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Social Class Person by Environment Interactions: Consequences of a Motivational Asymmetry

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Social Class Person by Environment Interactions:

Consequences of a Motivational Asymmetry

A dissertation submitted in partial satisfaction of the

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in Psychology

by

Hua Ni

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ABSTRACT OF THE DISSERTATION

Social Class Person by Environmental Interactions:

Consequences of a Motivational Asymmetry

by

Hua Ni

Doctor of Philosophy in Psychology

University of California, Los Angeles, 2019

Professor Yuen J. Huo, Chair

The present research examines the responses of students from higher versus lower social class backgrounds as they are exposed to new socioeconomic environments. We hypothesize that there is a motivational asymmetry between students depending on their socioeconomic status (SES) – while students from low-SES backgrounds are motivated to enter and adapt to high-SES environments because these environments contain opportunities for upward social mobility, students from high-SES backgrounds are not motivated to enter or adapt to low-SES environments because those environments do not contain interpersonal relationships or opportunities for advancement for them. Therefore, we predict that students from both high and low-SES backgrounds will rate high-SES environments as being more conducive towards status / achievement goals than low-SES environments, and students from low-SES backgrounds will be motivated to enter high-SES environments in pursuit of these status goals. Time spent in high-

SES environments may result in students from low-SES backgrounds feeling a similar amount of belonging in both high and low-SES environments, leading to greater adaptation to different socioeconomic environments and the development of a bicultural social class identity. Meanwhile, we predict that these processes will not occur for students from high-SES backgrounds because they are motivated to avoid new (i.e., lower) socioeconomic environments. In three studies done with students at a prestigious university, we found support for the motivational asymmetry framework, specifically relating to questions around interpersonal belonging and opportunities for status / advancement. Students from high-SES backgrounds reported more belonging in high-SES environments than low-SES environments, whereas students from low-SES backgrounds reported equal amounts of belonging in both environments (Study 1). Both high and low-SES students reported higher perceptions of status, as well as greater perceived levels of future belonging and future status in high-SES environments as compared to low-SES environments (Study 2). However, while low-SES students reported moving between different socioeconomic environments more than high-SES students, we did not find differences in bicultural social class identities or adaptation between high and low-SES students (Study 3). Implications and future directions are discussed.

The dissertation of Hua Ni is approved.

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TABLE OF CONTENTS

LIST OF TABLES AND FIGURES

Tables:

Figures:

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INVITED TALKS

Ni, H.W., & Huo, Y.J. *Negative Feedback from Men Supervisors Discourages Women from Pursuing Leadership Roles.* Talk presented at the 2019 Annual Meeting of the International Society of Political Psychology, Lisbon, Portugal (July, 2019).

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Ni, H.W., Goodale, B. & Huo, Y.J. *The Space You're In: How Environmental Social Class Cues Affect Student Performance.* Talk presented at the 19th Annual Meeting of the Society for Personality and Social Psychology, Atlanta, GA (March, 2018).

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Social Class Person by Environment Interactions:

Consequences of a Motivational Asymmetry

The United States likes to think of itself as a classless society. However, recent social movements like Occupy Wall Street and We Are the 99% show that issues surrounding social class and social mobility are increasingly a part of our public consciousness. Past psychological research has mainly focused on issues around social class at one of two levels: The person-level (e.g., how to measure the social class of an individual, Lareau & Conley, 2008; Oakes & Rossi, 2003) or the group-level (e.g., how do groups high in socioeconomic status psychologically differ from groups that are low in socioeconomic status, Kraus & Stephens, 2012). However, there is a third level which can also be measured socioeconomically: The physical environments which people inhabit. In the present research, our focus is on how people and physical environments interact in the context of social class to predict individuals' motivations and psychological responses to different socioeconomic environments.

Similar to people and groups, physical environments can also be classified on the social class spectrum, from higher to lower socioeconomic environments. Classifications of physical environments based on social class categories are possible because the physical environments that people inhabit are filled with social class cues, such as symbols of wealth or aesthetics (Kraus, Piff, & Keltner, 2011), which signify a specific social class. Socioeconomic environments do not just differ aesthetically, however. They also differ in the amount of resources and opportunities for goal attainment that they can provide for the people in these environments. Higher socioeconomic environments are abundant in resources, materially rich and comfortable, and physically safe. All of these elements make higher socioeconomic environments conducive towards allowing people to successfully pursue their achievement goals,

such as goals relating to work and education (Wilson, 1987). On the other hand, lower socioeconomic environments lack resources and tend to be more physically uncomfortable and unsafe, which can provide roadblocks towards achieving one's goals.

These differences in resources and opportunities between higher and lower socioeconomic environments are important because they affect how motivated people are to stay in these environments versus choosing to enter new socioeconomic environments. Even though individuals spend much of their time in environments which match their social class backgrounds (Domhoff, 1998), people from all social classes can and do sometimes enter socioeconomic environments which do not match their own socioeconomic status (SES). Because higher socioeconomic environments have abundant resources and assist people with goal attainment, we suggest that people from lower social class backgrounds are motivated to enter these environments in pursuit of their occupational or educational goals. However, because lower socioeconomic environments have a dearth of resources and opportunities for goal attainment, people from higher social class backgrounds are not motivated to enter these environments. Therefore, we argue that people from higher and lower social class backgrounds are *asymmetrically motivated* to enter new socioeconomic environments which do not match their social class background. We use this motivational asymmetry as a framework to examine how people from higher versus lower social class backgrounds respond to new socioeconomic environments and their resultant psychological outcomes in these environments.

An Asymmetric Motivation to Enter New Socioeconomic Environments

We argue that there is an asymmetric motivation to enter new socioeconomic environments between individuals from higher and lower social class backgrounds. Individuals from lower social class backgrounds are motivated to enter higher socioeconomic environments

in order to gain access to opportunities such as higher paying jobs or higher education, which would help them improve their life outcomes (Chetty, Hendren, & Katz, 2016). However, individuals from higher social class backgrounds are de-motivated from entering lower socioeconomic environments because these environments do not provide them with resources or opportunities.

Motivations of Individuals from Higher Social Class Backgrounds. Individuals from higher social class backgrounds have more access to resources and therefore more choice about which physical environments to spend their time in (Johnson & Krueger, 2006). There is a lack of resources and opportunities in lower socioeconomic environments, as well as a lack of interpersonal ties for these individuals since they generally tend to make friends from within their own social class (Malacarne, 2017). Therefore, there are few incentives for individuals from higher social class backgrounds to go into lower socioeconomic environments. This leads us to theorize that individuals from higher social class backgrounds are not motivated to enter lower socioeconomic environments. Examples of individuals from higher social class backgrounds willingly choosing to enter lower socioeconomic environments are sparse and is usually concentrated around socially conscious individuals (for example, a person who volunteers in a low-income neighborhood or travels to a less developed nation). Other examples of individuals from higher social class backgrounds in lower socioeconomic environments often reflect a lack of choice – for example, people living in areas of the country undergoing an economic decline. Past research has shown that these individuals often experience feelings of relative deprivation – a loss of resources and social status as compared to others (Smith, Pettigrew, Pippin, & Bialosiewicz, 2012) – which usually results in deleterious psychological consequences

(Nedelman, 2017) for this group. Therefore, we argue that individuals from higher social class backgrounds are motivated to avoid lower socioeconomic environments.

In fact, not only are individuals from higher social class backgrounds not motivated to enter lower socioeconomic environments, but the upper classes as a whole are motivated to maintain the physical segregation of the upper and lower classes in order to protect their own access to power and resources. The upper classes maintain and enforce physical segregation from their lower class counterparts through such methods as gated communities, private schools, and private transportation (Dorling, 2014). Less interaction between social classes due to segregated environments benefits the upper classes by allowing them to turn a blind eye to the living conditions of the lower classes, and distance themselves in order to maintain their own status (Kunstman, Plant, & Deska, 2016).

Motivations of Individuals from Lower Social Class Backgrounds. Individuals from lower social class backgrounds, meanwhile, have less choice in what environments they find themselves in and often occupy lower socioeconomic environments because they lack the resources to reside in higher socioeconomic environments. Even though they may benefit from interpersonal relationships with friends and family in these environments (Guinote, Cotzia, Sandhu, & Siwa, 2015), they are disadvantaged in terms of objective outcomes by remaining in lower socioeconomic environments all of the time because these environments are characterized by a lack of access to resources, less opportunities for advancement, more crime and less safe neighborhoods (Sampson, Morenoff, & Gannon-Rowley, 2002). Therefore, individuals from lower social class backgrounds must go into higher socioeconomic environments if they would like to improve their life outcomes. This leads individuals from lower social class backgrounds to move or travel between different socioeconomic environments in order to obtain resources and

improve their economic circumstances. For example, people living in low-income neighborhoods often commute to work in high-income neighborhoods, and low-income and first-generation students are attending elite universities in affluent environments at increasing rates (Housel & Harvey, 2009). These are examples of individuals from lower social class backgrounds moving between a lower socioeconomic home environment, where they have interpersonal ties, and a higher socioeconomic work or school environment which supports their goal attainment.

In short, individuals from lower social class backgrounds are entering higher socioeconomic spaces in the hopes of achieving upward social mobility, an integral part of the American Dream (Banks-Santilli, L, 2014). Past research has suggested that individuals from lower social class backgrounds suffer deleterious physical and psychological outcomes when they enter new socioeconomic environments (James, 1994; Ostrove & Long, 2007; Smith & Huo, 2014). However, we suggest that psychologically, individuals from lower social class backgrounds are motivated to travel to, explore and attempt to integrate themselves into higher socioeconomic environments in an effort to improve their financial circumstances and life outcomes. At the same time, however, they still maintain ties to their lower socioeconomic home communities due to the interpersonal relationships that they have there.

We test these ideas in a set of studies using samples of low-income students at an elite university since this is a prominent example of individuals from lower social class backgrounds entering a higher socioeconomic environment. We compare the results of students from lower social class backgrounds with the results of students from higher social class backgrounds in order to test for a motivational asymmetry – i.e., whether individuals from lower social class backgrounds are more motivated to be in higher socioeconomic environments than individuals from higher social class backgrounds are motivated to be in lower socioeconomic environments.

This motivational asymmetry has important implications for outcomes such as interpersonal belonging needs and resource / status needs, since we theorize that these two psychological needs shape how individuals respond to their environments. Therefore, we begin by examining the role of interpersonal belonging and desire for resources / status in how individuals from higher and lower social class backgrounds interact with higher and lower socioeconomic environments which either match or do not match their social class (Figure 1).

	Higher Social Class Environments	Lower Social Class Environments
Individuals from higher social class backgrounds	Match	Mismatch
Individuals from lower social class backgrounds	Mismatch	Match

Figure 1. Social class person by environment interactions.

How Physical Environments Satisfy Key Psychological Needs

People have certain needs and desires that are better satisfied in some physical environments than others. Theoretically, individuals should only enter or remain in a given socioeconomic environment if that environment satisfies one or more of their psychological needs. Therefore, how and when higher versus lower socioeconomic environments satisfy the psychological needs of individuals from higher versus lower social class backgrounds is an important component of the motivational asymmetry that we have proposed. We chose to focus on two psychological needs which have been theorized to be essential for well-being: Resource / status needs (Anderson, Hildreth, & Howland, 2015) and interpersonal belonging needs (Baumeister & Leary, 1995).

Theorizing about how individuals from higher versus lower social class backgrounds attempt to satisfy their status and belonging needs in different socioeconomic environments leads to predictions which are in support of a motivational asymmetry between individuals from higher and lower social class backgrounds. With regards to status, we predict that both individuals from higher and lower social class backgrounds will agree that higher socioeconomic environments are more conducive towards satisfying resource / status needs because these environments contain more opportunities for success and achievement than lower socioeconomic environments. Therefore, individuals from lower social class backgrounds are motivated to enter higher socioeconomic environments in order to satisfy their resource / status needs, while individuals from higher social class backgrounds are not motivated to enter lower socioeconomic environments because those environments lack resources and opportunities to obtain a higher status.

While resources may be concentrated in higher socioeconomic environments, the opportunity for interpersonal belonging is possible in both higher and lower socioeconomic environments. Past research suggests that we tend to form friendships with those whom we are in close proximity with, who share the same physical environments as we do (Preciado, Snijders, Burk, Stattin, & Kerr, 2012). Individuals from higher social class backgrounds are theorized to avoid going into lower socioeconomic environments and therefore are expected to feel greater belonging in higher socioeconomic environments as compared to lower socioeconomic environments. However, individuals from lower social class backgrounds are theorized to move between different socioeconomic environments and may therefore be expected to feel similar levels of belonging across both higher and lower socioeconomic environments.

The Role of Resource / Status Needs. The desire for status – to have the respect, admiration and voluntary deference of others (Anderson et al., 2015) - has been proposed as a fundamental human need. Part of obtaining status comes from the acquisition of resources such as money, since wealthy people are often admired, valued and respected in our society, and obtaining wealth is an important life goal for many Americans (Pryor et al., 2006). Wealth confers many benefits in terms of life outcomes – people with more money are healthier (Adler et al., 1994), more educated (Reardon, 2011) and sometimes happier (Ng & Diener, 2014) than those with less money, and these benefits are due in part to the environments that wealthy people inhabit, which contain more resources and less sources of threat.

Another component of having high status is having *perceived instrumental social value* (Leary, Jongman-Sereno, & Diebels, 2014). That is, people are afforded status when they have displayed competence and achievement and others wish to seek their advice or learn from them. In the context of social class, one of the major differences between higher and lower social class environments is that opportunities for status, achievement, advancement, power (in the form of elite universities, prestigious jobs, etc.) and wealth is concentrated in higher socioeconomic environments. Therefore, we predict that individuals from both higher and lower social class backgrounds will find greater markers of success and more opportunities in higher socioeconomic environments than lower socioeconomic environments.

PREDICTION 1A: Individuals from both higher and lower social class backgrounds will agree that higher socioeconomic environments are more conducive to status attainment than lower socioeconomic environments.

Aspirational Status. Even though individuals from lower social class backgrounds go into higher socioeconomic environments due to the desire to obtain higher status, we are not

suggesting that individuals believe that they will obtain higher status *immediately* as a function of being in the environment. Instead, what we are suggesting is that people believe that higher socioeconomic environments are more conducive to goal attainment: i.e., helping people achieve higher status *in the future*, as compared to lower socioeconomic environments. This is a concept we refer to as the aspirational status of the environment.

Past research actually suggests that individuals from lower social class backgrounds moving into higher socioeconomic environments experience a decrease in relative status (that is, status vis a vis others in the environment) at the onset since they are now comparing themselves with wealthier individuals. For example, low income families who move into high income neighborhoods experience relative deprivation (Smith & Huo, 2014) – the move causes them to engage in upward social comparisons with their new neighbors and they consequently feel lower in relative status and worse about themselves (Kessler et al., 2014). Similarly, individuals from lower social class backgrounds may be high status individuals such as breadwinners in their families and home communities but work in low-paying jobs in high-income neighborhoods, resulting in a loss in relative status as they go from lower socioeconomic to higher socioeconomic environments. Despite the potential loss of relative status at the onset, we suggest that individuals from lower social class backgrounds enter higher socioeconomic environments in search of status markers such as better paying jobs and educational attainment because those things will lead to an increase in status in the future. If this is the case, then we predict that all participants will think that higher socioeconomic environments represent a positive future for themselves more so than lower socioeconomic environments.

PREDICTION 1B: *Individuals from both higher and lower social class backgrounds will agree that higher socioeconomic environments are more representative of future status attainment than lower socioeconomic environments.*

The Role of Interpersonal Belonging Needs. Thus far, we have focused on individuals' desire for status and resources, primarily because differential amounts of resources and opportunities to obtain status are an important way in which higher and lower socioeconomic environments differ. However, human beings have another important need that can be met in physical environments. People are motivated to affiliate with others and to form close interpersonal relationships in which they are cared for and accepted – i.e., to feel like they belong (Baumeister & Leary, 1995).

Components of a physical environment can influence whether or not people feel like they belong in that environment. For example, the physical objects in an environment provide us with clues about the people who inhabit those environments, including their personality traits (Gosling, Ko, Mannarelli, & Morris, 2002). Based on these objects and the resulting judgments that we form about the people likely to inhabit those environments, we make judgments about whether those people are similar to us. This, in turn, influences whether we feel like we belong in those environments (Cheryan, Plaut, Davies, & Steele, 2009). Feeling like we have a lack of people who are "like us" in a given environment leads to a lack of social fit, which decreases feelings of belonging (Walton & Cohen, 2007). Therefore, both the physical objects in an environment and also the people who inhabit those environments can influence our feelings of belonging in that environment.

In the context of social class, people are often separated into different physical environments based on their social class backgrounds and social class identities. In general,

individuals from higher and lower social class backgrounds live in different neighborhoods, attend different schools, have different occupations, and attend different social and cultural events (Domhoff, 1998). Therefore, people have the most opportunity to come into contact, affiliate and form relationships with others who are from a similar social class background as themselves (Malacarne, 2017). This suggests that the majority of our interpersonal relationships are formed within our own social class. Therefore, people are likely to feel more belonging in environments which match their social class backgrounds because those environments are filled with interpersonal connections. This may be especially true for individuals from higher social class backgrounds, who generally avoid lower socioeconomic environments and therefore do not have the opportunity to form interpersonal relationships across social class lines.

Another reason that people from higher social class backgrounds are likely to feel more belonging in higher socioeconomic environments such as elite universities is because these environments contain norms and values which are congruent with their own. For example, students from higher social class backgrounds have been socialized with individualistic cultural norms which are shared by the learning environments of elite universities (Stephens, Townsend, Markus, & Phillips, 2012). This norms match can lead to greater feelings of belonging.

Past research has also suggested that students from higher social class backgrounds experience greater belonging at elite universities because the socioeconomic environment of elite universities match the socioeconomic environments that those students were raised in (Kusserow, 2012). Consequently, students from higher social class backgrounds are more likely to say that they feel like they belong in these high social class spaces than students from lower social class backgrounds (Ostrove, 2003; Ostrove & Long, 2007). Therefore, we predict that

individuals from higher social class backgrounds will experience greater belonging in higher socioeconomic environments than lower socioeconomic environments.

The amount of belonging that individuals from lower social class backgrounds feel in higher versus lower socioeconomic environments is a more complex question to answer. Most of the research in this area has been done on low-income and first generation students who attend schools in higher socioeconomic neighborhoods, such as private schools and elite universities. One possibility is that, similar to individuals from higher social class backgrounds, individuals from lower social class backgrounds feel more belonging in environments that match their social class backgrounds. This is supported by research that suggests that transitioning from a lower socioeconomic environment to a higher socioeconomic environment is difficult for low-income students due to a loss in feelings of belonging (Housel & Harvey, 2009; Johnson, Richeson, & Finkel, 2011; Ostrove & Long, 2007) and the strain of trying to maintain ties with friends and family from lower income home communities while attending college in a higher income community (Lee & Kramer, 2013). Based on this research, it might be expected that people from lower social class backgrounds will feel less belonging in higher socioeconomic environments compared to lower socioeconomic environments.

However, there is also emerging research that as students from lower social class backgrounds spend more time in higher socioeconomic environments, they become more familiar with the norms and cultural values of these environments, leading to better outcomes including increased feelings of inclusion. For example, Jack (2016) showed that students from lower social class backgrounds who are exposed to higher socioeconomic environments before entering college, such as via boarding schools or preparatory schools, show greater academic engagement in college than students who have less experience with these environments. His

research suggests that as students from lower social class backgrounds gain experience with higher socioeconomic environments, these students gain cultural knowledge about these environments and can adapt to these settings. Students can also develop strategies which enable them to fit into both higher and lower socioeconomic environments: For example, strategies for moving between home and school and adjusting to each setting (Carter, 2003). If they are successful at fitting into both settings, then we might expect these students to express similar levels of belonging in higher versus lower socioeconomic environments.

Therefore, we predict that while individuals from higher social class backgrounds may feel more belonging in higher socioeconomic environments than lower socioeconomic environments, individuals from lower social class backgrounds may feel equal amounts of belonging in higher and lower socioeconomic backgrounds.

PREDICTION 2A: Individuals from higher social class backgrounds will feel more belonging in higher socioeconomic environments than lower socioeconomic environments, while individuals from lower social class backgrounds will feel similar amounts of belonging in both types of social class environments.

Aspirational Belonging. The amount of belonging that individuals from lower social class backgrounds profess to feel in higher socioeconomic environments may be influenced by their desires to gain upward social mobility and belong to these environments in the future, something we refer to as aspirational belonging. Aspirational belonging may be especially relevant for the low-income and first generation college students in our sample, since they enter the higher socioeconomic environments of elite universities in the hopes of upward social mobility and changing social classes. Therefore, we theorize that the aspirational component of

higher socioeconomic environments boosts feelings of belonging for students from lower social class backgrounds in these environments.

We test this idea by measuring aspirational belonging (i.e., anticipated belonging in the future) in higher and lower socioeconomic environments among students from both higher and lower social class backgrounds. We predict that students from lower social class backgrounds will report greater aspirational belonging for higher socioeconomic environments as compared to the lower socioeconomic environments that they were raised in, since this would represent upward social mobility for them. Furthermore, we predict that students from higher social class backgrounds will also report greater levels of future belonging in higher socioeconomic environments as compared to lower socioeconomic environments. This is because belonging to lower socioeconomic environments in the future would represent downward social mobility for this group, something they presumably hope to avoid. Therefore, we anticipate that both students from higher and lower social class backgrounds will report a greater desire for belonging to higher socioeconomic environments in the future than lower socioeconomic environments.

PREDICTION 2B: *Individuals from both higher and lower social class backgrounds will report greater aspirational belonging in higher socioeconomic environments than lower socioeconomic environments.*

In comparing the anticipated responses of students from higher and lower social class backgrounds to different socioeconomic environments, we see a clear pattern emerge for students from higher social class backgrounds. We anticipate that they will feel greater belonging and status in higher socioeconomic environments, both at the present time and also in the future, as compared to lower socioeconomic environments. However, a more complicated picture emerges for students from lower social class backgrounds. Because they have interpersonal ties

in lower socioeconomic home environments but currently spend their time in higher socioeconomic environments for educational purposes, we expect them report similar levels of belonging in both types of environments. However, we think that they will agree with students from higher social class backgrounds that higher socioeconomic environments are more conducive to status attainment than lower socioeconomic environments. Furthermore, due to their desire for upward social mobility and future aspirations, we predict that students from lower social class backgrounds will report greater levels of aspirational / future belonging and aspirational /future status in higher socioeconomic environments as compared to lower socioeconomic environments.

Our predictions for how physical environments satisfy the key psychological needs of individuals from higher versus lower social class backgrounds support the motivational asymmetry framework: Because individuals from higher social class backgrounds have all of their needs met in higher socioeconomic environments, they are not motivated to go into lower socioeconomic environments, and may even tend to avoid them. However, individuals from lower social class backgrounds are motivated to go into higher socioeconomic environments in search of higher status attainment, while still feeling connected to lower socioeconomic environments because of their interpersonal / belonging ties.

Need Satisfaction and Attention to Social Class Cues

Another important test of the motivational asymmetry framework is the amount of attention that individuals from higher and lower social class backgrounds pay to higher versus lower socioeconomic environments. We suggest that individuals from higher social class backgrounds will pay more attention to higher socioeconomic environments as compared to

lower socioeconomic environments, while individuals from lower social class backgrounds will be motivated to attend to both higher and lower socioeconomic environments.

Individuals from higher social class backgrounds. For individuals from higher social class backgrounds, higher socioeconomic environments match their social class identities and are also full of resources. Therefore, higher socioeconomic environments offer these individuals the opportunity for interpersonal belonging and also satisfy their resource needs. Because their interpersonal and resource needs are satisfied in higher social class environments, they have no need to go into lower social class environments and these environments hold less relevance for them. Therefore, we predict that individuals from higher social class backgrounds will be less attentive to lower socioeconomic environments than higher socioeconomic environments.

Individuals from lower social class backgrounds. For individuals from lower social class backgrounds, a different and more complex picture emerges. These individuals have grown up in lower socioeconomic environments and likely have friends and family in these environments, so these environments are relevant to their need for belonging. However, their desire for status and resources takes them into higher socioeconomic environments for educational and employment opportunities. We posit that these individuals' desire to maintain interpersonal ties with their home environments while succeeding in new school and work environments should motivate them to attend to both higher and lower socioeconomic environments, since both environments hold relevance for them.

PREDICTION 3: Individuals from higher social class backgrounds will pay more attention to higher socioeconomic environments than lower socioeconomic environments, while individuals from lower social class backgrounds will pay similar amounts of attention towards both types of socioeconomic environments

An important consideration for attention as an outcome variable is whether individuals from higher versus lower social class backgrounds differ in the amount of attention that they pay to environmental cues *in general*, as a function of their social class background. This question was less relevant when we were examining belonging and status, since both of those constructs have been proposed to be fundamental needs that all human beings share to roughly the same extent (Anderson et al., 2015; Baumeister & Leary, 1995). However, in the area of attention, past research suggests that individuals from lower social class backgrounds tend to pay more attention to environmental cues *in general* than individuals from higher social class backgrounds, a concept known as contextual accuracy.

Social Class and Contextual Accuracy. In addition to having more motivation to pay attention to different socioeconomic environments than individuals from higher social class backgrounds, individuals from lower social class backgrounds may also be more skilled at actively attending to environmental contexts in general. Being from a lower social class background means spending time in lower socioeconomic environments which are often characterized by uncertainty and external threats (Kusserow, 1999). In order to maintain vigilance to threats in these environments, individuals from lower social class backgrounds tend to focus on external, contextual cues (Kraus, Piff, & Keltner, 2009) more so than individuals from higher social class backgrounds. For example, individuals from lower social class backgrounds are more accurate at judging others' emotions (Kraus, Cote, & Keltner, 2010) than individuals from higher social class backgrounds.

One of the major advantages of having high socioeconomic status is being able to exert control over one's environment (Johnson & Krueger, 2006) and not having to adapt to others. Individuals from higher social class backgrounds can exert more control over their circumstances

and situations due to their increased power and resources, and this makes them more self-focused and less other-focused or contextually-focused. For example, in a get-to-know-you activity between university students, individuals from higher social class backgrounds showed more disengaged behaviors (doodling, looking away from their interaction partners) while individuals from lower social class backgrounds showed more engagement with others, such as head nods (Kraus & Keltner, 2009).

Past research has also suggested that individuals from different social class backgrounds differ in terms of their attribution styles – i.e., how they explain the causes of events (Kraus et al., 2009). Because individuals from lower social class backgrounds often do not have control over their circumstances and situations, they have a more external / contextual attribution style, in which they tend to attribute causes for events to external factors outside of one's personal control. In contrast, individuals from higher social class backgrounds are used to having more personal control over their outcomes. Therefore, they tend to attribute causes for events to internal / dispositional factors which are within the scope of one's control. If individuals from lower social class backgrounds tend towards more external / contextual attributions for events, it stands to reason that part of the reason they do so is because they are more focused on external factors, such as the environment.

Therefore, based on past research, we predict that individuals from lower social class backgrounds will be more attentive to contextual cues in the environment than individuals from higher social class backgrounds overall.

PREDICTION 4: Individuals from lower social class backgrounds will pay more attention to environments overall than individuals from higher social class backgrounds.

Paying attention to contextual cues in the environment is important for individuals from lower social class backgrounds because it may assist them in adapting to new environments, such as the higher socioeconomic environments which were previously unfamiliar to them. We also believe that individuals from lower social class backgrounds, many of whom move between socioeconomic environments for work or school, may have the ability to switch between the cultural values of higher and lower social classes, a concept known as cultural frame switching (Hong, Chiu, & Kung, 1997). Past research suggests that individuals from lower social class backgrounds may be able to switch between different social class cultural identities depending on the social class context. Over the long term, they may incorporate both higher and lower social class identities within the self, leading to the development of a bicultural social class identity (Herrmann & Varnum, 2018). This bicultural social class identity may have benefits for individuals from lower social class backgrounds such as increased adaptability and flexibility, which can help them navigate new / higher socioeconomic contexts.

Individuals from Lower Social Class Backgrounds in Higher Socioeconomic Environments: The Role of Social Class Biculturalism

Individuals from lower social class backgrounds who have experiences with higher socioeconomic environments may come to develop a social class bicultural identity which integrates the values of both higher and lower social class cultures. Biculturalism has commonly been associated with individuals who have experiences with two cultures and have subsequently incorporated both cultures within the self (Luna, Ringberg, & Peracchio, 2008). Students from working class or lower class backgrounds who attend middle or upper class schools can be considered social class biculturals (Stephens, Markus, & Phillips, 2014) since they come from a lower class culture and must learn to navigate an upper class culture. There is emerging research

that first generation college students consider themselves to be social class biculturals (Herrmann & Varnum, 2018). In addition, some low-income students entering elite universities attended private high schools (often on scholarships) and / or preparatory programs before entering college. Their experiences with multiple social class contexts assisted with their transition to an elite university environment by teaching them skills such as how to interact with teachers (Jack, 2016). In contrast, low-income students who attended high schools in their own communities and did not have experiences with higher socioeconomic environments fared worse when they entered college. This suggests that students who have experience with both their home communities and elite educational settings may have an advantage when they enter college partly because they have learned to navigate different socioeconomic environments. Similarly, research suggests that working class people who learn middle class ways and also retain working class ways have higher well-being than those who do not (LaFromboise, Coleman, & Gerton, 1993).

This concept is known as identity integration – bringing two different identities together and integrating them within the self. Students who feel that there is integration and compatibility between two valued identities, such as their home and school identities or their independent and interdependent identities, perform better than students who feel identity conflict (Benet-Martínez, Leu, Lee, & Morris, 2002). The research on identity integration suggests that individuals from lower social class backgrounds in higher socioeconomic environments can develop a bicultural social class identity, consisting of both their original lower social class identity and a higher social class identity which comes from contact with higher socioeconomic environments, In turn, this bicultural identity can have positive consequences such as increased adaptability and flexibility in different socioeconomic environments.

If students from lower social class backgrounds attending elite universities can have bicultural identities, then they should be able to switch from the values of one culture to another more easily than individuals from higher social class backgrounds, who are monocultural. This is potentially an advantage of individuals from lower social class backgrounds experiencing higher socioeconomic environments – they learn to integrate both lower class and upper class cultures within themselves and can switch from the values of one culture to the other as the need arises. For bicultural individuals, both cultures are available to guide their feelings, thoughts, and actions (Hong, Morris, Chiu, & Benet-Martinez, 2000; LaFromboise et al., 1993). Therefore, we predict that individuals from lower social class backgrounds who have experiences with higher socioeconomic environments will be able to frame switch based on the environment that they find themselves in. As a result, they will be able to adapt to different environments more easily than individuals from higher social class backgrounds. Over time and with prolonged exposure, both social class identities may be integrated within the self, leading to the development of a bicultural social class identity.

PREDICTION 5: Individuals from lower social class backgrounds are more likely to say that they have a bicultural social class identity than individuals from higher social class backgrounds

Individuals from Higher Social Class Backgrounds in Lower Socioeconomic Environments: The Role of Relative Deprivation and Threat Responses

If individuals from lower social class backgrounds can frame switch from one cultural context to another when they are in higher socioeconomic environments, what about individuals from higher social class backgrounds in lower socioeconomic environments? Are the consequences similar? We predict that these processes will not occur to the same extent for

individuals from higher social class backgrounds. Compared to individuals from lower social class backgrounds, individuals from higher social class backgrounds are not as motivated to experience different (i.e., lower) socioeconomic environments. Even if individuals from higher social class backgrounds find themselves in lower socioeconomic environments, these environments lack resources and bring up the threat of downward social mobility, all of which suggests that individuals from higher social class backgrounds will resist adaptation to these environments. Therefore, we predict that individuals from higher social class backgrounds will be worse at adapting to new social class environments than individuals from lower social class backgrounds.

There is a dearth of research on the experiences of individuals from higher social class backgrounds in lower socioeconomic environments. However, there are a few psychological concepts which lend support to the suggestion that the experience of exposure to new lower socioeconomic contexts is different than exposure to new higher socioeconomic contexts. Prospect theory (Kahneman & Tversky, 1979) suggests that losses hurt more than gains, and that consequently humans have loss aversion – they are motivated more to avoid losses than they are to achieve an equal amount of gains. Therefore, individuals from higher social class backgrounds may experience lower socioeconomic environments as a bigger change than lower social class individuals in higher socioeconomic environments. This is compounded by the fact that individuals from higher social class backgrounds typically have less experience with lower socioeconomic environments than the inverse, and must therefore learn more new information about these environments when they encounter them.

Individuals from higher social class backgrounds in lower socioeconomic environments may also feel relative deprivation (Smith & Huo, 2014) – the feeling that one has less resources

compared to others and this disadvantage is undeserved. In recent years, relative deprivation has been exhibited by downwardly mobile White Americans who compare themselves with those that they feel have unfairly benefitted from the system (Hochschild, 2016), usually immigrants and racial minorities. This leads to increased anger and resentment towards members of other groups, versus trying to adapt to new circumstances or environments. Therefore, we predict that individuals from higher social class backgrounds in lower socioeconomic environments would experience a variety of negative emotions which would hinder their adaptation to these environments. The negative consequences may be exacerbated by the fact that individuals from higher social class backgrounds typically do not have to adapt to lower socioeconomic environments and therefore do not have the tool of cultural frame switching at their disposal. Therefore, individuals from lower social class backgrounds, who have more experience adjusting to different environments and also more motivation to adapt to these environments, may be more adaptable than individuals from higher social class backgrounds.

PREDICTION 6: Individuals from lower social class backgrounds are more adaptable than individuals from higher social class backgrounds

Overview of Current Research

Across three studies, we test the motivational asymmetry framework for individuals from higher and lower social class backgrounds in higher and lower socioeconomic environments. We postulate that individuals from higher social class backgrounds are not motivated to enter lower socioeconomic environments because those environments lack both resources and interpersonal connections for them. Therefore, we predict that they will express less feelings of interpersonal belonging in lower socioeconomic environments and believe that these environments are less conducive to goal attainment, both in the present and in the future, as compared to higher

socioeconomic environments. Furthermore, they will pay more attention to higher socioeconomic environments than lower socioeconomic environments.

Individuals from lower social class backgrounds are motivated to enter new socioeconomic environments which do not match their social class background (i.e., higher socioeconomic environments) due to the resources and potential for goal attainment that these environments offer. As they enter these new socioeconomic environments, they may develop interpersonal relationships in these new environments while still maintaining interpersonal ties to lower socioeconomic environments. Therefore, we predict that individuals from lower social class backgrounds will agree with individuals from higher social class backgrounds that higher socioeconomic environments are more conducive to status goals than lower socioeconomic environments. However, we think that they will feel similar levels of belonging across both types of socioeconomic environments. We also predict that individuals from lower social class backgrounds will attend equally to cues in both types of socioeconomic environments, which will allow them to develop a bicultural social class identity and increased adaptivity compared to individuals from higher social class backgrounds.

In Study 1, we examine the extent to which different socioeconomic environments satisfy the resource / status and interpersonal / belonging needs of individuals from higher and lower social class backgrounds. Specifically, we hypothesize that:

- Individuals from higher and lower social class backgrounds will agree that higher socioeconomic environments are better at providing access to opportunities and are associated with success more so than lower socioeconomic environments (Prediction 1A)
- Individuals from higher social class backgrounds will feel more belonging in higher socioeconomic environments than lower socioeconomic environments, while individuals

from lower social class backgrounds will feel equal amounts of belonging in both environments (Prediction 2A)

In Study 2, we attempt to replicate the findings from Study 1. In addition, we examine the aspirational value of higher versus lower socioeconomic environments by measuring ratings of anticipated future belonging and anticipated future status in each environment. We also examine the degree to which individuals from higher and lower social class backgrounds pay attention to each environment. We hypothesize that:

- Individuals from higher and lower social class backgrounds will agree that higher socioeconomic environments are associated with future success, more so than lower socioeconomic environments (Prediction 1B)
- Individuals from higher and lower social class backgrounds will agree that higher socioeconomic environments are where they want to belong in the future, more so than lower socioeconomic environments (Prediction 2B)
- Individuals from higher social class backgrounds will pay more attention to higher socioeconomic environments than lower socioeconomic environments, while individuals from lower social class backgrounds will pay similar amounts of attention towards both types of environments (Prediction 3)
- Individuals from lower social class backgrounds will pay more attention to environmental stimuli overall than individuals from higher social class backgrounds (Prediction 4)

In Study 3, we examine potential reasons for the patterns of results observed in Studies 1 and 2, by measuring participants' experiences with different socioeconomic environments, including the degree to which individuals from higher and lower social class backgrounds move between different socioeconomic environments. We also measure two potential constructs in

which participants from higher and lower social class backgrounds are theorized to differ from one another – the development of a bicultural social class identity, and adaptivity. We hypothesize that:

- Individuals from lower social class backgrounds are more likely to feel that they have a bicultural social class identity than individuals from higher social class backgrounds (Prediction 5)
- Individuals from lower social class backgrounds are more likely to say that they are adaptable than individuals from higher social class backgrounds (Prediction 6)

Study 1

Goals

In Study 1, we test participants' responses to a variety of higher and lower socioeconomic environments, particularly with regards to the extent to which they feel these environments meet their needs for status / achievement and interpersonal belonging. We predict that students from higher social class backgrounds and lower social class backgrounds will agree that higher socioeconomic environments are more conducive to status needs than lower socioeconomic environments. However, we predict that results will differ for perceptions of interpersonal belonging based on students' social class background, such that students from higher social class backgrounds will express greater belonging in higher socioeconomic environments than lower socioeconomic environments, while students from lower socioeconomic backgrounds will express similar levels of belonging across environments.

Furthermore, we seek to validate our operationalizations of status and belonging by adding in manipulation check questions on constructs which are theorized to be similar to each of our two main dependent variables. We test how aesthetically pleasing each environment is

(which we theorize is closely related to the status of the environment) and how familiar each environment is (which we theorize is closely related to belonging in the environment.)

This study is an important test of the motivational asymmetry framework because we have theorized that it is the satisfaction of fundamental needs which motivates individuals to enter new socioeconomic environments versus staying in their current environments. If higher socioeconomic environments meet the status and belonging needs of students from higher social class backgrounds better than lower socioeconomic environments, then that provides an explanation as to why they would choose not to enter lower socioeconomic environments. And if students from lower social class backgrounds perceive higher socioeconomic environments to be more conducive to status attainment than lower socioeconomic environments, that provides an explanation for why they might be motivated to enter these environments.

Method

Participants. Participants were UCLA students who completed a pre-qualification survey sent from the Registrar's Office. The prequalification survey asked questions about markers of social class such as students' family income, parents' educational attainment and parents' occupation type. We separated students into socioeconomic classes based on family income. Students whose annual family income was $100,000 or above (roughly the 70th percentile for household incomes in California according to the US Census Bureau) were classified as high-SES. Students whose annual family incomes were $50,000 or below (roughly the 40th percentile for household incomes in California) were classified as low-SES. Students whose annual family incomes were between $50,000 and $100,000 were classified as middle class. Because we were interested in comparing students from high-SES versus low-SES backgrounds, students who were classified as middle class based on the prequalification survey

were not invited to participate in the current set of studies. Participant characteristics grouped by SES are presented in Table 1.

Table 1
Participant characteristics for Studies 1-3 (grouped by SES)

Variable	Study 1	Study 2	Study 3
N	184	207	232
High SES	95	105	125
Percent female	65.3	78.1	65.6
Ethnicity (%)			
African American	0	0	.8
Asian American	48.4	44.8	50.4
Latinx	7.4	7.6	9.6
Native American	0	1	0
White	53.7	61.9	45.6
Other	6.3	4.8	6.4
Low SES	89	102	107
Percent female	76.4	69.6	76.6
Ethnicity (%)			
African American	4.5	2.9	3.7
Asian American	41.6	39.2	37.4
Latinx	38.2	43.1	41.1
Native American	1.1	2	.9
White	21.3	16.7	18.7
Other	3.4	3.9	4.7

In Study 1, we collected data from 202 students. The sample size was determined by using G*Power to calculate the sample size needed to detect small to medium effect sizes with 80% power (Faul, Erdfelder, Buchner, & Lang, 2009). Fifteen students were excluded for indicating that their annual family incomes fell between $50,000 and $100,000, which was a departure from what they indicated in the pre-qualification survey, and one student was excluded for not reporting their family income. In addition, one student was excluded for being under the age of 18 and one student was excluded for providing the wrong answer to an attention check question (a simple arithmetic problem).

The resulting sample consisted of 184 students, 89 of whom were classified as low-SES and 95 of whom were classified as high-SES. Ages of students ranged from 18-38, with the average age at 19.91 years (*SD*=1.91). There were 130 women, 51 men and 3 participants who did not identify as either gender. The racial / ethnic composition of the sample was similar to the demographics of the UCLA student population – the three largest racial /ethnic groups represented in the sample were Asians / Asian Americans (45.1%), Whites (38%) and Latinos/as (22.3%). Students were allowed to identify with more than one racial / ethnic group. Most students (93.5%) were born in the United States.

Experimental stimuli. The experimental stimuli consisted of 10 images of physical environments. Five of the images represented high-SES environments, and 5 of the images represented low-SES environments. In selecting the images, we began by looking at previous research that used images of different socioeconomic environments. Jetten, Mols, and Postmes (2015) had experimental stimuli which depicted homes in higher versus lower socioeconomic neighborhoods. The high-SES and low-SES homes used in our studies came from that stimuli. In addition, we brainstormed four additional types of physical environments which people of all social classes potentially interacted with on a regular basis. The four additional environments we chose to depict were offices, supermarkets, parks and libraries (libraries were chosen because our sample consisted of university students who presumably studied in libraries on a regular basis). To find an appropriate high-SES and low-SES image for each environment type, we conducted a Google Images search using the words "high-end" + the type of environment (for example, high end supermarket) for high-SES environments and "low-end" or "run-down" + the type of environment for the low-SES environments. Images of physical environments were matched as closely as possible for camera angle, level of detail, and whether they were exterior or interior

shots of the environment. In the study, we added a manipulation check question to ensure that high-SES and low-SES environments were perceived as such, by asking how aesthetically pleasing each environment was. (Past research has suggested that high-SES environments are more aesthetically pleasing than low-SES environments, Kraus et al., 2011).

Experimental design and procedures. Study 1 was an online study which featured a two-level multilevel design. The level one variable was within subjects and consisted of images of physical environments that students viewed. The physical environments were arranged in a 2 (environment SES: high / low) by 5 (environment type) design, for a total of 10 images. The five types of environments depicted in the images were houses, supermarkets, libraries, offices and parks. Each type of environment had a high-SES image and a corresponding low-SES image (see Appendix A for images of each environment). The level two variable was at the subject level and was student SES (high / low), which was between subjects.

Students were told that the study was on perceptions of physical spaces. They were asked to view a series of images, imagine themselves in each place and consider how it would make them feel to be in each of the environments depicted. They viewed each of the 10 images in random order and answered some questions about each image based on their impressions of the environment depicted in the image. After viewing and answering questions about all 10 images, they completed some demographic measures and exited the survey.

Dependent variables. There were two main dependent variables of interest in Study 1: Perceptions of students' belonging *in* the environment and perceptions of the status *of* the environment. In addition, there was a manipulation check question for the belonging question and a manipulation check question for the status question.

Manipulation Check Questions. Study 1 featured two manipulation checks – one for status and one for belonging. The manipulation check question for status was intended to ensure that the high socioeconomic environments and the low socioeconomic environments were perceived as such. Because past research has suggested that high versus low socioeconomic environments differ in terms of aesthetics (Kraus et al., 2009), the manipulation check question for status asked about how aesthetically pleasing the environment was: "This is the type of place where everything looks nice" and was measured on a scale of 1 (Not at all) to 5 (Very much so).

Similarly, for belonging research suggests that familiarity is related to feelings of belonging (Stephens, Fryberg, Markus, Johnson, & Covarrubias, 2012). Therefore, the manipulation check question for belonging asked about participants' familiarity with the environment: "How familiar does this environment feel to you?" and was measured on a 1 (Not at all familiar) to 5 (Very familiar) scale.

Status of the Environment. Students' perceptions of the status of the environment was measured by two questions: "This is the type of place where successful people spend their time" and "This is the type of place that people associate with opportunities." The average correlation between the two questions across all 10 images was r=.67 and all correlations were significant at the p=.01 level. The questions were measured on a scale of 1 (Not at all) to 5 (Very much so).

Belonging in the Environment. Perceptions of students' belonging in each environment consisted of two questions: "This is the type of place where my family and I would fit right in," and "This is the type of place where I feel like I belong." The average correlation between the two questions across all 10 images was r=.77 and all correlations were significant at the p=.01 level. The questions were measured on a scale of 1 (Not at all) to 5 (Very much so).

Results

The data were analyzed using the MIXED command in SPSS to test linear mixed effects models for each of the outcome variables. The level one variables were Image SES (Low vs. High), and Picture Type (Libraries, Houses, Offices, Supermarkets and Grocery Stores). All level one variables were within subjects. The level two variable was participants' SES (Low vs. High) and was between subjects.

Manipulation Check Questions. We began by examining the manipulation check questions –aesthetically pleasing for status and familiarity for belonging.

Aesthetically Pleasing. As expected, tests of fixed effects found a significant effect of Image SES, $F(1,1645.17)=4334.56$, $p<.001$, such that overall, participants felt the high-SES environments ($M=4.49$) were more aesthetically pleasing than low-SES environments ($M=2.04$). There was no significant overall difference in aesthetic judgments of environments between participants from high and low-SES backgrounds, $F(1,182.07)=2.42$, $p=.12$. However, there was a significant interaction between participant SES and Image SES, $F(1,1645.17)=14.35$, $p<.001$ (Figure 2). Simple effects analysis showed that both participants from high-SES backgrounds and participants from low-SES backgrounds agreed that high-SES environments were more aesthetically pleasing than low-SES environments ($M=4.52$ vs. $M=1.92$, $F(1,1645.07)=2507.08$, $p<.001$ for high-SES participants and $M=4.46$ vs. $M=2.15$, $F(1,1645.26)=1863.21$, $p<.001$ for low-SES participants). However, results differed between participants from high versus low-SES backgrounds when examining results by Image SES. Participants did not differ in how they construed high-SES environments: ($M=4.52$ for high-SES participants vs. $M=4.46$ for low-SES participants), $F(1,370.93)=.64$, $p=.42$. However, participants from low-SES backgrounds felt

low-SES environments were significantly more aesthetically pleasing than participants from high-SES backgrounds (M=2.15 vs M=1.92), F(1,370.44)=11.52, p<.001.

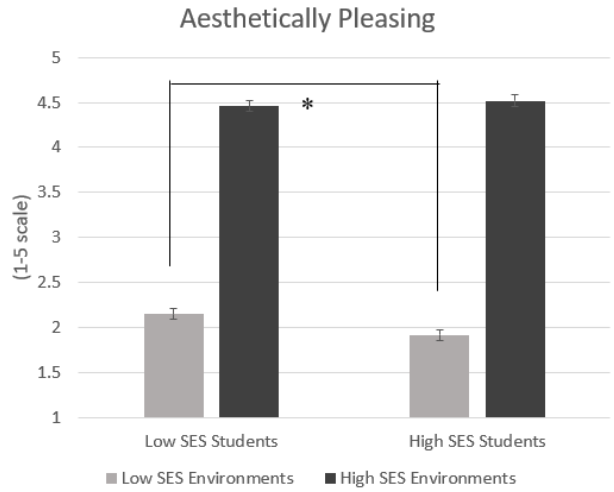

Figure 2. High and low SES students' perceptions of aesthetics of different SES environments (Study 1).

Familiarity. Tests of fixed effects found a significant effect of Image SES, F(1,1644.30)=100.29, p<.001, such that overall, participants felt the high-SES environments (M=3.39) were more familiar than low-SES environments (M=2.90). There was no significant overall difference in familiarity between participants from high and low-SES backgrounds, F(1,182.14)=.39, p=.54. However, there was a significant interaction between participant SES and Image SES, F(1,1644.30)=172.85, p<.001 (Figure 3). Simple effects analysis showed that participants from high-SES backgrounds reported that they felt the high-SES environments were more familiar to them (M=3.68) than low-SES environments (M=2.56), F(1,1644.14)=277.62, p<.001. However, participants from low-SES backgrounds felt that high-SES environments (M=3.09) were *less* familiar to them than low-SES environments (M=3.24), F(1,1644.45)=4.75, p=.03.

We also examined results by Image SES. Participants from high-SES backgrounds felt significantly more familiar with high-SES environments than participants from low-SES backgrounds, M=3.68 vs. M=3.09, F(1,337.28)=39.96, p<.001. However, for low-SES environments the results were flipped: Participants from high-SES backgrounds felt significantly *less* familiar with low-SES environments than participants from low-SES backgrounds, M=2.56 vs M=3.24, F(1,337.28)=54.16, p<.001.

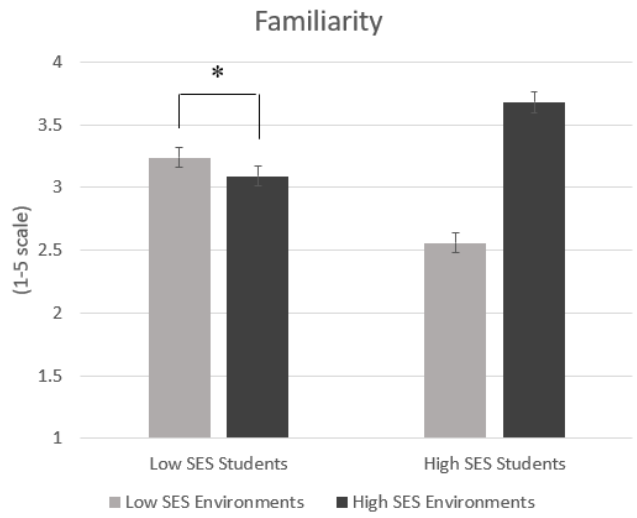

Figure 3. High and low SES students' familiarity with different SES environments (Study 1).

Status of the Environment. Tests of fixed effects found a significant effect of Image SES, F(1,1646)=2187.67, p<.001, such that overall, participants felt that the high-SES environments had higher status (M=3.93) than low-SES environments (M=2.15). There was no significant overall difference in perceptions of status between participants from high and low-SES backgrounds, F(1,182)=.96, p=.33. There was a significant interaction between participant SES and Image SES, F(1,1646)=4.51, p=.03 (Figure 4). Simple effects analysis showed that both participants from high-SES backgrounds and participants from low-SES backgrounds felt that

high-SES environments had higher status than low-SES environments, $F(1,1646)=1235.73$, $p<.001$ for high-SES participants and $F(1,1646)=965.26$, $p<.001$ for low-SES participants.

Examining results by Image SES, we found that there were no significant differences in how high versus low-SES participants viewed high-SES environments, $F(1,357.12)=.11$, $p=.75$. However, we did find a significant difference between how high versus low-SES participants viewed low-SES environments, $F(1,357.12)=3.89$, $p=.05$. Participants from low-SES backgrounds thought that low-SES environments had more status ($M=2.22$) than participants from high-SES backgrounds ($M=2.08$).

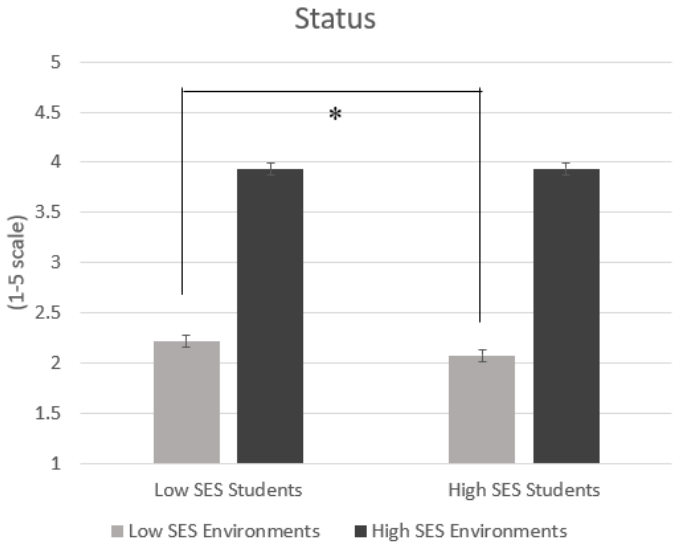

Figure 4. Effect of different SES environments on high and low SES students' status perceptions (Study 1).

Belonging in the Environment. Tests of fixed effects found a significant effect of Image SES, $F(1,1646)=208.70$, $p<.001$, such that overall, participants felt more belonging in high-SES environments ($M=3.19$) than low-SES environments ($M=2.51$). There was no significant overall difference in belonging between participants from high and low-SES backgrounds, $F(1,182)=.68$,

p=.41. However, there was a significant interaction between participant SES and Image SES, $F(1,1646)=185.71$, $p<.001$ (Figure 5). Simple effects analysis showed that participants from high-SES backgrounds reported that they felt more belonging in high-SES environments ($M=3.54$) than low-SES environments ($M=2.23$), $F(1,1646)=407.35$, $p<.001$. However, participants from low-SES backgrounds felt similar amounts of belonging in high-SES environments ($M=2.84$) and low-SES environments ($M=2.80$), $F(1,1646)=.33$, $p=.57$.

We also examined results by Image SES. In high-SES environments, participants from high-SES backgrounds felt significantly more belonging, $M=3.54$, than participants from low-SES backgrounds, $M=2.84$, $F(1,337.71)=60.91$, $p<.001$. In low-SES environments, participants from low-SES backgrounds felt significantly more belonging than participants from low-SES backgrounds ($M=2.80$ *vs* $M=2.23$), $F(1,337.71)=40.90$, $p<.001$.

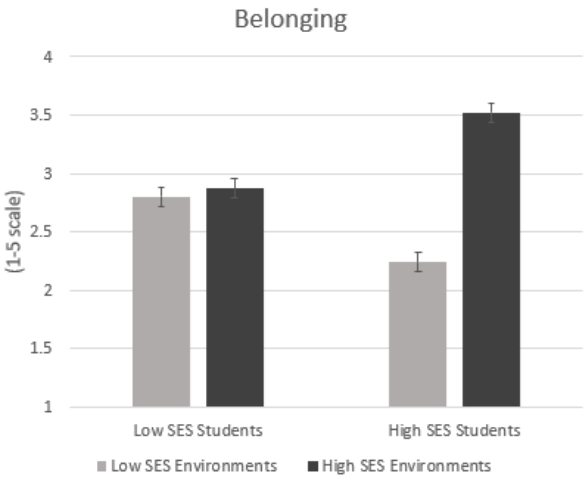

Figure 5. Effect of different SES environments on high and low SES students' belonging (Study 1).

Discussion

In Study 1, we saw that both high and low-SES participants agreed that high-SES environments were environments that supported goal attainment and were associated with success and opportunities, more so than low-SES environments. However, we saw that the amount of belonging participants felt in high and low-SES environments depended on their own SES. Participants from high-SES backgrounds felt significantly more belonging in high-SES environments than low-SES environments, but participants from low-SES backgrounds felt similar amounts of belonging in both high and low-SES environments. This suggests that participants' psychological experiences in those environments is dependent on their socioeconomic status. We also saw that participants from low-SES backgrounds responded more positively to low-SES environments than participants from high-SES backgrounds – they rated those environments as higher in status and more aesthetically pleasing than participants from high-SES backgrounds did. Participants from low-SES backgrounds also stated that high-SES environments were less familiar to them than low-SES environments, even though they purported to feel equal levels of belonging in each environment. This suggests that for participants from low-SES backgrounds, belonging in high-SES environments may not relate to familiarity (i.e., being in these environments in the past) so much as with aspirational belonging (i.e., the desire to be in these environments in the future). We test this idea in Study 2.

In Study 2, we again ask about belonging within the environment and about participants' perceptions of whether the environment would support them in achieving their goals, but we also turn our attention to how high and low-SES participants feel these environments fit into the futures they want for themselves. This temporal distinction is important because we theorized that one of the reasons that students from low-SES backgrounds may choose to enter high-SES

environments is because these environments are aspirational and part of what they want for their futures. This may also explain why we found in Study 1 that students from low-SES backgrounds felt like they belonged in high-SES and low-SES environments to a similar extent – they may be motivated to try to belong in high-SES environments because it represents upward social mobility and a positive future for themselves. This should lead them to consider high-SES environments a part of their future aspirations and to be attracted to these environments to a greater extent than low-SES environments.

Similarly, we have also theorized that the reason participants from high-SES backgrounds feel like they do not belong in low-SES environments is not just because these environments are new or unfamiliar to them, but because being in these environments would represent downward social mobility and a future they do not want. Therefore, they should be actively motivated to avoid these environments, both in the present and in the future. If this is the case, we would expect them to report that low-SES environments do not satisfy their belonging or status needs in the present or future and that they are not attracted to these environments.

We test these hypotheses by measuring the extent to which participants want to belong to high versus low-SES environments in the future, as well as how much these environments fit into their future visions of success. We also measure their feelings of liking / attraction towards these environments. For both high and low-SES participants, we hypothesize that they will rate high-SES environments higher than low-SES environments on perceptions of future belonging, future success, and attraction / liking.

In Study 2, we also measure the degree to which participants pay attention to the elements of high and low-SES environments, as measured by their recall of details in the environments. We think that attention is motivated by the degree to which participants feel like

those environments are relevant to them. We have hypothesized that participants from high-SES backgrounds do not feel that low-SES environments will satisfy their belonging or status needs now or in the future. In addition, we have posited that participants from high-SES backgrounds may actually feel a sense of threat due to thoughts about downward social mobility when exposed to low-SES environments, and may therefore be motivated to avoid those environments. Therefore, we hypothesize that participants from high-SES backgrounds will pay less attention to low-SES environments than high-SES environments. However, since participants from low-SES backgrounds currently feel similar levels of belonging in both high and low-SES environments, we hypothesize that they will be similarly motivated to pay attention to both high and low-SES environments. Last of all, because of past research suggesting that participants from low-SES backgrounds pay more attention to contextual cues in general (Kraus et al., 2009), we expect a main effect of SES on attention to environmental cues, such that low-SES participants will be more accurate in answering questions across all socioeconomic environments than high-SES participants.

Study 2

Goals

In Study 2, we had two major goals. The first goal involved replicating and extending our results from Study 1 with regards to status and belonging. We frame our questions about status slightly differently than in Study 1 – while Study 1 asked about participants' perceptions of the status of the environment (whether the environment itself was conducive to goal attainment), in Study 2 we ask directly about whether participants think the environment would help them meet their goals. We make this change because we felt that while it was important in Study 1 to establish that high-SES environments are associated with success and opportunities *in general*

(hence why people want to be in those environments), in Study 2 it's important to know whether both high and low-SES students feel these environments support them in their goal attainment *in particular.* We also ask about the extent to which participants felt that high versus low-SES environments fit into their future aspirations in terms of belonging and status, as well as their attraction towards high versus low-SES environments.

Our second goal for Study 2 was to examine the extent to which participants pay attention to high versus low-SES environments, as measured by their recall of details in each environment. Attention is a useful way to test the motivational asymmetry framework – if participants from high-SES backgrounds are not motivated to be in low-SES environments, those environments should hold less relevance to them and they should therefore pay less attention to those environments. Meanwhile, if participants from low-SES backgrounds are motivated to be in both high and low-SES environments (albeit for different reasons), then they should pay similar amounts of attention to cues in both types of environments.

Method

Participants. Similar to Study 1, participants were UCLA students who qualified for this study by completing a prequalification survey in which they either indicated that their annual family income was above $100,000 (placing them in the high-SES category) or less than $50,000 (placing them in the low-SES category). In Study 2, 248 students completed the study but 28 students were excluded from data analysis for indicating an income category which was different from their response in the prequalification survey. A total of 13 students also accidentally completed the survey twice and we excluded their second response from analysis. That left a remaining sample of 207 students, 105 of whom had family incomes above $100,000 and were categorized as high-SES, and 102 of whom had family incomes below $50,000 and were

categorized as low-SES. Of the 207 students, 51 were men, 153 were women and 3 students did not identify with either gender category. Ages ranged from 18 to 57, with mean age of 20.66 (*SD*=3.08). With regards to ethnicity, 42% of students identified as Asian or Asian American, 39.6% of students identified as White and 25.1% of students identified as Latino or Latina. Students could identify with more than one ethnic / racial category. Most students (93.2%) were born in the United States.

Experimental design and procedures. Study 2 was an online study which featured a two-level multilevel design. The level one variable was environments which were arranged in a 2 (Environment SES: high / low) by 2 (Environment type: house / office) design, for a total of 4 environments which participants viewed. The high and low-SES houses and offices in Study 2 were the same as the images used in Study 1. We chose to restrict the images in Study 2 to a subset of the environment types found in Study 1 (i.e., houses and offices only) because in Study 2 we asked participants how the environments fit into what they wanted for themselves in the future. Parks, supermarkets and libraries (the three types of environments from Study 1 that were not included in Study 2) are public spaces that people can enter regardless of socioeconomic status. Therefore, we did not feel that ratings of those images would necessarily change based on students' future aspirations. On the other hand, houses and offices are private spaces and therefore environments that may better serve as representations of the life participants want for themselves in the future – i.e., where they picture themselves living and working. Therefore, in Study 2 we restricted the environments that participants viewed to the high-SES and low-SES offices and houses from Study 1.

Participants were told that the study was about perceptions of physical spaces and separated into three parts. They were told that Part 1 was a recall task and asked to view images

of physical spaces and answer questions about the physical features of those spaces. In Part 1, participants saw an image of one of the environments for 10 seconds before the survey automatically moved to the next screen. They were then tested on their recall of details of the environment via a series of multiple choice questions. This was done for all four environments (in random order) before participants moved on to Part 2. Participants were told that Part 2 was about their impressions of the spaces they had viewed in Part 1. In Part 2, participants were shown each image again (in random order) and asked to imagine themselves in the environment. They were asked for their perceptions of the environment and how they thought they would feel if they found themselves in each environment, both in the present and in the future. Last of all, in Part 3 participants answered a series of demographic questions and exited the study.

Dependent variables. In Study 2, we were interested in examining participants' recall of the details of each environment, as well as their present and future perceptions of belonging and status in the environments. Last of all, we measured participants' professed preference for each environment.

Present Belonging in the Environment. Present feelings of belonging in the environment were measured by the same two questions as in Study 1: "This is the type of place where my family and I would fit right in," and "This is the type of place where I feel like I belong." The questions were measured on a scale of 1 (Not at all) to 5 (Very much so). The two questions had an average correlation of r=.89 across all four environments and all correlations were significant at the p=.01 level.

Present Perceptions of Status in the Environment. How and whether participants felt that the environment assisted them in obtaining status at the present time was measured by two questions, "Being in this place makes me feel like I can be successful" and "Being in this place

makes me feel like I have opportunities." The present status questions were measured on a scale of 1 (Not at all) to 5 (Very much so). The two questions had an average correlation of across all four environments of r=.86 and all correlations were significant at the p=.01 level.

Aspirational (Future) Belonging in the Environment. Participants' desires for belonging in the environment in the future were measured by two questions: "In the future, this is the kind of place I would like to fit in" and "In the future, this is the kind of place I would like to feel like I belong." The future belonging questions were measured on a scale of 1 (Not at all) to 5 (Very much so). The two questions had an average correlation of r=.90 across all four environments and all correlations were significant at the p=.01 level.

Aspirational (Future) Status in the Environment. Participants' perceptions of their future status as a function of the environment was measured by two questions: "In the future, being in this place would mean that I have achieved success" and "In the future, being in this place would mean that I have achieved a lot in life." The future status questions were measured on a scale of 1 (Not at all) to 5 (Very much so). The two questions had an average correlation of r=.88 across all four environments and all correlations were significant at the p=.01 level.

Preference for the Environment. We operationalized participants' preference for the environment as their professed liking of the environment and their level of enjoyment in viewing an image of the environment. Preference for the environment was measured via two questions: "How much do you like what you see in this image?" and "How much do you enjoy looking at the environment depicted in this image?". Preference questions were measured on a 1 to 7 scale, with 1 being "Not at all" and 7 being "Very much." The two questions had an average correlation of r=.80 across all four environments and all correlations were significant at the p=.01 level.

Attentional Recall. To test participants' attentional recall of each environment, we asked a series of seven multiple choice questions about each environment after participants had viewed that environment for 10 seconds. We used the same set of questions for the two houses (See Appendix B for list of questions), and the same set of questions for the two office environments (Appendix C). The multiple choice questions featured a correct answer choice, an incorrect answer choice and an option of "not sure." For both the house and office environments, six out of the seven questions were yes/no questions, along with an option of "not sure." An example question is, "Does the house in the image have a porch?" with answer choices of yes, no and not sure.

Results

Similar to Study 1, the data in Study 2 were analyzed using the MIXED command in SPSS to test linear mixed effects models for each of the outcome variables. The level one variables were Image SES (Low vs. High), and Picture Type (Houses vs. Offices). All level one variables were within subjects. The level two variable was participants' SES (Low vs. High) and was between subjects.

Present Belonging in the Environment. We found a main effect of Image SES, such that overall, participants felt more belonging in high-SES environments, M=3.29, than low-SES environments, M=1.81, $F(1,617)=495.53$, $p<.001$. We also found a main effect of participant SES, such that high-SES participants felt more belonging in all environments overall, M=2.63, than low-SES participants, M=2.47, $F(1,205)=3.96$, $p=.05$. However, these two main effects were qualified by a significant interaction between Image SES and participant SES, $F(1,617)=19.83$, $p<.001$ (Figure 6). Both high and low-SES participants felt more belonging in

high-SES environments as compared to low-SES environments, F(1617)=362.07, p<.001 for high-SES participants and F(1,617)=156.28, p<.001 for low-SES participants.

However, differences emerge when we examine results by Image SES. High and low-SES participants did not differ in how much they felt they belonged in the low-SES environment, $F(1,530.30)=2.00$, $p=.16$. However, high-SES participants felt more belonging in the high-SES environments, $M=3.52$, than low-SES participants, $M=3.07$, $F(1,530.30)=19.56$, $p<.001$.

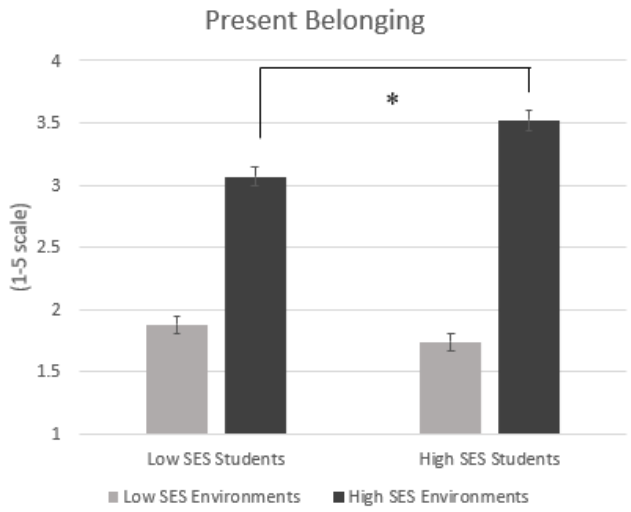

Figure 6. High and low SES students' perceptions of present belonging in different SES environments (Study 2).

Present Perceptions of Status in the Environment. Tests of fixed effects revealed a main effect of Image SES, such that all participants felt like they would have more status in the high-SES environment, $M=4.15$, than the low-SES environment, $M=1.64$, $F(1,617)=2014.73$, $p<.001$. There was no main effect of participants' SES, $F(1,205)=2.87$, $p=.09$ on perceptions of their overall status in the environments. There was also no significant interaction between participants' SES and Image SES, $F(1,617)=3.13$, $p=.08$ (Figure 7).

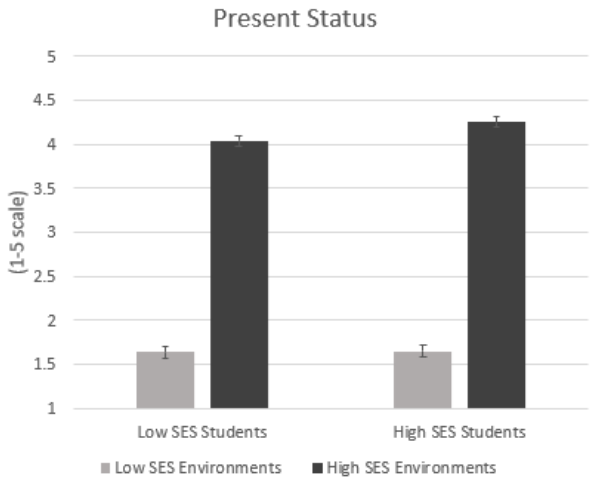

Figure 7. High and low SES students' perceptions of present status in different SES environments (Study 2).

Aspirational (Future) Belonging in the Environment. Tests of fixed effects revealed a main effect of Image SES, such that all participants felt like they would like to belong more in the high-SES environment in the future, M=4.00, than the low-SES environment, M=1.57, $F(1,617)=1584.04$, $p<.001$. There was no main effect of participants' SES, $F(1,205)=.39$, $p=.53$, on perceptions of future belonging in the environments. There was also no significant interaction between participants' SES and Image SES, $F(1,617)=2.93$, $p=.09$ (Figure 8).

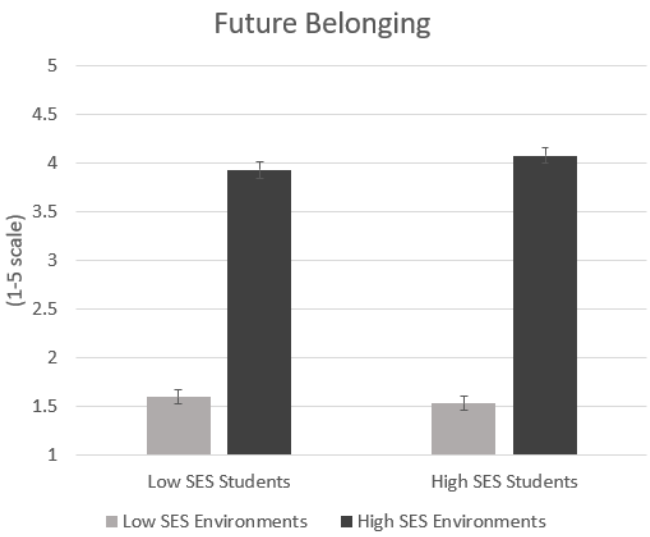

Figure 8. High and low SES students' anticipated future belonging in different SES environments (Study 2).

Aspirational (Future) Status in the Environment. We found a main effect of Image SES, such that all participants felt like being in the high-SES environment in the future would mean that they had obtained more status, M=3.99, than being in the low-SES environment, M=1.60, $F(1,617)=1792.18$, $p<.001$. There was no main effect of participants' SES, $F(1,205)=.05$ $p=.82$, on perceptions of future status in the environments. There was also no significant interaction between participants' SES and Image SES, $F(1,617)=.30$, $p=.58$ (Figure 9).

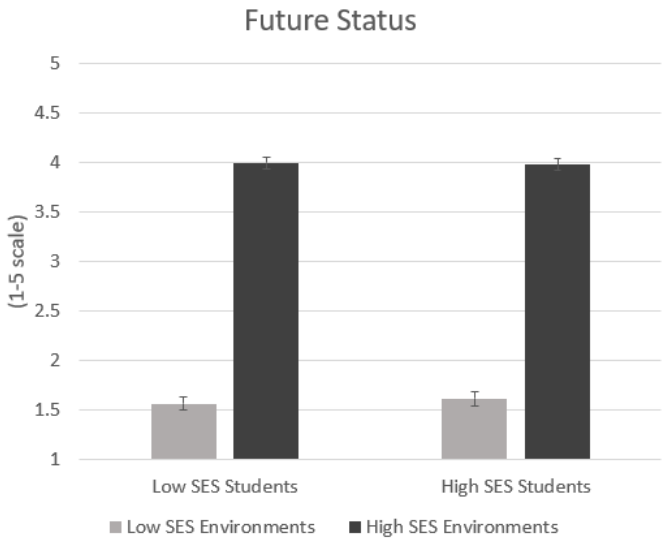

Figure 9. High and low SES students' perceptions of future status in different SES environments (Study 2).

Preference for the Environment. We found a main effect of Image SES, such that all participants liked the high-SES environment, M=5.76, more than the low-SES environment, M=2.05, $F(1,617)=2396.32$, $p<.001$. There was no main effect of participants' SES, $F(1,205)=.12$ $p=.73$, on how much they liked the environments overall. There was also no significant interaction between participants' SES and Image SES on liking, $F(1,617)=3.62$, $p=.06$.

Attentional Recall. Tests of fixed effects revealed a main effect of Image SES, such that participants were better at recalling details about low-SES environments, M=5.08, than high-SES environments, M=4.75, $F(1,617)=16.16$, $p<.001$. There was no main effect of participants' SES, $F(1,205)=.25$, $p=.62$ on their recall of details of the images. There was also no significant interaction between participants' SES and Image SES, $F(1,618)=.20$, $p=.66$ (Figure 10).

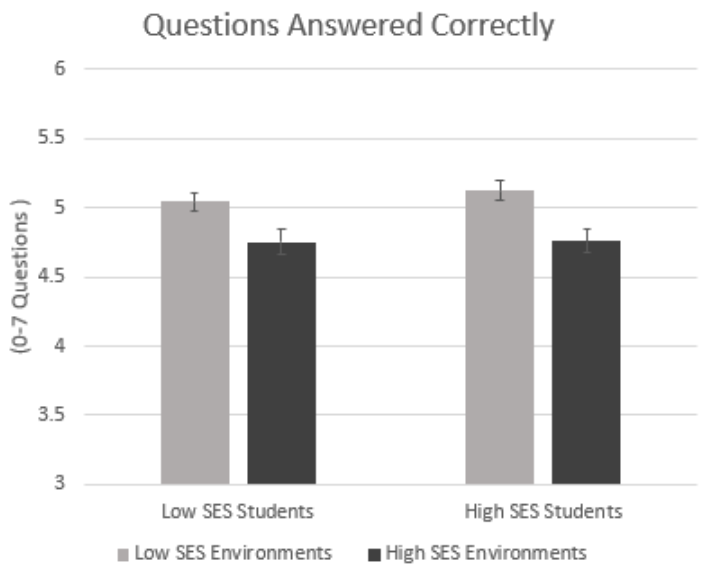

Figure 10. Effect of different SES environments on high and low SES students' attentional recall (Study 2).

Discussion

In Study 2, we partially replicated the result from Study 1 regarding perceptions of belonging, in that high-SES participants felt more belonging in high-SES environments than low-SES participants. However, we did not replicate results from Study 1 showing that low-SES participants felt similar levels of belonging across environments. Instead, we found that low-SES participants felt more belonging in high-SES environments as compared low-SES environments, similar to high-SES participants. We think that this may have occurred because in Study 2, participants were asked to pay close attention and answer questions on the details of each environment before they answered questions about belonging. This may have caused low-SES students to focus on the dilapidated state of low-SES environments more so than they did in Study 1. In turn, this focus may have decreased their professed feelings of belonging in low-SES

environments since it can be embarrassing to admit that one belongs in an unattractive environment.

We also replicated results from Study 1 showing that all participants felt high-SES environments supported their goal attainment more than low-SES environments. Furthermore, we found that all participants showed a preference for high-SES environments when rating their perceptions of future belonging and future status in those environments, and also in their feelings of attraction towards the environment. However, contrary to our hypothesis we did not find any differences between high and low-SES participants in terms of how much attention they paid to high versus low-SES environments, or to environments in general. We think that this may be because the attention task was framed as an individual achievement task concerning images on a screen (i.e., see how many questions you can answer correctly about these environments) and may not reflect participants' responses if they were actually in real-life environments.

In Study 3, we make the switch from experimental manipulations to survey research in order to ask high and low-SES participants about their actual experiences with higher versus lower socioeconomic environments. We also measure whether high and low-SES participants differ in terms of self-professed adaptivity and the development of a bicultural social class identity.

Study 3

Goals

Study 3 had two main goals. The first goal was to access participants' real-life experiences with different socioeconomic environments, with a view towards explaining the differential patterns of results that were found between students from high and low-SES backgrounds in Studies 1 and 2. For example, in Study 1 we found that participants from low-

SES backgrounds experience similar levels of belonging between high and low-SES environments, while participants from high-SES backgrounds do not. Is this because participants from low-SES backgrounds move between different socioeconomic environments more so than participants from high-SES backgrounds? We test this hypothesis in Study 3.

Similarly, the motivational asymmetry framework posits that students from low-SES backgrounds are motivated to move from low-SES environments into high-SES environments, but we cannot confirm this without knowing how students rate their past socioeconomic environments (i.e., their high schools and the neighborhoods where they grew up), their current environment (UCLA), and their ideal future environment. Last of all, a core prediction of the motivational asymmetry framework is that low-SES students spend more time in high-SES environments than high-SES students spend in low-SES environments, we test this in Study 3 by measuring the amount of time our participants spend in high versus low-SES environments. In short, we focus on participants' real-life experiences with different socioeconomic environments in Study 3 because we think these experiences influence their feelings of belonging and status and their ratings of the environments from Studies 1 and 2.

Our second goal in Study 3 was to see if low-SES participants' response that they felt equal levels of belonging in high and low-SES environments in Study 1 extended to related concepts, such as the development of a bicultural social class identity (i.e., feeling like they identify with more than one social class), feeling adaptable in different socioeconomic environments, and feeling like they were adaptable (in general) to a greater extent than participants from high-SES backgrounds. Therefore, we ask participants about how adaptable they think they are in general (using a previously validated scale which measures individual differences in adaptivity, Ployhart & Bliese, 2006), how adaptable they feel they are in different

socioeconomic environments, and the extent to which they feel they have developed a bicultural social class identity. Last of all, we asked participants about their beliefs in societal social mobility, since we theorized that low-SES participants' aspirations of upward social mobility may influence the degree to which they try to adapt to high-SES environments, while high-SES participants' desire to avoid downward social mobility may influence the degree to which they avoid trying to adapt to low-SES environments.

Method

Participants. Similar to Studies 1 and 2, participants in Study 3 completed a pre-qualification survey, and those who were categorized as either high-SES or low-SES based on their family incomes were recruited for this study. Two hundred and sixty nine students completed Study 3. The responses of three students were eliminated from analysis because they failed to report their family income, and an additional 34 students reported family incomes that put them in the middle class category and they were also removed from analysis. This left a total of 232 students, 125 of whom were classified as high-SES and 107 of whom were classified as low-SES. The ages of students ranged from 18 to 57, with a mean age of 20.27 years (*SD*=3.03). There were 65 men, 164 women and 3 students who identified as non-binary. The three largest racial / ethnic categories represented in the sample were Asian / Asian Americans (44.4%), Whites (33.2%) and Latino / Latino Americans (24.1%). The vast majority (94%) of students were born in the United States.

Survey Design and Procedures. Study 3 was an online survey which asked participants views about various aspects of their lives. Participants were told that the survey would ask them about their preferences, styles and habits. Participants answered questions about how they saw themselves, as well as about their experiences in different socioeconomic environments. They

also answered questions about how easy they felt it was for people to achieve social mobility in the United States. Last of all, they answered some demographic questions to complete the study.

Outcome Variables.

Participants' Experiences with Different Socioeconomic Environments. We separated participants' experiences with different socioeconomic environments into three different sections. The first section focused on participants' experiences moving between different socioeconomic environments. We measured the extent to which participants moved between different socioeconomic environments using a five-item scale created for this study, alpha=.61 (Appendix D). An example question is, "In my daily life, I often move between different socioeconomic environments." Questions were rated on a scale of 1 (Not at all) to 7 (Very much).

The second section focused on participants' ratings of social class environments which were important parts of their lives. Participants were asked to rate the socioeconomic environment of five different environments: The neighborhood where they grew up, their high school, UCLA (their current university), their ideal future environment and the environment where they felt most comfortable. Ratings were completed on a sliding scale from 0 (Very Low SES) to 100 (Very High SES).

The third section focused on the amount of time that participants spent in different social class environments. We asked participants the amount of time they spent in high, middle and lower socioeconomic neighborhoods, on a scale of 1 (None of my time) to 10 (All of my time) for each neighborhood. Time spent in each of the three types of socioeconomic neighborhoods were asked as separate questions.

Adaptation. We measured adaptation in two ways – both as a general trait, and also specifically as adaptation to different environments.

General trait adaptation. We measured adaptation as a general trait by using questions from a scale created by Ployhart and Bliese (2006) called I-Adapt, which measured individual differences in adaptability. The original scale consisted of 55 items – we shortened it to 24 items total, with three items for each of the eight sub-dimensions of adaptability identified by the researchers (See Appendix E for a list of the items used). The eight dimensions were crisis, cultural, work stress, interpersonal, learning, physical, creativity and uncertainty. An example question is, "When something unexpected happens, I readily change gears in response." The questions were measured on a 1 to 5 scale, from Strongly Disagree to Strongly Agree. All of the items were positively valanced, with higher scores indicating greater adaptivity, except for the three questions for work stress, for which higher scores indicated higher stress under heavy workloads and thus less adaptivity. Those three items were subsequently reverse-coded and combined with the other 21 items to form an overall measure of adaptivity, alpha=.86.

Adaptation to different environments. In addition to individual differences in adaptivity as a general trait, participants may also differ in the degree to which they feel they can adapt to different socioeconomic environments. In this four-item scale (Appendix F), we were interested in measuring the extent to which participants felt they could adapt and adjust to different socioeconomic environments. An example question from this scale is, "I can easily adapt to different social class environments." The questions were measured on a 1 to 5 scale, from Strongly Disagree to Strongly Agree, and alpha=.72.

Social Class BiCultural Identity. We created a four-item scale (adapted from Herrmann & Varnum, 2018) to measure the extent to which students felt like they identified with more than

one social class. An example item is, “Both higher and lower social class identities are an important part of how I see myself.” The questions were measured on a 1 to 5 scale, from Strongly Disagree to Strongly Agree, and fit well together, alpha=.74 (See Appendix G for full list of questions).

Perceptions of Societal Social Mobility. We adapted five questions from Day and Fiske (2016) in order to measure participants’ beliefs about societal social mobility in the United States, alpha=.68 (Appendix H). The questions focused on how easy or difficult participants felt it was to be socially mobile (ie, to change social classes) in the United States. An example question is, “It is not too difficult for people to change their position in society.” The answer choices ranged from 1 (Strongly Disagree) to 7 (Strongly Agree).

Results

We used t-tests to examine differences between students from high and low-SES backgrounds on the outcome variables in this study.

Participants’ Experiences with Different Socioeconomic Environments

Movement Between Different Socioeconomic Environments. We began by examining the extent to which participants felt like they moved between different socioeconomic environments. Participants from low-SES backgrounds were more likely to say that they often move between different socioeconomic environments, M=4.47, SD=.92, than participants from high-SES backgrounds, M=3.82, SD=1.04, $t(230)=5.00$, $p<.001$ (Figure 11).

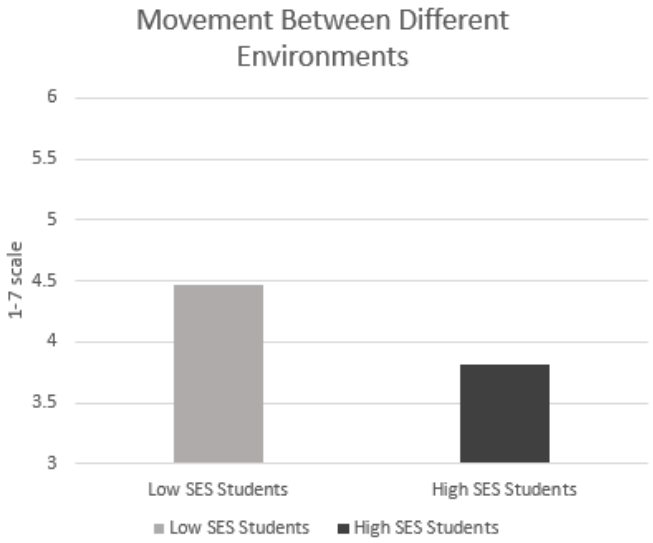

Figure 11. Movement between different environments among high and low SES students (Study 3).

Participants' Ratings of Personally-Relevant Socioeconomic Environments. Next, we examined participants' ratings of important socioeconomic environments in their past, present and future (Figure 12).

We found that participants from low-SES backgrounds were in lower socioeconomic environments in their past than participants from high-SES backgrounds, both in terms of the neighborhood where they grew up and their high school. Participants from low-SES backgrounds grew up in lower-SES neighborhoods (M=37.35, SD=20.82) than participants from high-SES backgrounds, (M=73.11, SD=17.69), $t(221)$=-13.86, p<.001. Participants from low-SES backgrounds also rated the socioeconomic environment of their high schools as lower-SES (M=42.21, SD=25.64) than participants from high-SES backgrounds, (M=64.81, SD=22.44), $t(224)$=-7.06, p<.001.

In the present, participants from low-SES backgrounds considered UCLA to be a higher socioeconomic environment (M=83.64, SD=14.58) than participants from high-SES

backgrounds, (M=75.92, SD=15.38), t(230)=3.91, p<.001. By comparing participants' ratings of their present environment (UCLA) with ratings of their high school, we can see that attending university was a larger socioeconomic transition for low-SES students (M=42.21 compared to M=83.64) than for high-SES students (M=64.81 compared to M=75.92).

For the future, we measured participants' ideal future environment and the environment where they felt they would feel most comfortable. Participants from low-SES backgrounds' ideal future environment is lower, socioeconomically, (M=70.12, SD=17.44) than participants from high-SES backgrounds' ideal future environment, (M=77.48, SD=14.12), t(203.60)=-3.49, p<.001. However, it should be noted that both participants from low and high-SES backgrounds' ideal future environment is a high-SES environment (ie, scores were between 70 and 80 out of 100). Furthermore, participants from low-SES backgrounds would feel most comfortable in an environment (M=52.50, SD=19.92) that is lower, socioeconomically, than the one that participants from high-SES backgrounds would prefer (M=70.58, SD=13.70), t(183.48)=-7.92, p<.001. For both participants from high and low-SES backgrounds, the environment where they feel most comfortable is lower socioeconomically than their ideal future environment.

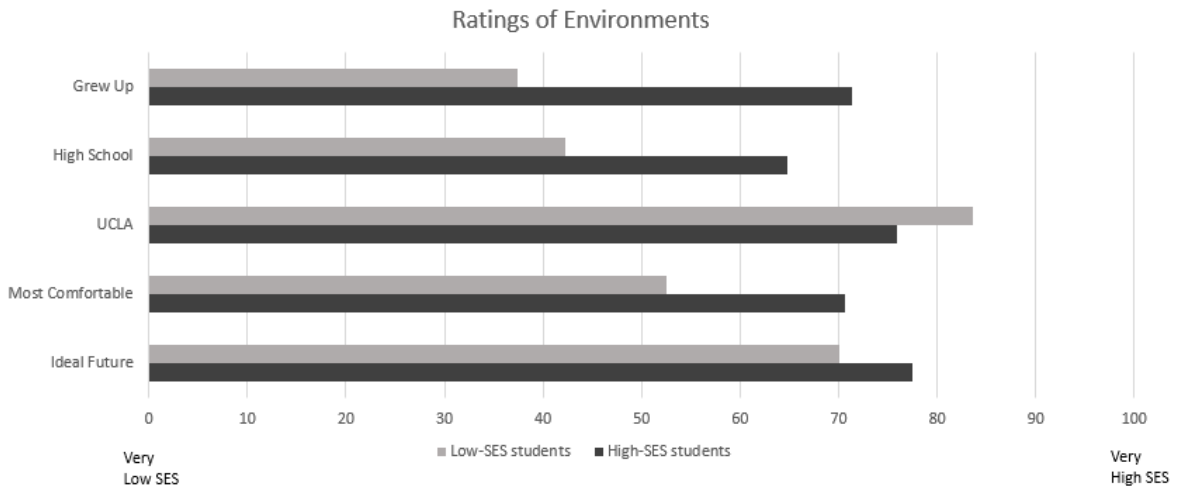

Figure 12. High and low SES students' ratings of personally relevant socioeconomic environments (Study 3).

Time Spent in Different Socioeconomic Environments. Examining time spent in different socioeconomic environments as a function of participant SES, we can see that participants from high-SES versus low-SES backgrounds differ in the amount of time they spend in higher, middle and lower socioeconomic environments (Figure 13).

Participants from high-SES backgrounds spend significantly more time in high-income neighborhoods, (M=6.25, SD=1.88) than participants from low-SES backgrounds do, (M=4.09, SD=2.03), $t(230)$=-8.39, p<.001. Participants from high-SES backgrounds also spend significantly more time in middle-class neighborhoods, (M=6.78, SD=1.76) than participants from low-SES backgrounds, (M=5.75, SD=1.92), $t(230)$=-4.25, p<.001. However, participants from high-SES backgrounds spend *less* time in low-income neighborhoods, (M=3.08, SD=1.43) than participants from low-SES backgrounds, (M=5.90, SD=2.36), $t(170)$=10.79, p<.001.

We can also examine results by participant SES. Participants from high-SES backgrounds spend more time in high-SES and middle class environments (M=6.25 and M=6.78, respectively)

than low-SES environments (*M*=3.08). Meanwhile, participants from low-SES backgrounds spend more time in low-SES and middle class environments (*M*=5.90 and *M*=5.75, respectively) than they do in high-SES environments (*M*=4.09). This suggests that both individuals from high-SES and low-SES backgrounds spend the least amount of time in environments that differ the most from their social class backgrounds. However, we do see an asymmetry in the amount of time that high-SES individuals spend in low-SES environments versus the amount of time that low-SES individuals spend in high-SES environments. Low-SES individuals spend more time (*M*=4.09) in high-SES environments than high-SES individuals spend in low-SES environments (*M*=3.08).

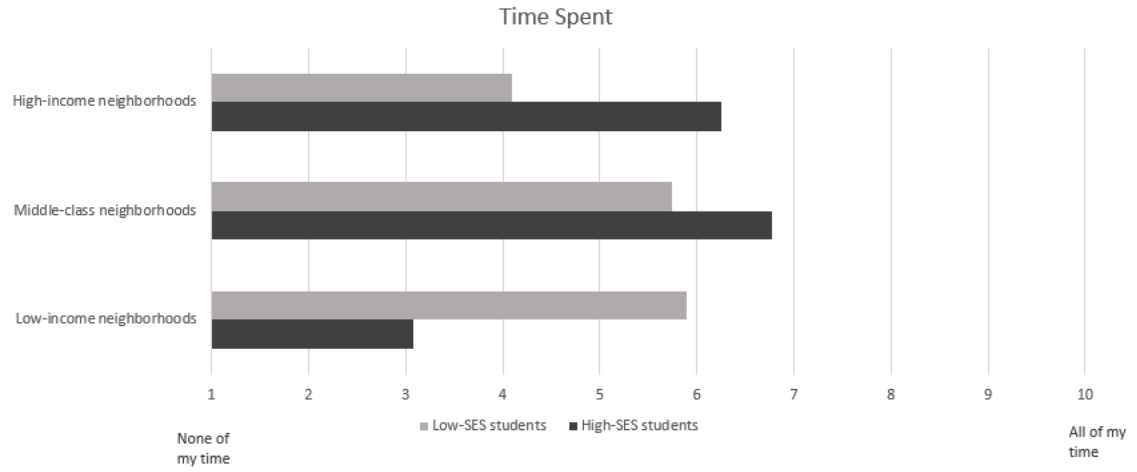

Figure 13. High and low SES students' time spent in different socioeconomic environments (Study 3).

Adaptation. Participants from high-SES backgrounds had higher self-reported adaptivity as a general trait, (*M*=3.69, *SD*=.47) than participants from low-SES backgrounds (*M*=3.57, *SD*=.40), *t*(230)=-2.28, *p*=.02 (Figure 14). Participants from high-SES backgrounds also reported that they were better able to adapt to different environments, (*M*=3.32, *SD*=.72) than participants from low-SES backgrounds (*M*=2.87, *SD*=.67), *t*(230)=-4.82, *p*<.001 (Figure 15).

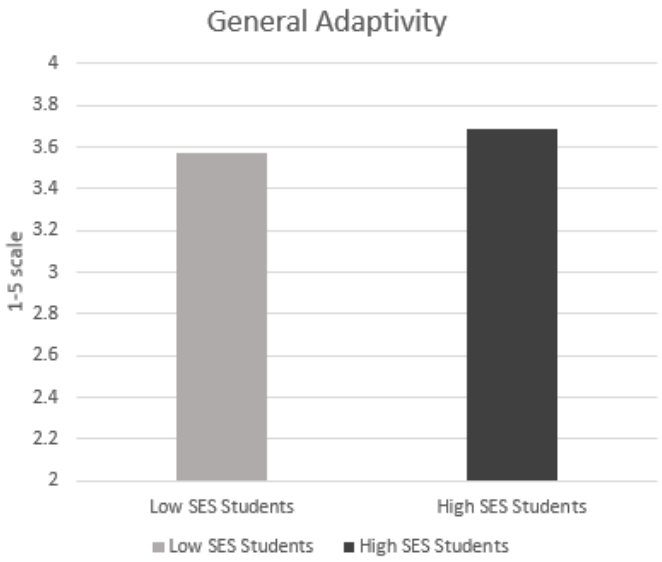

Figure 14. High and low SES students' ratings of adaptivity as a general trait (Study 3).

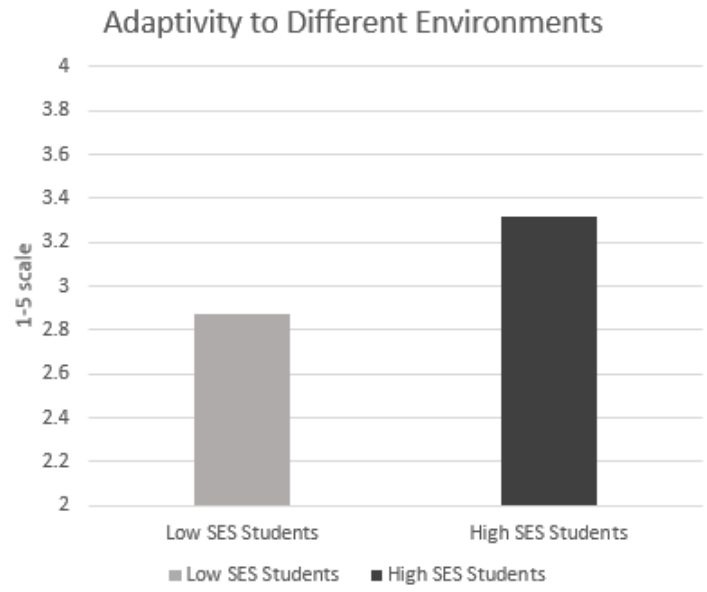

Figure 15. High and low SES students' adaptivity to different environments (Study 3).

Social Class BiCultural Identity. There was no significant difference between high and low-SES students in how much they identified with more than one social class, (*M*=3.07, *SD*=.85 versus *M*=3.00, *SD*=.87), *t*(230)=-.615, *p*=.54 (Figure 16).

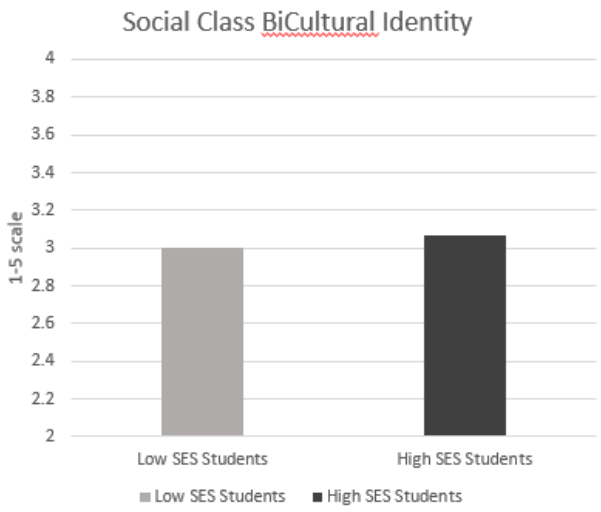

Figure 16. Social class bicultural identity among high and low SES students (Study 3).

Perceptions of Social Mobility. There were no differences in perceptions of social mobility between participants from high-SES backgrounds (M=3.29, SD=0.96) and participants from low-SES backgrounds, (M=3.10, SD=0.92), t(230)=-1.58, p=.12.

Discussion

In Study 3, we confirmed several core tenets of the motivational asymmetry framework. Importantly, we found that participants from low-SES backgrounds move between different socioeconomic environments more so than participants from high-SES backgrounds. They also grew up and attended high school in more low-income neighborhoods, as well as spend more time in low-income neighborhoods in the present as compared to participants from high-SES backgrounds. However, they agree with students from high-SES backgrounds that their ideal future environment is a high-SES environment. This suggests that participants from low-SES backgrounds are motivated to move from low-SES to high-SES environments over time. Last of all, we found that low-SES students spend more time in high-SES environments than high-SES

students spend in low-SES environments, another core tenet of the motivational asymmetry framework.

However, we did not find that students from high and low-SES backgrounds differed in self-rated general measures of adaptivity, social class biculturalism, or in ratings of societal social mobility. In addition, we found that, contrary to our hypotheses, individuals from high-SES backgrounds reported greater adaptivity to new socioeconomic environments than individuals from low-SES backgrounds. We delve into why our hypotheses around adaptivity and social class biculturalism were not supported in the general discussion.

General Discussion

The present research provides an important test of the motivational asymmetry framework, which posits that individuals from higher versus lower social class backgrounds are differentially motivated to enter new socioeconomic environments. Specifically, we suggest that while individuals from lower social class backgrounds are motivated to enter higher socioeconomic environments because these environments contain resources and opportunities for goal attainment, individuals from higher social class backgrounds are not motivated to enter lower socioeconomic environments because those environments provide them with neither opportunities nor interpersonal connections.

The motivational asymmetry framework suggests a specific set of consequences for individuals' psychological experiences in socioeconomic environments which are either congruent or incongruent with their social class background. We used the motivational asymmetry framework to successfully predict individuals' feelings of status and belonging in higher versus lower socioeconomic environments, both in the present and in the future. The motivational asymmetry framework was also supported by participants' reports of their real-life

experiences in different socioeconomic environments – participants from lower social class backgrounds reported moving between different socioeconomic environments and spending more time in environments which were incongruent with their social class backgrounds than participants from higher social class backgrounds. However, it fell short in predicting participants' attentional responses to different socioeconomic environments, as well as how they saw themselves in terms of a bicultural social class identity and adaptivity.

Implications for Status, Belonging and Movement Between Different Environments

We tested our predictions for status and belonging in Studies 1 and 2. For status, we predicted that individuals from higher and lower social class backgrounds would agree that higher socioeconomic environments are more conducive to status attainment than lower socioeconomic environments (Prediction 1A). This was confirmed in Study 1 and successfully replicated in Study 2, when we found that participants did not differ in their ratings / perceptions of the status of an environment. Both participants from higher and lower social class backgrounds agreed that higher socioeconomic environments assist the people within them with obtaining status more so than lower socioeconomic environments and that they are associated with success and opportunities. All participants also associated higher socioeconomic environments with success and opportunities in the future more so than lower socioeconomic environments (confirming Prediction 1B).

For belonging, we predicted that individuals from higher social class backgrounds would feel greater belonging in higher socioeconomic environments than lower socioeconomic environments. However, because individuals from lower social class backgrounds are moving from lower socioeconomic environments into higher socioeconomic environments, we predicted that they would feel equal amounts of belonging in both environments (Prediction 2A). This was

supported in Study 1 and partially replicated in Study 2. We also extended the variable of interpersonal belonging temporally by asking about the future, and found that all participants hoped to belong to higher socioeconomic environments in the future more than lower socioeconomic environments (confirming Prediction 2B).

In Study 3, we found that participants' real-life experiences with higher versus lower socioeconomic environments differed, which may have contributed to the differential patterns for belonging found in Study 1 for individuals from higher versus lower social class backgrounds. Specifically, participants from low-SES backgrounds reported moving between different socioeconomic environments more so than participants from high-SES backgrounds, which may explain whey they reported similar levels of belonging in both environments in Study 1.

Implications for Attention, Social Class BiCultural Identity and Adaptation

In Studies 2 and 3, our predicted differences between individuals from higher versus lower social class backgrounds with regards to the variables of attention, social class bicultural identity and adaptation did not occur.

In Study 2 we predicted that individuals from higher social class backgrounds would pay more attention to higher socioeconomic environments as compared to lower socioeconomic environments, while individuals from lower social class backgrounds will pay similar amounts of attention to both types of environments (Prediction 3). We also predicted that individuals from lower social class backgrounds would pay more attention to environments overall than individuals from higher social class backgrounds (Prediction 4). However, neither of these predictions was supported. We did not find that participants from higher versus lower social class backgrounds paid different amounts of attention to higher versus lower socioeconomic

environments. We also did not find that participants from higher versus lower social class background differed in the amount of attention that they paid to the environments.

Instead, we found that overall, all participants answered more questions correctly about the lower socioeconomic environment than the higher socioeconomic environment. There are two potential explanations for this. One is that the lower socioeconomic environments could have felt more threatening and less safe to all participants, and the inducement of threat could have caused participants to pay closer attention to those environments. Another explanation is that viewing images of lower socioeconomic physical environments is more novel for all participants, since most advertising and media images feature physical environments that are affluent. Therefore, the novelty of seeing images of these environments could have caused participants to pay more attention to these environments.

Last of all, in Study 3 we predicted that individuals from lower social class backgrounds would be more likely to say that they have a bicultural social class identity (Prediction 5) and be more adaptable (Prediction 6) than individuals from higher social class backgrounds. However, we did not find differences between participants from higher versus lower social class backgrounds in terms of bicultural social class identities or general adaptivity. It is important to remember, however, that these are self-reported measures. Previous research has suggested that people who are high in status, such as people from higher social class backgrounds, are more confident and may overestimate their abilities to a greater extent than people who are low in status (Pfeffer, Cialdini, Hanna, & Knopoff, 1998; Stolte, 1978). Therefore, future research should explore behavioral measures of these variables in order to ascertain whether differences actually do exist between students from higher and lower social class backgrounds.

Theoretical Contribution

The main theoretical contribution of this work is in its development of a framework for predicting how social class identities shape reactions to socioeconomically congruent and incongruent environments. This framework brings together both a person's social class background and also the socioeconomic status of the environment and tests how they interact in predicting important psychological outcomes, such as interpersonal belonging. In doing so, it offers a more complete view of how people interact with their environments in the context of social class.

This work also contributes to our understanding of how and why individuals choose to be in different physical environments by mapping their motivations onto key psychological needs which could potentially be satisfied in these environments. Specifically, we focus on the role of identity versus resource needs in predicting individuals' interactions with their environments. Identity needs include the need to feel good about oneself and one's social identities (Brewer, 1997). Feelings of interpersonal belonging are an essential part of satisfying identity needs, since it suggests that others see and accept us for who we are. On the other hand, people also have the need to obtain resources from their physical environments since resources are essential for survival. We feel that individuals' resource needs map well onto status motivations, since obtaining resources is an important component of gaining status, and having high status also offers increased access to resources which are present in the environment (Anderson et al., 2015). Therefore, this work offers important insights on how individuals from different social class backgrounds attempt to satisfy their identity and resource needs in varying socioeconomic environments.

One line of previous research has primarily focused on comparing the experiences of people from different social class backgrounds *within* a given environment – for example the experiences of students from higher versus lower social class backgrounds in college (e.g., Ostrove & Long, 2007; Stephens, Townsend, et al., 2012). Another line of research has examined the experiences of one socioeconomic group (low-SES students) as they traveled between different socioeconomic environments – for example as they moved from low-income home communities to high-income college neighborhoods (Carter, 2003; Jack, 2016; Vasquez-Salgado, Greenfield, & Burgos-Cienfuegos, 2015). In this set of studies, however, we look at the interaction between people and environments within a framework of a 2 (person SES: high vs low) by 2 (environment SES: high vs low) design. This is a more complete design which allows us to see under which conditions people from different social class backgrounds agree about a given environment, and under which conditions they disagree. We found that while participants agree about the status and aspirational value of an environment, their experiences of interpersonal belonging within that environment differ based on their social class background.

Past research has also focused on the many psychological costs that students from lower social class backgrounds experience in the higher socioeconomic environments of elite universities, such as lack of belonging (Ostrove & Long, 2007) and stereotype threat (Croizet & Claire, 1998). In the present set of studies, we offer an explanation for why students from lower social class backgrounds choose to enter these higher socioeconomic environments – it's because these environments are high-status environments that offer the opportunity for upward social mobility and support their aspirations for the future. On the flip side, we did not find that students from higher social class backgrounds were interested in lower socioeconomic environments, leading to a motivational asymmetry and suggesting a psychological reason (lack

of belonging in addition to lack of resources) which may explain why sociological research has found deleterious effects of downward social mobility among privileged group members (Hochschild, 2016).

Limitations and Future Directions

In our mind, this set of studies has two main limitations. The first limitation concerns our study results from Study 1 and the fact that we don't know the casual mechanism for differences in belonging between students from higher versus lower social class backgrounds found in that study. We theorize that students from lower social class backgrounds experience equal levels of belonging in higher and lower socioeconomic environments because they have more experience moving between different environments, as shown in Study 3, and are therefore familiar with both types of environments. That is, movement between different socioeconomic environments is expected to mediate differences in belonging between students from higher versus lower social class backgrounds. However, without testing the variables of movement between different environments and belonging in one study, it is hard to know whether this argument is valid. Future research should test causal mechanisms for belonging, including whether the extent to which participants move between different socioeconomic environments influences their level of familiarity with different environments, which in turn influences perceptions of belonging.

The second limitation concerns our study population across all three studies. It is centered around the idea that our sample of students at an elite university may not generalize to the experiences of individuals from higher and lower social class backgrounds in general. The students from lower social class backgrounds in our sample are unique in that through education at a prestigious university, they have greater opportunity for upward social mobility than many other people from lower social class backgrounds. They have also potentially had more exposure

to higher socioeconomic environments, since they currently attend college at an elite university in an affluent neighborhood, than other people from lower social class backgrounds. Being a part of a community in a higher socioeconomic environment, in the form of being a student at an elite university, is also a different experience than entering a higher socioeconomic environment in a subordinate role. Therefore, the experiences of the students in our sample likely differ from the experiences of workers from lower social class backgrounds in higher socioeconomic environments, such as cleaning people in office buildings and hotels, or maids and gardeners working in an affluent neighborhood. Overall, the students in our sample likely have more experience with higher socioeconomic environments and also feel more belonging in those environments than other people from lower social class backgrounds do.

If we conducted these studies with a general population of individuals from lower social class backgrounds, we might expect these individuals to experience more belonging in lower socioeconomic environments than higher socioeconomic environments. We might also expect that a general population of individuals from lower social class backgrounds would not have as much experience moving between different socioeconomic environments as the students in our sample, since some of them may remain in their home neighborhoods instead of traveling between different environments.

Students from higher social class backgrounds at an elite university also differ from high-SES individuals in general in important ways. For one, college students tend to be more liberal than the general population (Soffen, 2014). For another, college classes often cover issues like societal inequality and students from higher social class backgrounds may be more mindful of these issues than high-SES individuals in the general population. This may be why we did not see differences between students from higher versus lower social class backgrounds in

perceptions of social mobility, even though past research has found that individuals from higher social class backgrounds overestimate societal social mobility to a greater extent than individuals from lower social class backgrounds (Kraus & Tan, 2015). It is also possible that this population of students has had more exposure to lower socioeconomic environments, such as through international travel or volunteering in low-income communities, than high-SES individuals in general. This may be why they expressed increased adaptation to different socioeconomic environments, even more so than students from lower social class backgrounds. It would be interesting for future studies to test these concepts in a general population of individuals from higher social class backgrounds to see how they differ from the high-SES students in our sample. We would anticipate that a general population of individuals from higher social class backgrounds would pay less attention to lower socioeconomic environments than the students in our sample, perhaps confirming our earlier prediction (Prediction 3) that participants from higher social class backgrounds would pay more attention to higher socioeconomic environments than lower socioeconomic environments. We might also expect that a general population of individuals from higher social class backgrounds would say that they are less adaptable to different socioeconomic environments than the high-SES students in our sample.

Conclusion

Results from our studies support the assertion that individuals from lower social class backgrounds are motivated to go into higher socioeconomic environments more so than the inverse. They may do so because they agree with individuals from higher social class backgrounds that these environments are more conducive to status attainment than lower socioeconomic environments. Although individuals from lower social class backgrounds expressed similar levels of belonging across socioeconomic environments at the present, their

future aspirations reflect a desire to be in higher socioeconomic environments. This suggests a desire for upward social mobility. Meanwhile, participants from higher social class backgrounds also expressed a preference for higher socioeconomic environments both in the present and in the future, suggesting desires to maintain their own social status and avoid downward social mobility. Many of our society's issues around social class and social mobility concern the impact of environments, whether those environments are elite universities, parts of the country undergoing an economic decline, or even borders between countries that migrants cross in the hopes of a better life. Understanding people's motivations for entering new socioeconomic environments sheds light on the important impact of physical environments for people's goals and aspirations.

Appendix A. Photos of each environment (Studies 1 and 2).

	High SES Environments	Low SES Environments
Houses		
Supermarkets		
Parks		
Offices		
Libraries		

Appendix B. Attentional Recall Questions for Houses (Study 2)

Please answer the questions below (to the best of your ability) based on the image of the house you just viewed.

1. Are there clouds in the image?

- o Yes
- o No
- o Not sure

2. Does the house in the image have a chimney?

- o Yes
- o No
- o Not sure

3. Are there trees in the image?

- o Yes
- o No
- o Not sure

4. Is there a fence in the image?

- o Yes
- o No
- o Not sure

5. Is there exposed dirt in the image?

- o Yes
- o No
- o Not sure

6. Does the house in the image have a porch?

- o Yes
- o No
- o Not sure

7. How many windows does the house have?

- o More than 3
- o 3 or less
- o Not sure

Appendix C. Attentional Recall Questions for Offices (Study 2)

Please answer the questions below (to the best of your ability) based on the image of the office you just viewed.

1. Was the main building in the image a one-story building or a multi-story building?

o One-story

o Multi-story

o Not sure

2. Were there signs on the main building?

o Yes

o No

o Not sure

3. Can you see the inside of the main building?

o Yes

o No

o Not sure

4. Were there cars in the image?

o Yes

o No

o Not sure

5. Was there at least one tree in the image?

o Yes

o No

o Not sure

6. Was there a stoplight in the image?

- o Yes
- o No
- o Not sure

7. Was there a lamppost in the image?

- o Yes
- o No
- o Not sure

Appendix D. Movement Between Different Environments Scale (Study 3)

For these questions, we would like you to think about the socioeconomic status of the environments that you frequently find yourself in.

1	2	3	4	5	6	7
Not at all			Somewhat			Very much

In my daily life, I often move between different socioeconomic environments.

My high school and home were located in a similar socioeconomic neighborhood. (R)

UCLA's campus is located in a nicer neighborhood than the one I grew up in.

I frequently spend time in places that are socioeconomically different from one another.

I have had a lot of exposure to different socioeconomic environments in my life.

Appendix E. General Trait Adaptation Scale (Study 3)

(Adapted from Ployhart & Bliese, 2006)

This part of the survey asks a number of questions about your preferences, styles, and habits. Read each statement carefully. Then, for each statement, choose the answer choice that best represents your opinion.

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree

Cultural
I work well with diverse others
I feel comfortable interacting with others who have different values and customs
I enjoy the variety and learning experiences that come from working with people of different backgrounds

Work Stress
I feel unequipped to deal with too much stress (R)
I am usually stressed when I have a large workload (R)
I often cry or get angry when I am under a great deal of stress (R)

Interpersonal
I tend to be able to read others and understand how they are feeling at any particular moment
I adapt my behavior to get along with others
I believe it is important to be flexible in dealing with others

Learning
I quickly learn new methods to solve problems
I take action to improve school performance deficiencies
I take responsibility for acquiring new skills

Creativity
I see connections between seemingly unrelated information
When resources are insufficient, I thrive on developing innovative solutions
I am able to look at problems from a multitude of angles

Crisis
I think clearly in times of urgency
In an emergency situation, I can put aside emotional feelings to handle important tasks
I make excellent decisions in times of crisis

Uncertainty
I am able to make effective decisions without all relevant information
When something unexpected happens, I readily change gears in response
I easily respond to changing conditions

Physical
I keep working even when I am physically exhausted
I can work effectively even when I am tired
I physically push myself to complete important tasks

Appendix F. Adaptation to Different Environments Scale (Study 3)

An individual's social class is usually determined by a combination of their income, educational attainment and occupation.

A person's social class can be a part of their identity, as well as be reflected in the environments that they find themselves in.

Read each statement and think about how much you agree or disagree with the statement.

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree

I am comfortable switching between different social class environments.

I feel like I fit into both higher and lower social class worlds.

I can easily adapt to different social class environments.

I get uncomfortable when I enter a social class environment that is unfamiliar to me. (R)

Appendix G. Social Class BiCultural Identity Scale (Study 3)

(Partially adapted from Herrmann & Varnum, 2018)

An individual's social class is usually determined by a combination of their income, educational attainment and occupation.

A person's social class can be a part of their identity, as well as be reflected in the environments that they find themselves in.

Read each statement and think about how much you agree or disagree with the statement.

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree

I identify with more than one social class.

I primarily identify with only one social class. (R)

Both higher and lower social class identities are an important part of how I see myself.

Both higher and lower social class cultures have made me who I am today.

Appendix H. Social Mobility Scale (Study 3)

(Partially adapted from Day & Fiske, 2016)

Please indicate how much you agree or disagree with the following statements about social mobility in American society.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree

It is not too difficult for people to change their position in society.

Most people end up staying in the same social class for their entire lives. (R)

If you are born rich, it is very unlikely you will ever be poor. (R)

If you are born poor, it is very unlikely you will ever be rich. (R)

These days, it is easy to change one's social class.

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