale points: 1 = 'Not well at all'; 5 = 'Very well')
- I am not performing well during examinations
- I am satisfied with my level of academic performance
- I am worried that I am not really smart enough for the academic work I am expected to do

(Scale points: 1 = 'Strongly disagree'; 7 = 'Strongly agree')

Social detachment

Adjustment difficulties ($\alpha = .90$)

To what extent have you experienced the following in the past week:

- Finding it difficult adjusting to a new situation
- Feeling uncomfortable in a new situation
- Feeling lost in a new situation
- Having difficulties getting used to new customs

Loneliness ($\alpha = .81$)

- Feeling lonely
- Feeling unloved
- Feeling isolated from the rest of the world

(Scale points: 1 = 'Not at all'; 5 = 'Very strong')

Academic performance

Students' overall mark at the end of their first year of study was measured in percentages (from 0 to 100%).

Measures Study 3

Social class ($\alpha = .74$)

The same three items were used as in Studies 1A, 1B and 2.

Identity compatibility ($r = .70$)

The same two items were used as in Study 2.

Social identification ($\alpha > .84$)

The same three items were used as in Studies 1A and 1B.

Belonging ($\alpha > .81$)

- I feel that I am fitting in with my university friends
- I feel that I'm making good friends at university'
- I feel that people accept me at university
- I am worried that my background and experiences are so different from those around me in university
- I feel left out of things in university
- I am worried that I am not valued by or important to university friends

(Scale points: 1 = 'Strongly disagree'; 7 = 'Strongly agree')

Positive and negative affect (PANAS) ($\alpha_{PA} = .87$; $\alpha_{NA} = .86$)

The following questions are about how you generally feel about yourself and your life.

- Interested
- Distressed
- Excited
- Upset
- Strong
- Guilty
- Scared
- Hostile
- Enthusiastic
- Proud
- Irritable
- Alert
- Ashamed
- Inspired
- Nervous
- Determined
- Attentive
- Jittery
- Active
- Afraid

(Scale points: 1 = 'Very slightly or not at all'; 5 = 'Very much')

Life satisfaction ($\alpha = .90$)

How do you feel about your life in general?

- In most ways my life is close to ideal
- The conditions of my life are excellent
- I am satisfied with my life
- So far I have gotten the important things I want in life

(Scale points: 1 = 'Strongly disagree'; 7 = 'Strongly agree')

Self-esteem ($\alpha = .91$)

- I feel that I am a person of worth, at least on an equal plane with others.
- I feel that I have a number of good qualities.
- All in all, I am inclined to feel that I am a failure.
- I am able to do things as well as most other people.
- I feel I do not have much to be proud of.
- I take a positive attitude toward myself.
- On the whole, I am satisfied with myself.
- I wish I could have more respect for myself.
- I certainly feel useless at times.
- At times I think I am no good at all.

(Scale points: 1 = 'Strongly disagree'; 7 = 'Strongly agree')

Appendix 3.2: Additional factor loadings of the path model in Study 1A, Chapter 3

Factor	Observed Variable	B (SE)	β
Psychological fit	Anticipated Identification	1.00	.77***
	Anticipated Belonging	1.17 (.13)	.85***
Well-being	PA	1.00	.81***
	NA	-1.20 (.09)	-.91***
	LS	.85 (.08)	.67***
	Dep	-1.06 (.09)	-.82***
	Anx	-.79 (.11)	-.56***

Note. *** $p < .001$.

Appendix 3.3: Factor loadings of the measurement model in Study 2, Chapter 3

Factor	Item	B (SE)	β
Psychological fit T2 (2 nd /3 rd order factor)	Belonging (1 st order factor)	1.00	.97***
	Identification SD (1 st order factor)	.87 (.13)	.72***
	Identification SI (2 nd order factor)	.77 (.11)	.82***
Belonging HSU	B1	.90 (.10)	.89***
	B2	.85 (.10)	.84***
	B3	1.00	.60***
	B4	.96 (.10)	.60***
Identification SD	D1	1.00	.88***
	D2	.84 (.05)	.77***
	D3	.79 (.11)	.69***
	D4	.74 (.11)	.60***
Identification SI (2 nd order factor)	Solidarity (1 st order factor)	1.00	.88***
	Satisfaction (1 st order factor)	.61 (.08)	.80***
	Centrality (1 st order factor)	.60 (.12)	.56***
Solidarity	SO1	1.00	1.04***
	SO2	.80 (.08)	.72***
	SO3	.91 (.08)	.85***
Satisfaction	SA1	1.00	.81***
	SA2	.98 (.10)	.73***
	SA3	1.01 (.11)	.69***
	SA4	1.13 (.10)	.78***
Centrality	C1	1.00	.61***
	C2	1.20 (.13)	.90***
	C3	1.21 (.13)	.89***
Social detachment (2 nd order factor)	Loneliness (1 st order factor)	1.00	.91***
	Adjustment difficulties (1 st order factor)	.84 (.14)	.78***
Loneliness	L1	1.00	.66***
	L2	.97 (.11)	.77***
	L3	1.29 (.13)	.91***
Adjustment difficulties	Ad1	1.17 (.11)	.79***
	Ad2	1.44 (.14)	.95***
	Ad3	1.42 (.14)	.92***
	Ad4	1.00	.65***
Academic adjustment	A1	1.00	.68***
	A2	1.68 (.24)	.61***
	A3	1.82 (.27)	.76***
	A4	1.76 (.31)	.60***

Note. *** $p < .001$.

Appendix 3.4: Factor loadings of the measurement model in Study 3, Chapter 3

Factor	Item/Parcel	B (SE)	β
SES	SES1 (education father)	1.00	.76***
	SES2 (education mother)	.99 (.12)	.76***
	SES3 (subjective class)	.72 (.10)	.63***
Identity Compatibility	IC1	1.00	.68***
	IC2	1.88 (.26)	.98***
Psychological fit T2 (2 nd order factor)	Belonging (1 st order factor)	.76 (.09)	.94***
	Identification SD (1 st order factor)	1.00	.87***
Belonging	Parcel B1	1.00	.77***
	Parcel B2	1.24 (.10)	.89***
	Parcel B3	1.24 (.10)	.94***
Identification SD	Item I1	1.00	.92***
	Item I2	1.02 (.05)	.93***
	Item I3	.83 (.07)	.77***
Positive Affect	Parcel PA1	1.09 (.10)	.81***
	Parcel PA2	1.00	.83***
	Parcel PA3	1.08 (.10)	.85***
Negative Affect	Parcel NA1	1.00	.84***
	Parcel NA2	1.00 (.08)	.90***
	Parcel NA3	.94 (.08)	.86***
Self-Esteem	Parcel SE1	1.00	.86***
	Parcel SE2	.82 (.06)	.87***
	Parcel SE3	.89 (.06)	.92***
Life Satisfaction	Parcel LS1	1.00	.93***
	Parcel LS2	.95 (.07)	.88***

Note. *** $p < .001$.

Appendix 4.1: Full details measures Chapter 4

Measures Study 1

Parental education ($r = .48$)

What is the highest level of education your father/mother (or the person you consider to be your father/mother) has achieved? (*please tick the box that's most applicable*)

- No qualifications**

- GCSE / CSE / GCE O-level**
(or City and Guilds Level 1 or 2/Craft/Intermediate, or NVQ/SVQ Level 1 or 2, or GNVQ/GSVQ Foundation or Intermediate Level, or equivalent)

- A-level, S-level, A2-level, AS-level**
(or City and Guilds Level 3/Advanced/Final, or NVQ/SVQ Level 3, or GNVQ/GSVQ Advanced Level, or equivalent)

- City and guilds Level 4/Full Technological**
(or NVQ/SVQ Level 4 or 5, or equivalent)

- Bachelor's degree** or equivalent

- Master's degree** or equivalent

- Ph.D., D.Phil** or equivalent

- Other, namely** _____

- I don't have a father or a person I consider to be my father

Subjective class

If you had to choose which social class would you say you belong to?

- Lower working class
- Working class
- Upper working class
- Lower middle class
- Middle class
- Upper middle class
- Upper class
- Other, namely: _____
- Don't know

Identity Compatibility ($r = .79$)

- To what extent do you feel your decision to become a student is consistent with your general family and social background?
- To what extent do you feel your decision to become a student is consistent with your immediate family background, for example your parents' occupation?

(Scale points: 1 = 'Not at all consistent'; 7 = 'Very consistent')

Psychological fit

Social identification ($\alpha_{SU} = .80$, $\alpha_{LSU} = .85$)

- I expect to feel strong ties with other University X students
- I expect I will identify with other University X students
- I expect I will identify with other University X students

Belonging ($\alpha_{SU} = .85, \alpha_{LSU} = .85$)

- I am confident that I would fit in with others at University X
- I am confident that I would make good friends at University X

Permeability

- University X is open to students like me

(Scale points: 1 = 'Strongly disagree; 7 = 'Strongly agree')

Academic ability ($\alpha = .83$)

What grade did you achieve for each of the following subjects at GCSE level?

(Please circle the grade you got)

English (Language)	A*	A	B	C	D	E	F	G	U
Mathematics	A*	A	B	C	D	E	F	G	U
Science	A*	A	B	C	D	E	F	G	U

University status ($\alpha = .63$)

What university would you like to apply to?

Please list your top three.

1. _____
2. _____
3. _____

Measures Study 2

Parental education ($r = .52$)

The same measure was used as in Study 1.

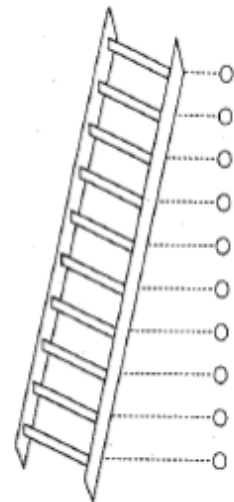
Subjective class

Imagine that this ladder pictures how the UK society is set up.

At the top of the ladder are the people who are the best off in the UK – they have the most money, the highest amount of schooling and the jobs that bring the most respect.

At the bottom are people who are the worst off in the UK – they have the least money, little or no education, no job or jobs that nobody wants or respects.

Now think about your family. Please tick the circle that shows where you think your family would be on this ladder.



Identity compatibility ($r = .78$).

The same two items were used as in Study 1.

Psychological fit

Social identification ($\alpha_{LSU} = .81, \alpha_{SU} = .78, \alpha_{HSU} = .79$)

The same three items were used as in Study 1.

Belonging ($\alpha_{LSU} = .87, \alpha_{SU} = .83, \alpha_{HSU} = .83$).

The same two items were used as in Study 1.

Permeability ($\alpha_{LSU} = .72$, $\alpha_{SU} = .73$, $\alpha_{HSU} = .76$)

- The University X is open to students like me
- Assuming I get the required grades, it is easy for students like me to get into University X
- University X is accessible to people like me

(Scale points: 1 = 'Strongly disagree; 7 = 'Strongly agree')

Academic ability ($\alpha = .83$)

Please write down the grades you expect to get for your **A-Levels** (e.g. "2 Cs and a D")

University status ($\alpha = .70$)

Of all the universities available to you, which university would you like to apply to?

Please list your top three, in order of preference (where 1 = most preferred).

1. _____
2. _____
3. _____

Appendix 4.2: Factor loadings of the measurement model in Study 1, Chapter 4

Factor	Item	B (SE)	β
SES	SES1 (education father)	1.00	.68***
	SES2 (education mother)	1.07 (.14)	.70***
Identity compatibility	IC1	1.00	1.00***
	IC2	.70 (.07)	.78***
Psychological fit SU (2 nd order factor)	Belonging/permeability SU (1 st order factor)	1.00	1.28***
	Identification SU (1 st order factor)	.35 (.07)	.58***
Belonging/permeability SU	B1	1.00	.82***
	B2	.81 (.06)	.77***
	P1	.75 (.09)	.60***
Identification SU	I1	1.00	.71***
	I2	1.32 (.12)	.87***
	I3	.88 (.10)	.67***
Psychological fit LSU (2 nd order factor)	Belonging/permeability LSU (1 st order factor)	1.00	1.22***
	Identification LSU (1 st order factor)	.42 (.08)	.71***
Belonging/permeability LSU	B1	1.00	.82***
	B2	.78 (.05)	.74***
	P1	.79 (.08)	.65***
Identification LSU	I1	1.00	.76***
	I2	1.30 (.10)	.92***
	I3	.97 (.08)	.75***
Grades	English	1.00	.70***
	Science	1.26 (.16)	.76***
	Mathematics	1.33 (.17)	.77***

Note. *** $p < .001$.

Appendix 4.3: Factor loadings of the measurement model Study 2, Chapter 4

Factor	Item	B (SE)	β
SES	SES1 (education father)	1.00	.73***
	SES2 (education mother)	.84 (.10)	.69***
Identity compatibility	IC1	1.00	.75***
	IC2	1.56 (.15)	1.03***
Psychological fit HSU (2 nd order factor)	Belonging HSU (1 st order factor)	1.00	.80***
	Identification HSU (1 st order factor)	1.07 (.15)	.91***
	Permeability HSU (1 st order factor)	.70 (.11)	.57***
Belonging HSU	B1	1.00	.83***
	B2	.91 (.07)	.82***
Identification HSU	I1	1.00	.69***
	I2	1.03 (.10)	.81***
	I3	1.08 (.11)	.79***
Permeability HSU	P1	1.00	.75***
	P2	.84 (.10)	.60***
	P3	1.10 (.11)	.81***
Psychological fit SU (2 nd order factor)	Belonging SU (1 st order factor)	1.00	.74***
	Identification SU (1 st order factor)	1.23 (.18)	.85***
	Permeability SU (1 st order factor)	.80 (.14)	.58***
Belonging SU	B1	1.00	.82***
	B2	.97 (.09)	.84***
Identification SU	I1	1.00	.65***
	I2	1.19 (.11)	.84***
	I3	1.10 (.10)	.81***
Permeability SU	P1	1.00	.69***
	P2	.89 (.12)	.57***
	P3	.95 (.11)	.74***
Psychological fit LSU (2 nd order factor)	Belonging LSU (1 st order factor)	1.00	.84***
	Identification LSU (1 st order factor)	1.04 (.12)	.92***
	Permeability LSU (1 st order factor)	.54 (.08)	.51***
Belonging LSU	B1	1.00	.92***
	B2	.75 (.05)	.83***
Identification LSU	I1	1.00	.68***
	I2	.92 (.08)	.85***
	I3	.87 (.09)	.82***
Permeability LSU	P1	1.00	.83***
	P2	.56 (.09)	.48***
	P3	.71 (.10)	.64***

Note. *** $p < .001$.