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A Matter of Good Taste: The Antecedents, Mechanisms, and Consequences of Social Class Signaling

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**Publication Date** 

2021

Peer reviewed|Thesis/dissertation

# A Matter of Good Taste: The Antecedents, Mechanisms, and Consequences of Social Class Signaling

by

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A dissertation proposal submitted in partial satisfaction of the

requirements for the degree of

Doctor of Philosophy

in

Psychology

in the

Graduate Division

of the

University of California, Berkeley

Committee in Charge:

Professor Dacher Keltner, Chair

Professor Serena Chen

Professor Cameron Anderson

Summer 2021

#### Abstract

## A Matter of Good Taste: The Antecedents, Mechanisms, and Consequences of Social Class

Signaling

by

Daniel M. Stancato

## Doctor of Philosophy in Psychology

University of California, Berkeley

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Scholars across the social sciences have detailed how class-related norms, tastes, and social expectations-termed *cultural capital*-represent potent markers of class identity and create symbolic borders between classes. A crucial hypothesis stemming from this foundational work is that, in addition to reflecting social position, cultural markers help to produce it. In this dissertation, I present the results of five studies that provide insight into how those from upperclass backgrounds use culture to both help constitute their own identities and acquire a disproportionate share of prestigious accolades and opportunities. Over the course of the first three studies, I revealed that the preference for "highbrow" tastes for cultural products such as music and films is a conscious and strategically observable behavior among upper-class individuals, manifesting only in symbolic (public) aspects of one's identity (Study 1), in situations where others are present (Study 2), and potentially in contexts where there is motivation to maintain a position of identity divergence from lower-class individuals (Study 3). The final two studies shed light on *why* upper-class individuals engage in such overt presentations. Specifically Study 4 demonstrates that individuals signaling highbrow cultural capital are perceived as wealthier, more competent, and more deserving of a prestigious occupational role compared to a target signaling popular cultural capital. Then, in Study 5, I leveraged an audit experiment in which emails were sent to admissions counselors at colleges and universities across the U.S., ostensibly from a high school student seeking application guidance, to reveal that counselors were more likely to respond to students signaling highbrow extracurricular activities, particularly counselors from more expensive institutions. Furthermore, counselors who did respond expended greater observer-rated effort in their responses when the student was signaling highbrow cultural capital. Overall, these findings reveal that signals of cultural capital can be potent sources of inequality maintenance, legitimization, and expansion.

Keywords: cultural capital, social class, status signaling, social identity, economic inequality

#### Acknowledgements

Firstly, I want to extend my deepest gratitude to my advisors Dacher Keltner and Serena Chen. Without their patience and support through my numerous health issues, transition to a career in industry, and other trials and tribulations over the last several years, my professional accomplishments would most certainly not have been possible. I also want to extend a massive thank you to my dear friend and undergraduate mentor Paul Piff, whose energy and enthusiasm for social scientific research is in many ways is the reason I pursued this degree in the first place. These individuals truly represent the gold standard of academic guidance and support (academic or otherwise) and have instilled in me the drive to prioritize mentorship in all my endeavors.

To this point, I want to thank the honors students I've had the privilege of mentoring over the years—Aldo Barrita, Bradley Hughes, and Savannah Rae—as well as the army of research assistants without whom my research literally would not have happened, including the studies included in this dissertation. I also want to acknowledge the numerous IPSR grad students and post-docs I've gotten to know and build community with over my many years in grad school, particularly the following individuals for their collaboration, friendship, and support: Malik Boykin, Minha Cho, Paul Connor, Fausto Gonzalez, Laura Guzman, Jessica Jones, Jordan Leitner, Michael O'Donnell, Jordan Tharp, and Amanda Wang. Finally, I would be remiss to not mention the UC Berkeley Psych Department staff—and in particular John Schindel and Julie Aranda—for their tireless efforts in helping me navigate the murky administrative waters of this university.

Of course, on a more existential level, none of this would have happened if it wasn't for my family. In all seriousness, my overwhelming love and gratitude goes out to my parents, Patrice and Ralph, for their inexhaustible support and encouragement and for being genuinely interested in my work and career (big shout out to my mom for being the only parent I've seen attend IPSR colloquia). They have always been a source of warmth, humor, joy, and comfort, and I owe much of my resilience and determination to their presence in my life. I also want to thank my brother David, who blazed the doctoral trail in my family and imparted to me a passion for intellectual pursuit (those who knew me as a teenager know that this was no small feat), and whose perseverance in the face of immense personal challenges has been a profound inspiration.

Last but most certainly not least, I want to express my greatest appreciation, respect, and admiration for my wife Sara, whom I was fortunate enough to meet in our first-year statistics course. I entered the UC Berkeley Psych grad program to obtain some publications and a degree, and I ended up leaving with the most thoughtful and brilliant partner one could ask for. She has been there to celebrate the most jubilant of successes and to provide the tenderness, compassion, and, when needed, a verbal kick in the butt needed to help me get through my greatest challenges, all the while meeting and exceeding the demands of her own doctoral work. She is my north star for what I aspire to be both personally and professionally, and it's been an honor to have her by my side through the last seven years.

## A Matter of Good Taste: The Antecedents, Mechanisms, and Consequences of Social Class Signaling

Social class is a potent influence on psychosocial experience. People tend to live, work with, marry, and socialize with individuals who share similar class backgrounds (DiMaggio, 2012; Kraus et al., 2013; Ridgeway & Fisk, 2012). Across social scientific disciplines, scholars have argued that class divides have given rise to class-related norms, tastes, and social expectations—termed *cultural capital* (Bourdieu, 1984)—that mark an individual's class identity and construct symbolic borders between classes (e.g., DiMaggio & Mohr, 1985; Holt, 1995; Lamont, 1992; Lizardo, 2006, 2013; Reeves et al., 2015). Such markers often take the form of consumption behavior—dress, automobiles, food, music, and films can act as signals of class-based identity (Becker et al., 2017; Goffman, 1959; Holt, 1998; Veblen, 1899/1973; Weber, 1968/1978).

In a highly unequal society such as the United States, where social comparison is highly salient due to the widespread belief that one's socioeconomic rank is a function of ability and competence (Cheung & Lucas, 2016; Durante et al., 2013; Durante et al., 2017; Jost et al., 2002; Wilkinson & Pickett, 2010), the outward signaling of upper-class cultural capital by wealthier members of a society may serve as a strategic behavior designed to provide evidence of their success and high rank, divergence from those of lower rank, and deservingness of social prestige and economic opportunity (e.g., Berger & Heath, 2007; 2008; DiMaggio & Mohr, 1985; Lamont, 1992; Lizardo, 2013; Walasek & Brown, 2015).

In this dissertation, I present the results of five studies that provide insight into how classrelated cultural capital signaling practices create and perpetuate socioeconomic disparities. In the first three studies, I test the overarching hypothesis that the orientation towards "highbrow" tastes in cultural products such as music and films is a conscious and strategic behavior that is predominantly expressed in ways that are public and observable. The final two studies attempt to shed light on *why* upper-class individuals engage in such overt demonstrations, testing the hypothesis that such signals bestow upon individuals benefits of being perceived as more competent and worthier of economic and educational opportunities.

### Social Class and the Centrality of Cultural Capital

Social class (socioeconomic status or SES) is typically measured using indices of educational attainment, annual income, and occupational status (Adler et al., 1994; Kraus et al., 2012; Marmot et al., 1991; Oakes & Rossi, 2003). Recent advances reveal that the objective material aspects of social class shape how individuals perceive their own economic position in the social class hierarchy vis-à-vis others, or what is known as subjective social class (Kraus et al., 2012). Specifically, individuals rank themselves within their small social groups, local community, and society at large by comparing their own income, education, and occupational status to that of others (for a review, see Kraus et al., 2013). This ranking process is facilitated by the capacity for individuals to accurately assess the social class of others (Kraus & Keltner, 2009). In this paper I do examine the effects of objective indices of social class (most prominently educational attainment, given its role in propagating cultural capital, a point which I explore in greater depth below; Bourdieu, 1984), but posit that subjective SES will more directly influence signaling-related processes, given its relation to social comparative processes that drive inequality and status perception.

Upper-class standing can be signaled via numerous channels that are consistently detected by others (see Kraus et al., 2017). For example, observers can reliably infer that a target

is high in SES as a function of nonverbal behavior (e.g., physical appearance, facial cues, signals of aloofness; Becker et al., 2017; Bjornsdottir & Rule, 2017; Kraus & Keltner, 2009; Kraus & Mendes, 2014; Schmid Mast & Hall, 2004), linguistic cues (e.g., word choice, accents; Giles & Sassoon, 1983), and high-end material goods (i.e., conspicuous consumption; Dubois & Ordabayeva, 2015; Griskeviciuis et al., 2007; Han et al., 2010; Lee & Shrum, 2012; Nelissen & Meijers, 2011; Rucker & Galinsky, 2008, 2009; Sundie et al., 2011; Veblen, 1899/1973).

Upper-class standing is also signaled via cultural capital, the focus of this dissertation. Cultural capital refers to non-financial social assets—such as distinctive tastes and practices that maintain and elevate social class standing above and beyond economic resources (Bourdieu, 1984). All social groups possess their own form of cultural capital, but these different forms are not afforded equal status. In his seminal book Distinction: A Social Critique of the Judgement of Taste, Bourdieu provided a meticulous description and analysis of what he termed the habitusthe deeply ingrained habits, skills, and dispositions that individuals possess due to their life experiences, such as tastes and preferences in the arts (e.g., music, film), food, and leisure activities. He also detailed the historical establishment of a "cultural hierarchy" as a central facet of economic inequality, with "highbrow" on one end of the continuum (e.g., preference for and knowledge of classical music and French cuisine) and "mass," "popular," or "lowbrow" on the other (e.g., preference for fast food or popular music; see also Levine, 1990). Thus, though the exact practices and preferences that denote highbrow status have shifted since Bourdieu's analysis (e.g., Peterson & Kern, 1996), it remains evident that individuals from different social classes create class-specific social spaces by exhibiting different lifestyles that reflect their position on society's social ladder.

This foundational work has posited that the relationship between cultural capital and social rank is bidirectional—in addition to reflecting social position, cultural markers help to produce rank-related differences between individuals (Bourdieu, 1984, 1993). Those from upperclass backgrounds use culture to both form their own identities and acquire a disproportionate share of prestigious accolades and opportunities (Beckert, 2003; Lamont, 1992), resulting in the formation and maintenance of exclusive, class-based networks of different kinds, from the educational to the recreational (Lizardo, 2006). However, most of the research supporting these ideas is qualitative and/or correlational in nature and focused on describing hierarchical dynamics at the collective level (e.g., within organizations or societies). Little is known about the causal processes occurring within and between individuals that bring about and result from the signaling of upper-class cultural capital. However, recent work exploring the psychological forces that motivate status signaling and perpetuate social hierarchy and inequality sets the stage for hypotheses concerning the functions, antecedents, consequences of upper-class signaling practices (e.g., Dubois & Ordabayeva, 2015; Kraus et al., 2017).

#### The Antecedents of Upper-Class Cultural Capital Signaling

The fields of social and consumer psychology have elucidated numerous precursors to status signaling behaviors, including psychological (e.g., self-threats; Arndt et al., 2004; Burroughs et al., 2013; Chang & Arkin, 2002; Ivanic et al., 2011; Lee & Shrum, 2012, 2013; Rucker & Galinsky, 2008, 2009, 2013) and economic factors (e.g., Alpizar et al., 2005; Bagwell & Bernheim, 1996; Charles et al., 2009; Dynan et al., 2004; Kamakura & Du, 2012; Ordabayeva & Chandon, 2011; Sharma & Alter, 2012; Walasek & Brown, 2015). However, in keeping with the sociological theory and data described above focusing on the role of cultural capital signaling in producing and maintaining high rank (and the social esteem that accompanies it; e.g., Beckert,

2003; Bourdieu, 1984; Lamont, 1992), I posit that the drivers of cultural capital signaling among upper-class individuals are primarily social or interpersonal in nature.

Cultural capital signaling (and status consumption more broadly) is thought to serve both *associative* and *dissociative* functions, facilitating the construction of and exclusivity of social groups (Aspers & Godart, 2013; Bourdieu, 1984; Dubois & Ordabayeva, 2015). For example, Berger and Ward (2010) have documented that people with more cultural capital in a particular domain (e.g., fashion students) prefer subtle signals (e.g., inconspicuous brand logos) to facilitate communication and affiliation with others "in the know." Conversely, Berger and Heath (2008) found that individuals try to dissociate from dissimilar groups (e.g., the "geeks" in the dormitory next door) by abandoning the products that those groups consume—for example, being less likely to choose a junk food item if it was framed as being highly popular among the dissimilar group, but only when the decision was made in view of others.

More specifically within the domain of class-based cultural capital, recent research found that individuals in a dyadic interaction can infer the social class of their interaction partner based on a discussion of their preferences for film, television, food, and beverages, and upper-class participants in this discussion showed fewer non-verbal behaviors indicative of low affiliation (i.e., face touching and postural constriction) when paired with another upper-class individual (Côté et al., 2017). Additionally, a recent empirical investigation of shared tastes and preferences in music, movies, and books on Facebook showed that, in general, there is little evidence suggesting that tastes diffuse among friends, with the exception of tastes in classical and jazz music (Lewis et al., 2012). The authors speculate that the unique spread of these two musical tastes is due to their value as cultural signals of elevated social class. Cultural capital is thus a resource used by the upper classes to identify one another and preferentially allocate opportunities (Khan, 2012a).

Importantly, in nearly all studies conducted on this topic, the signaling behavior was considerably more likely to occur in public than it was in private, regardless of whether the situation was hypothetical or real (Berger & Heath, 2008; Berger & Ward, 2010; Dubois et al., 2012; Griskevicius et al., 2010). For example, Dubois and colleagues (2012) measured participants' preferences for status products in three hypothetical contexts: at home alone, by oneself in public at a restaurant, or at home with friends. They found that the more social the context, the more participants preferred status-enhancing products. In addition to the presence of observers, the identity of observers is also likely relevant to cultural capital signaling. Consumption of status-enhancing goods escalates in the presence of others who are relevant to one's social identity—individuals whom the consumer wants to impress or with whom they want to affiliate (Dubois & Ordabayeva, 2015). In a series of studies in which undergraduate students compared themselves to students enrolled in either the same major or a different major, preference for high-status products was most pronounced in the presence of others from the same major (Mandel et al., 2006).

These lines of research converge on the conclusion that upper-class cultural capital should carry considerable value for *symbolization* processes—it should be reflected in people's actions within their social networks, such as the activities one engages in with others, organizations they belong to, and products they display publicly—but may not be as central to the internalized self-concept. In the present research, I show the results of correlational and experimental research examining the extent to which upper-class individuals prioritize cultural capital in internalized (private) versus symbolic (public) contexts as well as whether the class background of an interaction partner influences this process.

Hypothesis 1: Social class will be positively associated with valuing taste (e.g., in music and film) as an aspect of one's public identity (symbolization) but will not be associated with valuing taste as an aspect of one's private identity (internalization).

Hypothesis 2: Upper-class individuals will be more likely to prefer highbrow cultural products (e.g., classical music) over popular cultural products when making consumption decisions in public but will not show the same preferences in private.

Hypothesis 3: The effect described in Hypothesis 2 will only be observed when upperclass individuals are making decisions in view of other upper-class individuals but not when making decisions in view of lower-class individuals.

### The Consequences of Upper-Class Cultural Capital Signaling

The fact that engagement with status-enhancing goods tends to be more prevalent in public contexts suggests that individuals should receive social benefits from signaling upperclass cultural capital. Recent work on class-based stereotypes and perceptions provides suggestive evidence as to what these benefits may be. Signals of social class trigger a specific set of stereotypes—the rich are consistently viewed as low in warmth but high in competence, and the poor as low in both warmth and competence (Fiske et al., 2002). This association has replicated across 37 cultures (Durante et al., 2013), as well as numerous methodologies and participant samples (Fiske et al., 2007), including more naturalistic contexts. For example, signals of wealth found in archival media sources (i.e., magazines from Italy's fascist era) were associated higher competence ratings (Durante et al., 2010).

If people perceive upper-class cultural capital as an indicator of competence, it is not difficult to imagine the considerable and myriad downstream consequences that arise from such signaling processes, and on this, correlational research has demonstrated the relationship between the possession of upper-class cultural capital and social and economic opportunities. For example, DiMaggio and Mohr (1985) showed that cultural capital—operationalized as engagement in and knowledge about various aspects of highbrow culture (e.g., attendance at symphony concerts and other arts events)—predicts weighty outcomes such as educational attainment and marital selection. Further, scholars have argued that the wealthy use such signals as a means of exclusion of outgroup members, for example through strategic management of entry in fine arts institutions (Ostrower, 2002).

Other studies of job hiring yield a similar pattern of results and elucidate the vital interplay between cultural and social capital. In one study, people who have a propensity to engage in a wide variety of cultural activities have a higher likelihood of having found out about their current job via a weak social network tie, demonstrating how cultural knowledge can produce professional opportunities even through distant acquaintances as opposed to only close friends or family (Lizardo, 2013). Qualitative research reveals that esteemed business firms rely on information regarding leisure activities and club memberships indicative of social class standing to preferentially target upper-class applicants (Rivera, 2016), while experimental work finds that signals suggestive of working-class membership result in a lower likelihood of the individual receiving a hypothetical job offer for a high-paying managerial position relative to signals of middle- or upper-class membership (Rivera & Tilcsik, 2016).

One particularly relevant domain in which cultural capital may have substantial sway is in educational experience and opportunity. Bourdieu (1984) stressed the criticality of higher education institutions as settings where the habitus is solidified, shared, and parlayed into

economic and professional opportunity. One crucial hypothesis that begs empirical validation is that the cultural hierarchy described by Bourdieu (1984) can impact educational outcomes before individuals are even granted or denied admission to an institution-specifically, when individuals make decisions on whether to even *apply*. Evaluations of one's own qualifications, which are heavily molded by feedback from others, can have a profound influence on these decisions. For example, students must receive guidance and encouragement from teachers and administrators (Correll, 2001, 2004; Milkman et al., 2015). Students from less privileged backgrounds often do not receive this level of encouragement to the same extent as wealthier students-for example, qualified low-income high school students are often not encouraged by guidance counselors to apply to highly selective colleges, even though those who do apply are just as likely to enroll and earn a degree as similarly-qualified high-income students (e.g., Avery et al., 2006; Hoxby & Avery, 2012). If individuals who lack upper-class cultural capital are perceived as less competent and meritorious, they may be more likely to be discouraged from applying to prestigious institutions, disadvantaged in navigating the admissions process, and disconnected from the informal networks that facilitate admission into certain universities (Golden, 2006).

Based on these findings, I examine the notion that people associate upper-class capital with competence, focusing on subtle, everyday markers of cultural capital (e.g., tastes in music and film) that have been largely neglected in experimental work. Furthermore, I investigate outcomes for individuals downstream of these perceptions, shedding light on how highbrow cultural signals (and the perceptions of competence that accompany them) can shape pivotal life events—being hired for a prestigious job and gaining admittance to colleges and universities.

Hypothesis 4: Participants will evaluate a target signaling upper-class cultural capital as more competent, higher in status, and worthier of being hired for a high-paying job relative to a target signaling lower-class cultural capital.

Hypothesis 5: Admissions counselors at colleges and universities will be more likely to respond to a prospective student—and will put forth more effort in their response when they do reply—when that student is signaling highbrow cultural capital compared to when they are signaling popular cultural capital. As a more exploratory addendum to this hypothesis, I will test whether this effect is stronger at colleges and universities with higher socioeconomic standing relative to those with lower socioeconomic standing.

#### **The Present Research**

This dissertation reports the findings from five studies that tested the hypotheses described above. The first three studies tested the overarching hypothesis that upper-class individuals are more likely to signal and express interest in highbrow cultural products such as classical music and independent films in ways and situations that are visible to others compared to when these preferences are less visible (Hypotheses 1-3). Lower-class participants, I hypothesized, would not display this difference. Study 1 was a correlational study in which I tested the hypothesis that upper-class individuals would be more likely than their lower-class counterparts to incorporate having "good taste" in cultural products as a central aspect of their identity, but only for symbolic or external aspects of identity and not for more private or internal aspects of identity. Studies 2 and 3 used experimental methodologies and hypothetical decision-making tasks to understand how the *presence* and *relevance* of others, respectively, exert a causal impact on the cultural capital signaling tendencies of upper-class individuals. In Study 2, I asked participants to indicate a preference between a traditionally highbrow (classical music) and

popular (pop music) piece of music in either a private or public setting, expecting social class to predict a greater preference for the highbrow piece of music in the private versus public conditions. Study 3 leveraged a hypothetical workplace scenario to assess inclinations towards highbrow and popular cultural products in imagined interactions with someone of the same versus a different social class background. Across the two experimental studies, I hypothesized that upper-class individuals would express greater interest in highbrow cultural products in public than in private, and particularly when imagining being in the presence of another individual of the same social class background.

The final two studies attempted to shed light on *why* upper-class individuals engage in such explicit signaling behavior, emphasizing the class-related benefits of cultural capital signaling (Hypotheses 4 & 5). In Study 4, I employed a lab-based experimental procedure in which participants listened to audio clips of an individual describing their tastes in music and movies, which were manipulated to come across as either highbrow or popular. Participants then rated this target individual on several characteristics, including perceived social class, competence, and merit in being hired for a high-paying job. I hypothesized that participants would rate the target signaling highbrow cultural capital as higher in all these domains relative to the target signaling lowbrow cultural capital.

In Study 5, which took place in a consequential interaction in the real world, I conducted an audit experiment—a type of field experiment used to test for the presence of discriminatory behaviors in which the research team applies for a service (e.g., a job, housing) under the guise of a fictitious individual (Gaddis, 2018). In the study, I sent emails to admissions counselors at colleges and universities across the U.S., supposedly from a high school student requesting admissions information. Information in the email was manipulated to communicate either highbrow or popular preferences for cultural products such as music, movies, and sports. I tested the hypothesis that counselors would be more likely to respond to students perceived to be conveying upper-class cultural capital relative to those perceived to be conveying lower-class cultural capital. Furthermore, I expected that, among counselors who do respond, greater effort would be expended for students signaling highbrow cultural capital compared to those signaling lowbrow cultural capital. I also tested the extent to which the wealth of the institution moderated this effect, with my exploratory hypothesis being that counselors from more expensive colleges and universities would show greater preferential treatment towards others articulating highbrow tastes relative to counselors from less expensive colleges and universities.

These studies contribute to the study of cultural capital signaling in a number of crucial ways. Though research in sociology has identified broad trends relating cultural capital to social network composition and life chances (e.g., DiMaggio & Mohr, 1985; Lizardo, 2013), the experimental methods in this research allow us to test causal hypotheses about how cultural capital influences social behavior, perception, and discrimination. Though it has long been established that upper-class individuals possess a set of tastes and preferences that identify them as wealthy and distinguish them from the lower classes (Becker et al., 2017; Beckert, 2003; Bourdieu, 1984; Holt, 1998; Lamont, 1992; Veblen, 1899/1973), the studies presented here provide insight into the contexts in which cultural capital signaling is most pronounced (i.e., private versus public), what aspects of identity cultural capital helps constitute (i.e., symbolic versus internalized), and what types of perceptions and behaviors result from these processes (e.g., perceptions of competence and warmth, discrimination in hiring and college recruitment). Finally, I investigate these processes using an array of methodologies (i.e., correlational, labbased experiments, field experiments) and participant samples (i.e., nationwide, university

students, admissions counselors), controlling for conceptually-relevant covariates (e.g., gender, race). Taken together, this research will provide a more comprehensive psychosocial account of the intrapersonal, interpersonal, and societal ramifications of cultural capital signaling.

### Study 1: Social Class and the Identity Centrality of Cultural Capital

Our identities are heavily influenced by the social groups to which we belong (Hogg, 2003; Oakes et al., 1994; Tajfel, 1981). The attitudes and behaviors that help us derive status and prestige are likely to occupy a more central position in one's sense of self (e.g., Becker et al., 2014; Vignoles, 2011). If the interpersonal and economic benefits upper-class individuals receive are to some extent contingent on displays of cultural capital, then the possession of this resource should play an important role in structuring social identity. On this point, one recent study found that upper-class respondents placed greater importance on elements of social class (e.g., educational attainment) as central to their sense of self (Easterbrook et al., 2020). However, it is worth investigating the extent to which upper-class capital is integrated into one's self-concept—termed *internalization*—versus aspects of self that are reflected in one's actions in the world—termed *symbolization* (Aquino & Reed, 2002). This differentiation would shed light on whether cultural capital signaling represents an authentic expression of one's core preferences versus a strategic demonstration designed to mobilize social and economic resources, gain status, and draw boundaries between themselves and lower-status others (e.g., Jones & Pittman, 1982).

In Study 1, I aimed to establish a preliminary conceptualization of the symbolic value cultural capital carries for upper-class identities. I employed a correlational design in which participants completed a measure of the extent to which having "good taste" in cultural products (e.g., music, movies, food) represents a central facet of their identities. I hypothesized that upper-class individuals would emphasize the centrality of cultural capital as a symbolic (public) —but not necessarily as an internal (private)—facet of their identities to a greater extent than their lower-class counterparts.

#### Method

#### **Participants and Procedure**

Three hundred three participants were recruited to participate in the study via Amazon's Mechanical Turk (MTurk) in exchange for \$0.50. Forty-eight participants were excluded from all analyses for failing an attention check, resulting in a final sample of 255 (116 female, 137 male, two undisclosed). The mean age of my final sample was approximately 36 years old (SD = 12.99). The breakdown in terms of race/ethnicity was as follows: 197 participants identified as White (77.3%), 22 identified as Asian or Asian American (8.6%), 16 identified as Black or African American (6.3%), 11 identified as Latinx (4.3%), two identified as Native American (0.8%), five identified as other race or ethnicity (2.0%), and two were undisclosed (0.8%).

Participants were told that they would be taking part in a study about their "values, personality traits, and beliefs about others." They first completed a demographic questionnaire which included measures of social class as well as several variables that were used as covariates in our analyses (i.e., age, gender, ethnicity, and conservatism), after which they completed my primary dependent measure (described in detail in the next section) followed by unrelated measures.

#### Measures

Descriptive statistics for all measures of social class, covariates, and outcome measures are shown in Tables 1a and 1b.

### Social Class

I assessed participants' social class using both objective and subjective measures. Specifically, I measured participants' childhood and current total household income (e.g., Oakes & Rossi, 2003), educational attainment (e.g., Snibbe & Markus, 2005), and subjective SES (e.g., Adler et al., 2000). Childhood SES was assessed by asking participants to rate their total household income while growing up using eight categories: (1) < 1 < 10, 000, (2) < 15, 001 - 25, 000, (3) < 25, 001 - 35, 000, (4) < 35, 001 - 50, 000, (5) < 50, 001 - 575, 000, (6) < 55, 001 - 100, 000, (7) < 100, 001 - 150, 000, or (8) > 150, 000. Current total household income was assessed using these same categories (Piff et al., 2010). I measured educational attainment by asking participants to rate their highest level of education completed: (1) did not finish high school, (2) high school graduate or some college, (3) college graduate, or (4) postgraduate degree (Piff et al., 2010).

To index subjective perceptions of social class rank, I used the MacArthur Scale of Subjective SES (Adler et al., 2000; Kraus et al., 2009). In this measure, participants are presented with a figure of a ladder with 10 rungs representing people with different levels of education, income, and occupational prestige and are instructed to select a rung to represent where they feel they stand relative to others in the U.S. Previous research has found that this measure of subjective social class rank predicts patterns in health (e.g., Adler et al., 2000), social cognition (e.g., Kraus et al., 2009), and interpersonal behavior (e.g., Piff et al., 2010; Piff, Stancato, Côté, et al., 2012) consistent with but often independent of objective, resource-based measures of social class (see Kraus et al., 2012, for a review).

Participants had a median childhood and current household income of \$35,001-\$50,000 and mean subjective SES of 4.89 (SD = 1.79). Regarding educational attainment, 119 participants (47%) were college graduates, 100 (39%) were high school graduates, 33 (13%) had obtained a postgraduate degree, one (0.4%) did not finish high school, and two (0.8%) did not answer the question.

# Cultural Capital Centrality

To assess the centrality of cultural capital as an aspect of one's identity, I adapted a measure called the Moral Identity Scale (Aquino & Reed, 2002), which assessed the extent to which being a moral person is a key feature of one's identity. In my version, participants received the following prompt:

Think of a person that has "good taste": That is, someone who is very cultured in their tastes and preferences for things like food, music, art, movies, literature, and travel. The person with these kinds of tastes and preferences could be you or it could be someone else. For a moment, visualize in your mind the kind of person who has these tastes and preferences. Imagine how that person would think, feel, and act. When you have a clear image of what this person would be like, answer the following questions.

Participants then responded to 10 items assessing the extent to which having "good taste" is a central aspect of their identity on a 1 (*strongly disagree*) to 7 (*strongly agree*) Likert scale. Following the procedure outlined by Aquino and Reed (2002), the scale is broken down into two subscales. The first subscale—symbolization—taps the degree to which cultural capital is reflected in the respondent's actions in the world (e.g., "I am actively involved in activities that communicate to others that I have these tastes and preferences"; M = 4.34, SD = 1.39,  $\alpha = 0.89$ ).

The second subscale—internalization—assesses the degree to which cultural capital is central to the self-concept (e.g., "Being someone who has these tastes and preferences is an important part of who I am"; M = 5.01, SD = 1.20,  $\alpha = 0.84$ ). A complete list of items is included in Appendix A.

#### *Covariates*

To determine the robustness of social class's relationship to cultural capital centrality over and above other conceptually related variables (e.g., Carfagna et al., 2014; Dumais, 2002; Lareau & Horvat, 1999), I measured several demographic factors to be entered as covariates into our analyses: age, gender, race/ethnicity, and conservatism. To assess conservatism, participants were asked, "What is the extent to which you consider yourself to be a liberal or a conservative on most political and social issues?", to which they responded in a 7-point scale ranging from *extremely liberal* to *extremely conservative* (M = 3.14, SD = 1.54). For analysis purposes, race/ethnicity was coded such that White = 0 and person of color = 1.

#### Results

I first examined the zero-order correlations between measures of social class, cultural capital centrality, and demographic covariates (age, gender, ethnicity, and conservatism). As can be seen in Table 2, none of my predictor variables was significantly associated with internalization (i.e., the extent to which cultural capital is integral to the self-concept). Age and ethnicity were significantly associated with the symbolization of cultural capital (i.e., the extent to which cultural capital is reflected in one's public actions), such that being younger and identifying as a person of color both predicted increased symbolization. Among the measures of social class, income (current and childhood) and education were not significantly related to symbolization. However, in accordance with my main hypothesis, subjective SES positively predicted symbolization.

I next tested whether the relationship between subjective SES and cultural capital symbolization remained significant after controlling for demographic covariates. I tested this in the context of a regression analysis in which subjective SES, education, age, ethnicity, gender, and conservatism were entered as simultaneous predictors. I present the results of this analysis in Table 3. As the table shows, the positive relationship between subjective SES and symbolization remained significant. Interestingly, the relationship between educational level and symbolization (for which the zero-order correlation was only marginally significant) became significant when controlling for relevant covariates, indicating the presence of a suppressor effect (Conger, 1974). Also interesting, this effect was in the opposite direction from that of subjective SES—higher education level was associated with reduced cultural capital symbolization.

#### Discussion

Study 1 provided mixed support for my hypothesis that social class would be positively correlated with the extent to which having "good taste" is a key feature of one's identity (i.e., cultural capital centrality). Firstly, I did find significant relationships between some of my social class measures and cultural capital symbolization, while there were no such associations for cultural capital internalization. My measures of social class also diverged in terms of the direction of these relationships. Subjective SES was indeed positively related to cultural capital symbolization, even when controlling for a host of demographic covariates related to cultural capital (e.g., race, gender). On the other hand, education negatively predicted symbolization.

The finding that subjective SES was positively related to cultural capital symbolization and not internalization—points to intriguing implications. Judgments of subjective social class are inherently grounded in social comparison (e.g., Kraus et al., 2013) and enabled by accurate assessments of the social class of others (Kraus & Keltner, 2009). It has been theorized that social class signaling can both activate and result from social comparison processes that strengthen group boundaries between the haves and have nots in society (e.g., Kraus et al., 2017). Given this, the outward signaling of cultural capital may serve to provide evidence of success and high rank of upper-class individuals as well as divergence from those of lower rank (Berger & Heath, 2008; Lamont, 1992). Interpreted in this light, it is perhaps unsurprising that the relationship between cultural capital symbolization and subjective SES was the strongest effect I observed, as both measures are manifestations of social comparison processes based on outwardly visible signals of upper-class standing.

That greater educational attainment predicted less symbolization is more challenging to explain, especially considering relevant theorizing emphasizing the importance of cultural capital in higher education institutions (Bourdieu, 1984). These findings align more with more recent observations that educational attainment predicts cultural *omnivorousness*—having broad tastes across numerous cultural tastes and practices—rather than strong preference for traditionally highbrow cultural products (e.g., Goldberg, 2011; Peterson & Kern, 1996). As such, the negative relationship we observed between educational attainment and cultural capital symbolization may represent an increasing distaste for snobbish notions of "good taste." These speculations, ultimately, are post-hoc interpretations of correlational evidence; the fact that this effect only became significant when controlling for demographic covariates calls into question the robustness of this result given longstanding concerns about the replicability of suppressor effects (e.g., Maassen & Bakker, 2001).

#### Study 2: Social Class, Deployment of Cultural Capital, and the Presence of Others

My findings from Study 1—that individuals high in subjective SES express greater cultural capital centrality with regard to external manifestations of capital (e.g., clothing, hobbies), whereas no such difference exists for internal manifestations capital (e.g., personal importance and values)—would benefit from experimental research manipulating social context. In light of this, in Study 2, I experimentally varied whether participants made a hypothetical decision regarding cultural product preference in public versus private, hypothesizing that individuals higher in subjective SES would express greater interest in highbrow cultural products in public but not in private.

#### Method

#### **Participants**

A total of 256 participants (110 female, 146 male) participated in the study via MTurk in exchange for \$1. Twenty-four participants failed an attention check and were excluded from all analyses. Participants were asked to make a hypothetical decision regarding music preference and were randomly assigned to imagine making the decision in public or in private.

#### Procedure

After providing consent, participants were told that in this study of "factors that contribute to music preferences" they would be presented with two pieces of music along with a description of each. Participants were then randomly assigned to receive one of two instructions

(adapted from Griskevicius et al., 2010). In the private condition, participants read: "As you complete this task, imagine that you are by yourself at home as you are evaluating these pieces of music and deciding on which one you want to listen to." In the public condition, the instructions read: "As you complete this task, imagine that you are out with friends as you are evaluating these pieces of music and deciding on which one you want to listen to."

Participants were then presented with pictures of two music albums (participants did not actually listen to any music in this study; see Figure 1). The popular album was *Prism* by pop singer Katy Perry. The highbrow album was *Symphony No. 15* by 20<sup>th</sup> century composer Dmitri Shostakovich, performed by the London Philharmonic Orchestra. The stimuli were presented side-by-side with a short description below each image (we counterbalanced which album was displayed on the left vs. right side of the screen). For the Katy Perry album, the description read: "International pop sensation; throughout her career, she has sold 11 million albums and 81 million singles worldwide." For the Dmitri Shostakovich album, the description read: "Prominent figure of 20<sup>th</sup>-century classical music; winner of the Gold Medal of the Royal Philharmonic Society." The positioning of the stimuli on the screen was counterbalanced across participants. Participants were asked to indicate which piece of music they would prefer to listen to on a bipolar scale ranging from 1 (*definitely Katy Perry*) to 7 (*definitely Dmitri Shostakovich*). The mean on this item was 3.91 (*SD* = 2.29), indicating a roughly equal preference for both pieces of music.

Finally, participants completed a demographic questionnaire that included our key SES measures from Study 1—the MacArthur Scale of Subjective SES (Adler et al., 2000) and educational attainment—as well as age, gender, ethnicity, and conservatism. The sample had a mean subjective SES of 4.78 (SD = 1.68). The breakdown in terms of educational attainment was nearly identical to that of Study 1.

#### Results

I first tested the effect of stimulus order (i.e., whether the highbrow music was presented on the right or left of the screen) on music preference, and surprisingly, found a significant effect such that participants were more likely to prefer the highbrow music when it was presented on the left (M = 4.24, SD = 2.28) than when it was presented on the right (M = 3.57, SD = 2.26), t(230) = 2.283, p = .024, d = 0.30, 95% CI = [0.04, 0.56]. Considering these results, I controlled for stimulus order in my main analyses.

To test my main prediction that imagining making the music choice in public versus private would moderate the relationship between social class and cultural capital signaling, I regressed the music choice measure on subjective SES, educational attainment, the private/public manipulation, and the interaction between experimental condition and our social class variables, while controlling for gender (male = 0, female = 1), ethnicity (White = 0, person of color = 1), age, and conservatism (consistent with Study 2), as well as stimulus order.

I found no main effect of our experimental manipulation—private versus public choice on music preference, b = 0.332, 95% CI = [-0.257, 0.922], t = 1.111, p > .250. I also did not observe a significant effect of educational attainment, b = 0.113, 95% CI = [-0.331, 0.557], t =0.500, p > .250, nor a significant interaction between education and experimental condition, b = -0.135, 95% CI = [-0.745, 0.475], t = -0.135, p > .250. Thus, I did not conceptually replicate the pattern in Study 1 suggesting that individuals with more education display reduced cultural capital symbolization (i.e., decreased proclivity for public displays of highbrow cultural capital) compared to their less educated counterparts. However, I did observe the expected interaction between subjective SES and the manipulation, b = 0.808, 95% CI = [0.184, 1.431], t = 2.553, p = .011 (see Figure 2). A simple slopes analysis showed that, in the private condition, subjective SES was unrelated to music preference, b = -0.297, 95% CI = [-0.755, 0.160], t = -1.280, p = .202. However, when participants were imagining making the decision in public, social class positively predicted choosing the highbrow choice, b = 0.510, 95% CI = [0.092, 0.929], t = 2.403, p = .017.

#### Discussion

Study 2 partially replicated key findings from my initial correlational study. On the one hand, I did not find that educational attainment had a negative relationship (or any relationship) to preference for highbrow cultural products, regardless of whether the participant imagined expressing this preference in private versus public. Thus, my effect from Study 1 that more highly educated individuals showed reduced cultural capital symbolization was not reproduced in an experimental context. However, consistent with Hypothesis 2, I did find that participants higher in subjective SES expressed a greater preference for highbrow music, but only when imagining making this decision in public—the preferences of high-subjective SES individuals did not differ from their low-subjective SES counterparts when imagining making this same decision alone in private. This result is analogous to the finding from Study 1 that subjective SES was positively related to cultural capital symbolization. I have now established a relationship of subjective SES to increased preference of highbrow cultural products that is both situationally-specific (i.e., only occurs in public contexts, demonstrating the symbolic, status-signaling function of such preferences) and robust across multiple research methods.

#### Study 3: Social Class, the Deployment of Cultural Capital, and the Status of Others

Though the findings from Study 2 represent the first *experimental* evidence of cultural capital signaling, important issues remain unresolved. One concern is that the instructions for the public condition specified that participants imagine that they were "out with friends." Given that people tend to reside near and form friendships with individuals who share similar class backgrounds (DiMaggio, 2012; Kraus et al., 2013; Ridgeway & Fisk, 2012), it is likely that the upper-class individuals imagined being in a social situation with similarly affluent others. This is worth exploring. Status consumption tends to be highest in the presence of observers who are relevant to one's social identity (i.e., those whom one wishes to impress or with whom one wishes to affiliate; Berger & Heath, 2008; Han et al., 2010; Mandel et al., 2006). With these findings in mind, in Study 3, I examined the extent to which varying the class background of an imagined interaction partner affected cultural capital signaling.

#### Method

#### **Participants**

A total of 816 participants (274 female, 536 male) were recruited to participate in the study via MTurk in exchange for \$1.20. A total of 171 participants failed both attention check questions and were excluded from all analyses, leaving a final sample of 645. Given the difficulty of my attention checks, participants were not excluded if they failed one of the two questions. Participants were asked to make a hypothetical decision regarding music preference and were randomly assigned to imagine making the decision in public or in private.

## Procedure

Participants were told that they would be taking part in a study about "attitudes and preferences toward different types of products." After completing the demographic questionnaire from previous studies, they were given the following hypothetical scenario:

Imagine that the company at which you work has decided to institute a program to improve social connections between people from different organizational units and different rungs in the organizational ladder. As part of this program, you have been paired with another employee with whom you are asked to meet periodically and get to know one another.

They were then given a short description of the hypothetical employee—specifically their name, position at the company, and a photograph—which differed depending on experimental condition (e.g., Maaravi & Hameiri, 2019; Rivera & Tilcsik, 2016). In the lower-class condition, participants were presented with the photograph shown on the left in Figure 3 and told that this individual's name was James Clark and that his occupation was in Maintenance Services. In the upper-class condition, participants were presented with the photograph shown on the right in Figure 3 and told that the individual's name was James Cabot and that his occupation was as the Vice President of Marketing. Finally, in the control condition, participants were given no information about the employee with whom they had been paired. The photographs in the lowerand upper-class conditions were pre-tested in a separate study and the target individuals were confirmed to be perceived as being from different income levels while being matched on perceived race, age, and attractiveness (Connor et al., 2021). The names and occupations had been used to manipulate the perceived social class of a target individual (Rivera & Tilcsik, 2016). I used only male targets in this experiment, as mean perceived incomes in the pilot research showed more variation for males than for females (Connor et al., 2021), so focusing on males allowed us to maximize the perceived social class difference in my stimuli.

After reading the hypothetical scenario, participants completed my key manipulation checks and dependent measure, followed by two attention check items in which they were asked to recall the hypothetical employee's name and role at the company. Lastly, participants were debriefed and thanked for participation.

### Measures

#### Manipulation Checks

Participants responded to three items to confirm that the perceived social class of the hypothetical target did indeed differ by experimental condition (Bellezza et al., 2017). Specifically, participants answered the following three questions: (1) On a scale from 1 to 7, how would you rank the social status of the other employee? ( $1 = Low \ social \ status$ ,  $7 = High \ social \ status$ ); (2) Do you think the other employee is financially wealthy? ( $1 = Not \ wealthy$ ,  $7 = Extremely \ wealthy$ ), and 3) The other employee has a high-income level ( $1 = Strongly \ disagree$ ,  $7 = Strongly \ agree$ ). The three items were collapsed into a single measure of overall status ( $\alpha = .94$ ).

#### Subjective SES and Demographic Covariates

As in the previous studies, subjective social class was assessed using the MacArthur Scale of Subjective SES (Adler et al., 2000; M = 5.03, SD = 1.91). I also assessed the same covariates as were measured in Studies 1 and 2—age, gender, race/ethnicity, education, and conservatism.

Cultural Capital Signaling

To assess the signaling of popular versus highbrow cultural capital, participants were given two further scenarios to assess their preferences in food and movies in the context of the interaction with the hypothetical other employee. To assess food preferences, participants were asked to imagine that they and the other employee have decided to go out to dinner after work for their first meeting and to rate eight types of cuisine as to how likely they would be to suggest each on a scale from 1 (*Extremely unlikely*) to 7 (*Extremely likely*). These eight cuisine types were selected based on past research suggesting that they vary in terms of perceived cultural capital (Atkinson & Deeming, 2015). Four cuisines were associated with popular culture (pizza, fast food, pub/bar food, and Mexican food) and four were associated with highbrow culture (Italian, French, seafood, and Asian fusion).

Similarly, to assess movie preferences, participants were asked to imagine that the other employee has told them that he and his wife want to go out to a movie over the weekend, and that he has asked for recommendations. Using the same rating scale as for the food preference measure, participants then provided recommendations for eight movies, four of which were associated with popular culture (e.g., a romantic comedy, an action/thriller) and four of which were associated with highbrow culture (e.g., a documentary, a foreign independent film). Participants were provided with the official poster and a summary of each movie, both taken from imdb.com, an online database for movies, television, and video games (see Appendix B for the full list of movies, posters, and summaries). For both food and movie measures, all items were pretested in a separate sample and were confirmed to be associated with the hypothesized social class groups.

I created two composite scales comprising preferences for popular (M = 4.46, SD = 1.09) and highbrow (M = 4.21, SD = 1.15) cultural products. Popular and highbrow subscales both exhibited acceptable reliability ( $\alpha = .72$  and  $\alpha = .77$ , respectively). For final analyses, I subtracted scores on the popular subscale from the highbrow subscale to create a difference score reflecting the extent to which participants preferred the highbrow cultural products to the popular products.

#### Results

### **Manipulation Check**

I first needed to confirm that our participants did perceive the hypothetical targets in each condition to differ in terms of perceived social class. To this end, a one-way analysis of variance (ANOVA) revealed significant condition differences in the perceived status of the target, F(2, 637) = 265.10, p < .001,  $\eta^2 = .454$ , 90% CI = [0.409, 0.493]. I conducted planned contrasts to determine whether the conditions differed in the expected direction (i.e., that the target would be perceived as significantly higher status in the upper-class condition and significantly lower status in the lower-status condition compared to the control condition). The first contrast confirmed that the target in the upper-class condition (M = 5.81, SD = 0.77) was perceived as significantly higher in status compared to the target in the control condition (M = 4.51, SD = 0.87), t(637) = 19.67, p < .001, d = 1.98, 95% CI = [1.74, 2.22], and the second contrast confirmed that the target in the lower-class condition (M = 3.39, SD = 1.47) was perceived as significantly lower in status compared to the target in the control condition, t(637) = -19.56, p < .001, d = -1.89, 95% CI = [-2.12, -1.66]. In sum, our manipulation successfully altered participants' perceptions of the target's status in the prediction directions.

#### **Cultural Capital Signaling**

To test my main hypothesis concerning subjective social class, cultural capital signaling, and class of target, I used a multiple regression framework to explore the effects of subjective SES, experimental condition, and their interactions on stated preference for highbrow versus popular cultural products, while controlling for relevant demographic covariates (e.g., age, education, conservatism). Since my experiment contained three conditions, this variable was entered into the regression as two dummy coded contrast variables. Contrast 1 compared the lower-class target condition to the other two conditions, and Contrast 2 compared the upper-class target condition to the other two conditions.

The key results of this analysis are depicted in Figure 4. I observed significant main effects of experimental condition, such that participants in the lower-class target condition expressed a reduced preference for highbrow cultural products compared to participants in the other two conditions, b = -0.614, 95% CI = [-0.843, -0.386], t(593) = -5.277, p < .001, and participants in the upper-class target condition expressed an increased preference for highbrow cultural products, b = 0.844, 95% CI = [0.608, 1.080], t(593) = 7.018, p < .001. There was also a significant interaction between subjective SES and Contrast 1, b = 0.271, 95% CI = [0.021, (0.521], t(593) = 2.129, p = .034. Counter to my hypotheses, a simple slopes analysis revealed that subjective SES was positively and significantly related to preference for highbrow cultural products in the lower-class target condition, b = 0.213, 95% CI = [0.035, 0.391], t(595) = 2.346, p = .019, but had no relation to preference for highbrow products in the upper-class target condition, b = -0.031, 95% CI = [-0.214, 0.152], t(595) = -0.333, p > .250, or the control condition, b = -0.058, 95% CI = [-0.292, 0.175], t(595) = -0.490, p > .250. Finally, I found no significant main effect of subjective SES, b = -0.049, 95% CI = [-0.252, 0.154], t(593) = -0.471, p > .250, and no significant interaction between subjective SES and Contrast 2, b = 0.025, 95%CI = [-0.228, 0.278], *t*(593) = 0.192, *p* > .250.

#### Discussion

Overall, I failed to find support for my hypothesis that participants would be more likely to express a class-consistent preference for cultural products when interacting with someone from a similar social class background (e.g., that upper-class individuals would express greater interest in highbrow cultural products when interacting with another upper-class individual). I did, however, observe a main effect of partner social class such that participants imagining a social interaction with a lower-class individual expressed a reduced preference for highbrow cultural products compared to participants in the control condition, whereas participants imagining a social interaction with an upper-class individual expressed an increased preference for highbrow cultural products. I did also observe a significant interaction between participant subjective SES and target social class, but it was not in the predicted direction. I found that, compared to lower-class participants, upper-class participants were more likely to prefer highbrow cultural products when imagining an interaction with a lower-class target. Participant social class had no relation to cultural product preference in the upper-class target condition or control condition, and there was no main effect of participant social class across conditions.

The observed main effect that people express preferences for cultural products that match the perceived social class of the target individual suggests that people assume particular cultural preferences based on one's social class membership—an implication that is considered more thoroughly in the final two studies of this dissertation. My observed interaction between subjective SES and target social class such that subjective SES was positively related to preference for highbrow cultural products when imagining interacting with a lower-class target, whereas no such relationship emerged in either of the other two conditions, is more puzzling and ran counter to my hypotheses. One possible explanation for this finding stems from recent research on the idea of *divergence*, which suggests that people select cultural tastes that distinguish them from members of other groups (Berger & Heath, 2007; 2008). It is possible that my procedure, which involved a description of a hypothetical scenario involving employerenforced social connection with a target individual who works for the same hypothetical company, may have prompted individuals who perceive themselves as higher on the socioeconomic ladder to express a greater inclination towards highbrow cultural products as a means of distinctiveness from lower-class others. I note that the size of this interaction effect was quite small and in need of further testing (Simonsohn et al., 2014).

The results of Study 3 underscore an important point: People make assumptions about others' tastes and preferences in cultural products such as food and entertainment purely based on class-related visual cues (e.g., dress and other aspects of physical appearance). These results align with a now considerable amount of evidence establishing a link between a target's social class, perceptions of their social-psychological characteristics (e.g., competence, warmth), and consequential behaviors (e.g., exclusionary behaviors; Fiske et al., 2002, 2007). This past research combined with our results from Study 3 converge upon the hypothesis that if people infer a particular set of tastes and preferences from class-relevant information, the reverse should also be true—that people draw conclusions about one's social-psychological characteristics based on tastes and preferences in cultural products, and that these conclusions prompt behavioral tendencies that shape the individual's opportunities for upward mobility.

#### Study 4: The Influence of Cultural Capital Signaling on Attributions of Competence

My next studies flesh out the complex interplay between assessments of social class, judgments of others based on fundamental aspects of social cognition (warmth, competence; Fiske et al., 2002) and socioeconomic opportunity, leveraging data from both the lab and the real world to do so. In Study 4, I employed a lab-based experimental procedure in which participants listened to audio clips of an individual describing their tastes in music and movies, manipulated to seem either highbrow or popular, before making judgments regarding perceived competence and merit in being hired for a prestigious job. In Study 5, I used a novel audit experiment methodology exploring these dynamics in a setting crucial to economic opportunity and advancement—higher education. Specifically, I explored whether individuals experience barriers to entry into higher educational institutions as a function of cultural capital signaling. I hypothesized that individuals would perceive individuals expressing popular cultural capital to be less competent than those expressing highbrow cultural capital, and that they would face stiffer social and economic costs or barriers as a result (i.e., greater obstacles to obtaining gainful employment and educational prospects).

#### Method

#### **Participants**

A total of 299 undergraduate participants were recruited from the UC Berkeley Psychology Department's research participation program to participate in exchange for course credit. Thirty-two participants were excluded from all analyses for failing an attention check. With regard to the gender composition of the final sample, 200 participants identified as female, 66 identified as male, and one identified as genderqueer/non-conforming. The racial/ethnic breakdown of the sample is as follows: 128 participants (47.9%) identified as Asian, 67 (25.1%) identified as White, 30 (11.2%) identified as Latinx, 28 (10.5%) identified as multiracial, six (2.3%) identified as Black or African American, six (2.3%) identified as Middle Eastern, and two (0.7%) identified as Native Hawaiian or other Pacific Islander. The mean conservatism score was 2.72 (SD = 1.09) on the same seven-point scale from previous studies ( $1 = extremely \ liberal$ ,  $7 = extremely \ conservative$ ), indicating a considerably more liberal orientation than for MTurk samples. Participants were randomly assigned to evaluate an individual expressing either popular or highbrow tastes.

#### Procedure

Participants were told they would be taking part in a study investigating "how people form impressions of others." After completing our demographic questionnaire, they were then told that they would listen to two audio clips of a fellow UC Berkeley undergraduate discussing their preferences in movies and music, after which they would rate the individual on various dimensions. Participants then listened to the two video clips, one of which presented the target individual discussing their tastes in movies and the other presented the same individual discussing their tastes in music. In reality, the individual in all audio clips was a member of the research team reading a pre-determined script which varied depending on condition. In the popular condition, the script contained references to cultural products such as action movies and pop music, whereas in the highbrow condition, the script contained references to cultural products such as independent films and classical music.

After listening to the two clips, participants evaluated the target individual on several characteristics before being debriefed and thanked for their participation.

#### Measures

#### **Trait Ratings**

Participants rated the individual from the audio clip on traits related to warmth and competence—core dimensions of social cognition that covary with the perceived social class of others and predict both prosocial and exclusionary behaviors (e.g., Cuddy et al., 2007; Durante et al., 2007; Fiske et al., 2007). For this measure, participants received the sentence stem, "I think that the person in the audio clip is...," followed by a list of twelve traits—six related to competence (competent, confident, capable, efficient, intelligent, skillful) and six related to warmth (friendly, well-intentioned, trustworthy, warm, good-natured, sincere). For each trait, participants rated the extent to which they agreed with the assertion that the target individual possessed that trait (1 = strongly disagree, 7 = strongly agree). I created subscales for competence (M = 5.04, SD = 0.87,  $\alpha = .89$ ) and warmth (M = 5.13, SD = 0.86,  $\alpha = .88$ ) by aggregating the six traits related to each construct (Fiske et al., 2002).

## Perceived Current and Future Social Class

To assess perceived current social class, participants were asked to choose the class label they believed best described the individual in the audio clip from five options: (1) lower class, (2) lower middle class, (3) middle class, (4) upper-middle class, to (5) upper class. Consistent with previous studies of social class categories (e.g., Horberg et al., 2009; Stellar et al., 2012), participants reported a median social class of middle class (mean [M] = 3.45, standard deviation [SD] = 0.63). In light of the strong emphasis in the sociological literature on the criticality of highbrow cultural capital in bestowing upon college students future economic success, participants completed two items assessing the extent to which they thought the target individual would be economically successful in the future: "How prestigious of a job is the person in the audio clip likely to achieve?" and "How economically successful is the person in the audio clip likely to be in the future?" (adapted from Oldmeadow & Fiske, 2007). Participants responded to these items on a 1 (*not at all*) to 7 (*extremely*) Likert scale. The items were very highly related (r = .81) and were thus aggregated to form a single index of future economic success (M = 4.65, SD = 0.86).

### Hiring Scenario

Finally, participants completed a single item measuring the extent to which they thought the target individual would be a desirable candidate for a high-paying job: "Imagine that you are a hiring manager at a prestigious company. How likely would you be to hire this person for a managerial position?" Participants responded on a 1 (*extremely unlikely*) to 7 (*extremely likely*) bipolar scale (M = 4.69, SD = 1.16).

## Social Class

Social class was assessed via both the educational attainment and subjective SES measures from previous studies (Adler et al., 2000). However, as my participants in this study were university undergraduates, the wording of these measures was adapted to reference both mother's and father's highest level of education and family subjective SES. The breakdown of paternal educational attainment was as follows: 98 (36.7%) had a postgraduate degree, 84 (31.5%) were college graduates, 58 (21.7%) were high school graduates, and 19 (7.1%) did not finish high school. For maternal educational attainment, 79 (29.6%) had a postgraduate degree, 91 (34.1%) were college graduates, 64 (24.0%) were high school graduates, and 26 (9.7%) did not finish high school. The mean subjective SES for the sample was 6.34 out of 10 (SD = 1.65).

#### Results

For my main analyses, I compared my two experimental conditions for all dependent variables. In an exploratory fashion, we also probed for interactions between our manipulation and social class variables. I did not observe any such significant interactions for any of my outcome measures; only the main effects of condition are reported below.

#### **Perceived Current and Future Social Class**

I predicted that participants would attribute greater current and future social class to targets expressing highbrow taste relative to targets expressing popular taste. I indeed found that participants perceived the target in the highbrow condition (M = 3.67, SD = 0.64) to be higher in social class than the target in the popular condition (M = 3.23, SD = 0.55), t(265) = 6.023, p < .001, d = 0.74, 95% CI = [0.49, 0.98], thus replicating the findings of Becker and colleagues (2017). Similarly, I found that participants believed the target in the highbrow condition (M = 4.79, SD = 0.89) would achieve higher social class in the future relative to the target in the popular condition (M = 4.51, SD = 0.81), t(265) = 2.667, p = .008, d = 0.33, 95% CI = [0.08, 0.57].

#### **Trait Ratings**

In keeping with previous evidence showing that upper-class individuals are perceived as more competent than lower-class individuals (e.g., Durante et al., 2013; Fiske et al., 2002; Sarkar et al., 2020), participants rated the target in the highbrow condition as higher in competence (M = 5.39, SD = 0.77) than the target in the popular condition (M = 4.70, SD = 0.82), t(241) = 7.061, p < .001, d = 0.86, 95% CI = [0.61, 1.11]. Interestingly, participants rated the target in the highbrow condition as less warm (M = 5.02, SD = 0.89) than the target in the popular condition

(M = 5.23, SD = 0.83), t(262) = -1.979, p = .049, d = -0.24, 95% CI = [-0.48, -0.001]. Results of these analyses are depicted in Figure 5. Thus, though the evidence is mixed as to whether social class is related to perceived warmth (e.g., Durante et al., 2017; Oldmeadow & Fiske, 2010; Sarkar et al., 2020), it this study I indeed showed a small but significant effect such that individuals expressing highbrow tastes were perceived as colder.

### **Hiring Decision**

Given the established association between social class and perceived competence and ability (e.g., Fiske et al., 2002), I predicted that participants would be more likely to offer a job to a person expressing upper-class cultural capital. The results showed that this was indeed the case (see Figure 6): Participants expressed greater interest in hiring the target in the highbrow condition for a high-paying job (M = 4.91, SD = 1.19) compared to in the popular condition (M = 4.47, SD = 1.10), t(265) = 3.163, p = .002, d = 0.39, 95% CI = [0.14, 0.63].

#### Discussion

In Study 4, participants listened to a target individual discussing their tastes in music and movies, either signaling popular or highbrow tastes. I hypothesized that participants would rate the individual signaling highbrow tastes as higher in social class, future earning potential and occupational prestige, overall competence (but not necessarily warmth), and merit in being hired for a high-status managerial position. These hypotheses were confirmed—I observed large effects of cultural capital signaling on perceived social class and competence, as well as smaller but still significant effects on projected future social class and interest in hiring for a prestigious job, all in the predicted direction. Furthermore, I found that targets signaling highbrow cultural capital were perceived as less warm than targets signaling popular cultural capital (e.g., Durante et al., 2017; Oldmeadow & Fiske, 2010; Sarkar et al., 2020).

The results of the present study advance the cultural capital signaling literature in two ways. Firstly, I experimentally replicated the finding that expressions of cultural capital on online social networks can signal social class and extended this finding to offline interactions (Becker et al., 2017). Secondly, I extended this research by showing that these cultural signals can have meaningful downstream consequences—specifically that they can lead to differential perceptions of competence and hiring. Cultural signaling has real corollaries for economic opportunity. Growing up in a socioeconomic context where highbrow cultural knowledge may not be valued or attainable can result in being perceived as less knowledgeable or intelligent overall, which in turn can create barriers to entry into institutions and occupations that promote mobility and economic well-being (e.g., DiMaggio & Mohr, 1985; Lamont, 1992; Lizardo, 2013).

More research is clearly needed to understand the extent of cultural capital's causal effects on life chances. All the outcomes in this experiment were participant-reported and hypothetical, including our hiring decision measure—I assessed participants' stated likelihood of hiring the target for a high-paying job, imagining that they were in fact hiring managers at a prestigious company. Furthermore, I sampled university undergraduates for this study and not individuals with actual authority, though the fact that I observed these effects among a population noted for having more liberal, egalitarian beliefs relative to those of the general public is noteworthy (Hanel & Vione, 2016; Henrich et al., 2010). Finally, the experimental procedure may have not been particularly representative of how interpersonal judgments transpire in real decision-making situations—it is unlikely that hiring managers and other

important gatekeepers would draw conclusions about someone's competence and deservingness based on an audio clip of them discussing their tastes in music and movies.

In light of these concerns, I sought to conceptually replicate these findings in a more naturalistic setting in Study 5-an audit experiment wherein I sent emails to admissions counselors at colleges and universities across the U.S. posing as a high school student who was potentially interested in applying for undergraduate admission (Milkman et al., 2015; Rivera & Tilcsik, 2016; Thornhill, 2019). A portion of the email briefly mentioned extracurricular activities, in which the student signaled either highbrow or popular tastes. I additionally obtained data regarding the socioeconomic standing of the colleges and universities (i.e., sticker price), as well as other characteristics of both the university (e.g., graduation rate, selectivity) and each counselor (e.g., perceived race, gender). For my primary dependent measures, I tracked whether the counselor responded to the student's inquiry, and among those who did, the overall level of effort the counselor expended in their response. If, as I found in Study 4, individuals expressing stereotypically upper-class preferences in cultural products (e.g., action movies, pop music) are perceived by others as higher in status and competence, I would expect these individuals to face fewer barriers to entry into customarily upper-class institutions, such as prestigious universities. As such, I hypothesized that students engaging in traditionally highbrow extracurricular activities would be met with more responsiveness and effort from admissions counselors compared to those engaging in traditionally popular activities.

#### **Study 5: Cultural Tastes and Barriers to Entry in Traditionally Upper-Class Institutions**

Schools signify some of the greatest sources of economic mobility while also representing fertile ground for the examination of wealth disparities (Khan, 2012b). Despite significant demographic changes in the last 50 years that, on the surface, suggest a shift toward greater parity (e.g., women outperforming men in higher education, historically high rates of Black and Latinx students attending Tier-1 colleges; Buchmann et al., 2008; Espenshade & Radford, 2009), the students at these schools are on average richer than ever and their families possess an increasingly disproportionate amount of wealth (Bowen et al., 2006, Golden, 2006). On the whole, colleges and universities remain considerable drivers of inequality while operating under the guise of meritocracy, aiding students from privileged backgrounds in obtaining credentials and building mobility-enhancing social networks. In this dissertation, we argue that cultural capital is one crucial mechanism that enables this process (e.g., Bennett et al., 2009; Bourdieu, 1984; De Graaf et al., 2000; DiMaggio & Mohr, 1985).

However, research examining the influence of social class identity and cultural capital at the entry points to higher educational settings is scant. One recent investigation tested the hypothesis that school selection processes related to tracking decisions (i.e., grouping students based on achievement level) often promote the reproduction of inequality (Batruch et al., 2019). In two studies, participants (students playing the role of teachers) decided which educational track was ideal for a student whose social class was manipulated via class-consistent signals (i.e., name, parental occupation, and extracurricular activities). Although students' achievement was identical, participants considered a lower track more suitable for lower-class than upper-class students.

Though these findings are suggestive of the notion that cultural capital influences educational admissions outcomes, this research along with a plethora of related work on identity-based discrimination admission to organizations and educational institutions was focused specifically on decision-making at *gateways*—points of entry into organizations, communities, or

institutions (Attiyeh & Attiyeh, 1997; Batruch et al., 2019; Bertrand & Mullainathan, 2004; Kolpin & Singell, 1996; Moss-Racusin et al., 2012; Pager et al., 2009; Steinpreis et al., 1999). Critical to my argument here is that treatment based on valued cultural signals manifests before individuals formally apply to higher educational institutions. Unlike formal admissions decisions, which are typically characterized by codified procedures, pathways have fewer regulations and are far more informal, resulting in a setting where less conscious forms of bias may be especially prevalent (Clark & Corcoran, 1986; DiPrete & Eirich, 2006; Gilbert & Hixon, 1991; Milkman et al., 2015).

Though little research has examined this assertion directly, findings from a recent field experiment on racial discrimination during the pre-application process for advanced degree programs provides suggestive evidence as to the barriers faced by disadvantaged students at this stage in an academic career (Milkman et al., 2015). In this experiment, professors were contacted by fictitious prospective students pursuing a discussion about research opportunities before applying to a doctoral program. Names of students were randomly assigned to signal one of five racial groups (White, Black, Latinx, Indian, or Chinese); messages were otherwise identical. The authors found that, in this context, faculty were significantly more responsive to White students than to students of color. Given that cultural capital is a highly racialized construct (e.g., traditionally White artforms such as classical music are perceived as more "highbrow" than those traditionally associated with communities of color, such as hip-hop music), the results of this study are suggestive of the fact that signals of popular cultural capital may engender similar responses.

Taken together, the findings reviewed above suggest that individuals signaling lowerclass cultural capital may experience considerable obstacles along pathways to higher educational institutions. As a final study in this dissertation, then, I explored this notion in the context of an audit study in which I emailed admissions counselors at colleges and universities across the U.S., ostensibly as prospective students inquiring about application information (Thornhill, 2019). The information contained in the emails signaled either highbrow or popular cultural capital in the form of extracurricular activities (e.g., Batruch et al., 2019), allowing the test of the hypothesis that expressed cultural capital in a naturalistic setting will have predictable outcomes at a key stage in a student's academic career. Furthermore, in light of research and theory suggesting that discriminatory beliefs and behaviors may be more prevalent in wealthier settings and occupations (e.g., Goldin, 2013; Milkman et al., 2015), I will also explore whether evidence of bias on the part of admissions counselors in favor of students expressing upper-class cultural capital is more pronounced in more affluent (i.e., more expensive) institutions.

#### Method

#### **Participants**

I obtained my sample of colleges and universities from a publicly available dataset compiled by Opportunity Insights—a policy-oriented research institute—for a study on the role of colleges in intergenerational mobility (Opportunity Insights, 2015). This data file contains every higher education institution in the U.S., along with both academic and economic information for each school (more on these variables below).

I filtered my list to only include selective public and private colleges and universities; other college types were not included (e.g., community and for-profit colleges). This yielded a total of 1,130 institutions. I then instructed research assistants to navigate to each institution's admissions website and select an admissions counselor to contact. Given that my emails would

be ostensibly sent by a high school student from the San Francisco Bay Area (see Procedure), when possible, I selected admissions counselors whose territory included this area. If counselors were not assigned a territory, our assistants selected one at random. Schools with no admissions counselors listed on the website (i.e., only a general email was included) were excluded from my sample for consistency. Finally, in 24 cases, I received auto-replies communicating that either the email addresses no longer existed or that the counselor was away on leave, thus resulting in a final sample of 949 counselors (644 from private institutions, 305 from public institutions).

#### Procedure

An email was sent to my sample of admissions counselors, ostensibly written by a high school student inquiring about applying to the college or university (Thornhill, 2019). Counselors were randomly assigned to one of four cells in a 2 (gender: female or male)  $\times$  2 (cultural capital signaled: popular or highbrow) between-subjects experimental design. Following from research suggesting that gender can be a barrier to entry into certain academic contexts (e.g., Cheryan et al., 2017; Milkman et al., 2012), the perceived gender of the inquiring student was manipulated by varying the student's name across conditions—the email was sent by either Jessica Huston or Zach Lancaster. More central to our main hypotheses, I manipulated signaled cultural capital by randomly assigning counselors to receive an email containing references to either highbrow or popular extracurricular activities. These extracurricular activities were pre-tested in a separate sample and confirmed to elicit class-consistent associations. All other information in the email was held constant. The full text of the emails for both experimental conditions is included in Appendix C.

#### Measures

#### **Dependent Measures**

My key outcome measure for this experiment was whether the counselor responded to the email inquiry. Overall, 639 out of 949 (67%) of counselors responded. As a secondary outcome measure, for counselors who did respond, I had two independent coders rate the amount of effort they put forth in their reply on a scale from 1 (*minimal effort*) to 4 (*considerable effort*). In making their ratings, coders were instructed to attend to two factors: (1) personalization (the extent to which counselors referenced personal details and worked to address the points included in the original email, as opposed to copying and pasting a standard response) and (2) informativeness (the extent to which the counselor provided valuable information that would aid the student in their application process). Based on guidelines by Cicchetti (1994), my coders exhibited good reliability (ICC = .73); thus, their ratings were averaged into a single effort score (M = 2.7, SD = 1.05).

### College or University SES

To probe for interactions between my cultural capital signaling manipulation and collegelevel economic characteristics I relied on the Opportunity Insights dataset to identify the "sticker price" of the college or university, defined as the average annual cost of attendance (M =\$24,563, SD = \$13,182). Though sticker price does not reflect the "net price" (i.e., the total cost after financial aid and other scholarships are taken into account), it is more strongly related to the overall socioeconomic composition of the college or university's student body and, thus, captures how cultural and socioeconomic characteristics intersect to influence institutional practices (e.g., Jacob et al., 2018; Nurnberg et al., 2012). **Control Variables**  To identify demographic characteristics of the counselors in my sample, I had two research assistants attempt to code each counselor's perceived gender, race, and approximate age (using ten-year age ranges; e.g., 20-29, 30-39, and so on), based on publicly available online photographs—profile pictures of the admissions counselors listed on the colleges' websites. If the counselor did not have a profile picture, I used a Google search to locate a picture of the counselor through alternative sites such as LinkedIn. The demographic characteristics of the counselors and selected characteristics of the institutions are displayed in Table 4. Interrater reliabilities for gender and race approached 100% (ICCs = 1.00 and .96, respectively) and was highly reliable for age (ICC = .88).

I also identified several relevant institution-level covariates from the Opportunity Insights dataset—specifically, indices of institutional selectivity, overall enrollment figures, enrollment figures by student race, and academic performance (see Table 4 for descriptive statistics for these variables). Given the strong relationship between institutional selectivity and several educational and administrative practices in educational contexts (e.g., campus support, academic and extracurricular expectations; Pascarella et al., 2006), I included Barron's Selectivity Index scores in our analyses. This index computes an overall institutional selectivity score for each institution based several inputs: median SAT/ACT scores and the percentage of first-year students above certain scores, the percentage of first-year students within specific quintiles of their high school graduating class, minimum class rank and grades needed for admission, and percentage of applicants admitted. Though the full scoring system identifies nine categories of selectivity, given that I was only interested in selective college and universities for this study, the institutions in my sample ranged from 1 (*elite*) to 5 (*selective*). The scores were recoded such that higher scores indicated greater selectivity (M = 2.48, SD = 1.05).

To control for the overall size of the college of university, which would likely affect the number of applicants and counselor responsiveness and effort, enrollment statistics were collected from the National Center for Education Statistics' Integrated Postsecondary Education Data System (U.S. Department of Education, 2014). From the IPEDS data, I pulled the total enrollment for each institution for the fall 2013 semester (includes both full- and part-time; median = 2,407), as well as the proportion of the student body who identify as White (M = 65%, SD = 17%). This latter variable is particularly meaningful in the context of people's strong associations between race and class (e.g., Brown-Iannuzzi et al., 2017, 2019; Penner & Saperstein, 2008), as well as the fact that the division between popular and highbrow cultural capital is highly racialized (e.g., Lareau & Horvat, 1999; Roscigno & Ainsworth-Darnell, 1999), and thus was needed as a control variable in my analyses.

Lastly, considering recent sociological research revealing that differences in cultural capital may give rise to differences in both expected and actual academic performance (e.g., Hansen & Mastekaasa, 2006; Lareau, 1987; Wildhagen, 2009), I also controlled for institution-level academic performance in my analyses. This was operationalized as graduation rate—a widely accepted measure of the academic performance of educational institutions (e.g., Ferris et al., 2004; Heckman & LaFontaine, 2010). In this case, the dataset contained the percentage of students graduating within 150% of normal time for every college and university in 2013 (M = 58%, SD = 17%).

#### Results

#### **Analytic Strategy**

To test my primary hypothesis that counselors would be more likely to respond when the student signaled highbrow cultural capital compared to when they signaled popular cultural capital, I examined the main effects of cultural capital and gender conditions, as well as their interaction, on the likelihood of responding in a multiple logistic regression framework. In addition, I used a multiple linear regression framework to test the effects of these variables on the degree of effort in the email responses among those who did reply. Finally, in an exploratory fashion, I also probed for significant interactions between my university-level socioeconomic index (i.e., sticker price) and my manipulations on both response rate and effort.

#### **Response Rate**

The full results of my logistic regression analyses are displayed in Table 5. I first tested my primary hypothesis that response rates would be higher for students signaling highbrow cultural capital compared to those signaling popular cultural capital, as well as the possible effect of gender and the cultural capital  $\times$  gender interaction (Model 1). The results of this analysis supported this prediction—71.0% of counselors in the highbrow capital condition responded to the student's email, compared to 64.7% of counselors in the popular, b = 0.470, 95% CI = [0.078, 0.866], z = 2.339, p = .019, OR = 1.600. I also observed a significant effect of gender, with counselors being significantly more likely to respond to the email when it was perceived to be sent by a male student (70.9%) compared to when it was perceived to be sent by a female student (64.3%), b = 0.468, 95% CI = [0.091, 0.848], z = 2.425, p = .015, OR = 1.597. The interaction between the two factors was not significant, b = -0.342, 95% CI = [-0.901, 0.217], z = -1.199, p = .231, OR = 0.711.

I also probed for significant interactions between cultural capital condition and the sticker price of the college or university (see Table 5, Model 2). To this end, I first standardized my sticker price variable before adding it to my model along with our cultural capital, student gender conditions, and all possible interactions between these variables. This analysis showed, firstly, that the main effects of my manipulations held after adding sticker price and the three interaction terms to the model. Secondly, I also observed a significant interaction between my cultural capital manipulation and sticker price, b = 0.469, 95% CI = [0.055, 0.888], z = 2.210, p = .027, OR = 1.598 (see Figure 7). A simple slopes analysis of this effect revealed that there was no significant relationship between sticker price and likelihood of responding to the email in the popular condition, b = -0.027, 95% CI = [-0.302, 0.274], z = -0.193, p > .250, OR = 0.973, whereas there was a significant positive relationship between sticker price and likelihood of responding in the highbrow condition, b = 0.441, 95% CI = [0.133, 0.760], z = 2.771, p = .006, OR = 1.555. This indicates that, when a prospective applicant was signaling upper-class cultural capital, representatives of more expensive institutions were more likely to respond to the email than were representatives of less expensive institutions, whereas this discrepancy did not exist when the applicant was signaling lower-class cultural capital. The interactions between gender and all other variables, including the three-way interaction between cultural capital, gender, and sticker price, were not significant (ps > .248).

As the last step in my logistic regression analysis, I added all of my covariates to the model. As can been seen in Table 5 (Model 3), the main effects of the cultural capital and gender manipulations, as well as the significant interaction with sticker price, remained significant after doing this. I also found a significant effect of graduation rate such that counselors from colleges and universities with higher graduation rates were, on the whole, more likely to respond than

those from colleges and universities with lower graduation rates, b = 0.348, 95% CI = [0.059, 0.640], z = 2.353, p = .019, OR = 1.416.

### **Response Effort**

As for response rate, the full results of my logistic regression analyses are shown in Table 6. I first tested my primary hypothesis that response effort would be higher for students signaling upper-class cultural capital (e.g., being a member of the high school symphonic band, going sailing on weekends) compared to those signaling lower-class cultural capital (e.g., being a member of a high school rock band, playing pick-up soccer on the weekends), as well as the possible effect of gender and the cultural capital × gender interaction (Model 1). The results of this analysis supported this prediction—counselors put forth greater observer-rated effort in the highbrow condition (M = 2.87, SD = 1.00) compared to the popular condition (M = 2.53, SD = 1.06), b = 0.359, 95% CI = [0.118, 0.600], t = 2.921, p = .004. Neither the main effect of gender, b = 0.143, 95% CI = [-0.090, 0.376], t = 1.203, p = .229, nor the cultural capital × gender interaction, b = -0.023, 95% CI = [-0.350, 0.303], t = -0.139, p > .250, were significant.

Unlike for response rate, I did not observe a significant interaction between sticker price and our cultural capital condition, b = -0.015, 95% CI = [-0.260, 0.230], t = -0.122, p > .250(Model 2). The main effect of sticker price, b = -0.031, 95% CI = [-0.205, 0.144], t = -0.346, p >.250, and the three-way interaction between sticker price, cultural capital condition, and gender condition, b = 0.003, 95% CI = [-0.322, 0.327], t = 0.017, p > .250, were also not significant.

As the last step in this analysis, I added all my covariates to the model. As can been seen in Table 6 (Model 3), the main effect of cultural capital remained significant. Though not explicitly hypothesized, I again observed other noteworthy effects. I found a significant effect of counselor age, such that older counselors put forth less effort in their email responses than did younger counselors, b = -0.144, 95% CI = [-0.224, -0.065], t = -3.559, p < .001. I also found a positive, significant effect of the percentage of the college or university's student body that identifies as White—the greater the proportion of White students, the more effort was put forth by the counselor, b = 0.177, 95% CI = [0.082, 0.272], t = 3.669, p < .001. Finally, I observed a significant negative relationship between the college or university's total enrollment and response effort. Counselors from larger institutions in terms of enrollment put forth less effort in their responses, b = -0.157, 95% CI = [-0.264, -0.050], t = -2.890, p = .004.

#### Discussion

In my last study, when receiving highbrow cultural signals suggesting that a student may be from an upper-class background, admissions counselors at colleges and universities were more likely to respond to inquiries from this student—and put forth greater effort in doing so compared to when receiving highbrow cultural signals. This was especially true of counselors working in more expensive institutions (though this effect did not replicate for response effort).

These findings extend the results of the previous experiment in significant ways. They demonstrate that the effects of signaling cultural capital extend to observable behaviors with tangible consequences (e.g., differences in application likelihood) rather than just self-reported attitudes or behavioral intentions, with a participant sample unbiased by the awareness of researcher observation. Second, my results shed light on a proximal process by which individuals who do not possess the types of cultural resources valued in many higher education institutions face barriers to entry to these institutions, and in turn, to achieving upward mobility. We note that negative experiences with points of first contact at colleges and universities likely shape

assessments of one's own academic merit and, ultimately, whether the student decides to apply (Correll, 2001; Correll, 2004; Hoxby & Avery, 2012). If students who do not possess highbrow cultural capital are ignored at a higher rate than those who do, they may be more likely to be discouraged from applying for admission and/or disadvantaged in navigating the admissions process, having received less guidance.

I also observed other effects not explicitly part of my primary hypotheses, including male students being more likely to receive a response than female students, paralleling previous work revealing preferential treatment towards male students in collegiate contexts (e.g., Attiyeh, & Attiyeh, 1997; Milkman et al., 2012, 2015; Moss-Racusin et al., 2012). Note, however, that most previous research has focused on gender bias specifically in STEM or post-graduate educational settings (e.g., Attiyeh, & Attiyeh, 1997; Cheryan et al., 2017; Milkman et al., 2015). The findings presented here suggest that preferential treatment towards male students arises in the undergraduate context and with regard to non-STEM fields (the student in the email was portrayed as being interested in sociology). Representatives from institutions with higher graduation rates, and representatives who were older, from larger institutions, or from institutions with a less predominantly White student population dedicated less effort in their email responses than those who were younger, from smaller institutions, or from institutions with a larger proportion of White students.

#### **General Discussion**

Glaring class boundaries seen in highly unequal societies such as the U.S. have created separate class-based cultures with distinct patterns of cognition, affect, and social behavior (see Kraus et al., 2012 for a review). Class shapes distinct self-concepts (e.g., Snibbe & Markus, 2005; Stephens, Markus, et al., 2012; Stephens et al., 2007; Weininger & Lareau, 2009), patterns of social perception and explanation (e.g., Dietze & Knowles, 2016, 2021; Grossmann & Varnum, 2011; Kraus et al., 2010; Kraus et al., 2009), interpersonal emotion and behavior (e.g., Piff et al., 2010; Piff, Stancato, Martinez, et al., 2012; Stellar et al., 2012), ethical behavior (e.g., Piff, Stancato, Côté, et al., 2012), and moral judgment (e.g., Côté et al., 2013; Horberg et al., 2009). The material conditions of social life shape social cognitive tendencies.

In the five studies reported here I examined class differences that exist further upstream, exploring the possibility that class-related cultural symbols and practices, in and of themselves, are embodied expressions of socioeconomic inequality and create and preserve class divisions. Building from the formative work of Bourdieu (1984) outlining class-related lifestyles and cultural spaces (termed the habitus), in this dissertation, I undertook a social-psychological exploration of the antecedents and consequences of cultural signaling, as well as how such tendencies create and perpetuate socioeconomic disparities.

In the first three studies, I tested the hypothesis that the preference for "highbrow" tastes for cultural products such as music and films is a strategic and context-sensitive behavior (e.g., Berger & Heath, 2008; Han et al., 2010). In Study 1, I found that individuals higher in subjective SES placed greater prominence on having "good taste" as a central feature of one's symbolic identity relative to those lower in subjective SES, for example stressing the importance of wearing clothes and participating in social activities that identify one as having highbrow tastes. No such pattern was found for internal identity, offering preliminary evidence as to the explicit and strategic nature of cultural capital signaling. Study 2 conceptually replicated this finding using an experimental design (Griskevicius et al., 2007), showing that upper-class participants express greater interest in classical music relative to pop music when imagining choosing between the two styles of music in the presence of others, whereas no such gap existed when imagining making the decision in private.

In Study 3, I tested the hypothesis that upper-class participants would be more likely to express preferences for highbrow cultural capital when in the presence of another person from a similarly affluent background. I did not, however, find support for this hypothesis. I instead found the opposite effect—upper-class participants were more likely to express preferences for highbrow food and movies when imagining an interaction with a lower-class target compared to an upper-class target or where no information was provided about the target, perhaps due to the motivation to maintain a position of identity divergence. My main effect of target social class was revealing: Participants expressed preferences for cultural products that stereotypically match the perceived social class of the target individual—they expressed greater preference for highbrow cultural products when imagining an interaction with a lower-class target and reduced preference for highbrow products when imagining an interaction with a lower-class target. This pattern of results suggests that people assume particular cultural preferences based on one's social class membership—an interpretation that set the stage for my final two studies.

In Study 4, I sought to explain why upper-class individuals might be motivated to signal their cultural capital so overtly, as well as demonstrate how these calculated signaling processes promote inequality of opportunity through differential perceptions of merit. This study was a labbased experiment in which participants listened to audio clips of a target individual describing their tastes in music and movies before rating the target on several factors. Participants perceived a target signaling highbrow cultural capital as higher in social class compared to a target signaling popular cultural capital, illustrating how such perceptions unfold in daily life (indeed, this is why cultural signals serve such a vital communicative function, particularly in upper-class communities; Kraus et al., 2017; Veblen, 1899/1973). In addition to perceiving highbrow targets as wealthier, participants in Study 4 judged them as more competent and, assuming the role of a hiring manager, expressed greater interest in hiring them for a prestigious managerial position.

In Study 5, we transported these findings into a real-world context of decisive significance to the life chances of teens and young adults: college admissions. In this study we tested the hypothesis that students who signal highbrow cultural capital would receive more support and less resistance from key gatekeepers at higher educational institutions compared to students signaling popular cultural capital. We used an audit experiment in which emails were sent to admissions counselors at colleges and universities across the U.S., ostensibly from a high school student seeking application guidance (see Thornhill, 2019). Inquiring students signaled their cultural capital in their description of their extracurricular activities—for example, in the highbrow condition, the student was described as playing trombone in a school symphonic band, whereas in the popular condition, they were described as playing guitar in a school rock band. Counselors were more likely to respond to students signaling highbrow extracurricular activities, and among those who did respond, expended greater observer-rated effort in their responses. Furthermore, the former effect was moderated by the sticker price of the college or university an indicator of the socioeconomic status of the institution (e.g., Jacob et al., 2018; Nurnberg et al., 2012)—such that response rates were higher for schools with higher sticker prices compared to schools with lower sticker prices when the student was communicating highbrow cultural capital, whereas this difference did not exist when the student was communicating popular cultural capital (though it should be stated that we did not observe this interaction for response

effort, nor did we observe a conceptually comparable effect in Study 4, calling the robustness of this effect into question).

Taken together, we have provided a psychosocial account of the intrapersonal, interpersonal, and societal ramifications of cultural capital signaling—a poorly understood yet consequential process. These studies provide, to our knowledge, the first comprehensive, datadriven representation of how class-related cultural practices both arise from and generate class divisions between people from different places on the social class hierarchy. In our first studies, we offered targeted insight into precisely how cultural capital helps constitute the identities of upper-class individuals—something only speculated by past theorizing (e.g., Beckert, 2003; Lamont, 1992)—and, accordingly, what types of situations trigger the outward display of cultural capital. In our last two studies, we document specific linkages between cultural signals and fundamental aspects of social cognition (e.g., Fiske et al., 2002, 2007), as well as real-world behaviors with significant bearing on socioeconomic opportunity. Finally, we illuminated these processes across multiple methodologies (i.e., correlational, lab-based experiments, field experiments) and participant samples (i.e., nationwide, university students, and admissions counselors), and while accounting for conceptually-relevant covariates (e.g., gender, race).

#### Implications

Our findings have many implications for the study of social class and inequality. Perhaps the most striking implication of our first studies concerns the shaping of cultural capital signaling in private versus public settings. It has been postulated that the historical establishment of a "cultural hierarchy" (i.e., the perceived cultural supremacy of highbrow cultural tastes and preferences) was central to upper-class identity formation (Beckert, 2003; Levine, 1990). In fact, Khan (2012a) has made the case that the very definition of what it means to be upper-class contains a particular set of tastes, values, and ways of being (see also DiMaggio, 1982). Given the preeminence of these cultural markers to upper-class identity, one might expect that these tastes and preferences may get internalized and become a fixture in both private and public aspects of identity, much as distinctive cultural consumption practices can be entrenched aspects of Black collective identity, for example (e.g., Banks, 2010; Lamont & Molnar, 2001). However, the pattern of results from Studies 1 and 2 suggest a different process at play—that the stated tastes and preferences for highbrow cultural products by upper-class individuals are limited to settings in which these preferences are observable by others. The outward signaling of highbrow cultural capital may not be an expression of one's "true" internal tastes and preferences, but rather a strategic process aimed at fostering recognition as a member of the upper classes who possesses the "right" set of cultural practices.

Our findings from Studies 4 and 5 highlight the persistent role that cultural capital signaling plays in accessing key pathways to educational opportunities and lucrative occupations. Our study provides direct evidence that college and university admissions counselors, as well as research participants assuming the role of hiring manager, discriminate based on social class signals when making hiring and admissions decisions. Importantly, our experimental designs assure that this effect is net of any self-selection into (or out of) these careers. Given the fact that higher educational prospects and managerial positions within firms and companies serve as stepping stones to elite roles, including influential positions in law, business, government, and medicine, these findings have implications not only for the proximal distribution of economic resources but also for differential access to broader symbolic and political power in society.

Furthermore, unlike previous research that has explored discriminatory actions at key gateways and pathways to mobility (e.g., Bertrand & Mullainathan, 2004; Milkman et al., 2015; Rivera & Tilcsik, 2016), our findings provide evidence as to the mechanism driving these biases. Specifically, in contrast to other research which has conceptualized the contribution of person-institution fit in influencing diversity and inclusion as a function of self-construals (e.g., Phillips et al., 2020; Stephens, Fryberg, et al., 2012; Stephens, Markus, et al., 2012; Stephens et al., 2014; 2019), values (e.g., Harackiewicz et al., 2014), motivations (e.g., Jury et al., 2015; Sommet et al., 2015), or social connections and support (e.g., Jenkins et al., 2013; Stebleton et al., 2014), we suggest that a fundamental mechanism is the negative stereotype that lower-class individuals are less competent than upper-class individuals (Durante et al., 2017; Fiske et al., 2002; Volpato et al., 2017), and here we have shown that routinely-observed, class-relevant signals related to tastes and preferences are sufficient to trigger these perceptions.

Finally, our research empirically demonstrates that social class signals related to cultural capital constitute a powerful basis of candidate evaluation, offering an experimental demonstration of institutional classism (see also Rivera & Tilcsik, 2016). Although qualitative research has shown that elite institutions exhibit bias toward admitting those from elite backgrounds (e.g., Ho, 2009; Rivera, 2016; Stevens, 2009), most quantitative research within the fields of economics and sociology assumes that social class shapes employment and educational outcomes through disparities in qualifications (see Farkas, 1996). Moreover, while some experimental research has highlighted the role of social class signals in professional outcomes (e.g., Jackson, 2009; Kraus & Mendes, 2014), most has failed to verify the independent effect of these signals over and above educational attainment (though see Rivera & Tilcsik, 2016, for an exception). By focusing our efforts on undergraduate admissions in Study 5, I have provided the first quantitative demonstration that college and university admissions counselors—among the most impactful of gatekeepers in terms of regulating access to mobility opportunities—directly discriminate based on applicants' cultural capital, holding constant the effect of educational attainment and academic field of interest.

#### **Limitations and Future Directions**

These present studies possess several limitations. Firstly, with the exception of Study 5, all of the studies relied upon hypothetical scenarios (e.g., a hypothetical decision-making task regarding music preference in Study 2, workplace scenarios in Studies 3 and 4) and self-report measures (e.g., behavioral intentions around food and movie preferences in Study 3, personality ratings of a target in Study 4). Though it is noteworthy that we observed our effects in the context of such methods—particularly in Studies 1 and 2, in which we uncovered exceedingly overt, self-reported demonstrations of the tendency to only express interest in highbrow cultural capital in public settings but not private ones among upper-class individuals—the support we provide for our proposed model regarding the highly strategic nature of cultural capital expression should be considered preliminary until more objective, behavioral indicators in more ecologically valid situations are evaluated (see Berger & Heath, 2008; Griskevicius et al., 2010; Durante et al., 2010).

The participants in our studies also presented a somewhat restricted range in terms of social class, as both the extremely poor and extremely wealthy were largely unrepresented. Much of the sociological theory regarding cultural capital has highlighted the importance of studying "elites," as it is these richest individuals that not only place greater prominence on cultural capital, but also possess disproportionate control over or access to economic resources and

political clout (Atkinson & Piketty, 2007; Khan, 2012a). It is conceivable that our inability to find support for our hypothesis that upper-class individuals would be more likely to signal highbrow capital in the company of similarly privileged individuals was due to the fact that upper-class group identity is less potent as one shifts towards the middle of the socioeconomic spectrum, rendering the class membership of an interaction partner as a less forceful elicitor of class-consistent signaling behaviors (e.g., Aries & Seider, 2007). Though the fact that we obtained our patterns of results in samples that mostly ranged from lower-middle to upper-middle class is perhaps indicative of even more sizeable effects among "elites," it is nonetheless necessary to gain greater understanding of how these processes operate in abundantly wealthy circles. This would not only allow us to illuminate the proximal aspects of identity signaling in wealthy communities but also more downstream outcomes such as how cultural capital is exploited towards social and political influence (e.g., Becker et al., 2017; Lizardo, 2013).

Independent of these limitations, a few other directions for future social scientific research should be considered. One notable pursuit is the exploration of intersectionality in cultural capital research. In Study 5, we examined whether admissions counselor responsiveness to students signaling different levels of cultural capital may depend on the student's gender—a possibility our data did not support. However, other individual or group-based differences also likely weigh heavily into cultural capital signaling processes, as well as perceptions of said signals. Perhaps the most prominent of these factors is racial identity, as it has long been established that cultural capital is a highly racialized construct, with some suggesting that highbrow cultural capital is synonymous with Whiteness (e.g., Lareau & Horvat, 1999; Wallace, 2018). Future research should seek greater comprehension of the intersecting effects of race and class in producing cultural capital signaling (e.g., understanding how cultural capital factors into identity in poor versus wealthier Black or Latinx communities).

Another vital direction for further research is to continue to elaborate on how different measures of social class predict cultural capital signaling behaviors and perceptions. In Study 1 I found that subjective SES positively predicted cultural capital symbolization-the outwardfacing aspect of one's identity-whereas educational attainment negatively predicted this outcome (though this latter outcome was not replicated in the subsequent experimental studies). Income was not related to any aspect of cultural capital signaling in any of my studies. One potential reason for these discrepancies could be my measurement of cultural capital, which largely concerned self-reported tastes and preferences rather than participation in cultural activities. It has been argued that active participation in cultural activities and events is constrained to a greater extent by income, whereas more subjective assessments of social class rank may play a greater role in the development of tastes and preferences (Yaish & Katz-Gerro, 2012). More broadly, determining whether the need for others to recognize one's status is greater for individuals high in subjective SES relative to other indices of social class, and whether this in turn predicts cultural signaling and participation, would greatly aid to our understanding of the psychological underpinnings and differential motivations of those high in subjective versus objective social class (Kraus et al., 2012).

### Conclusion

Epidemiological, health, and laboratory data are revealing that, as inequality has skyrocketed in recent years (OECD, 2014; Piketty & Saez, 2014), it has become an increasingly dire problem for the health and well-being of individuals and societies (Wilkinson & Pickett, 2006, 2010). In addition to these macro-level trends, recent social psychological findings have

shed light on decades-old sociological observations regarding how economic inequality is experienced at the interactional level as the communication and perception of social class signals (Becker et al., 2017; Bourdieu, 1984; Kraus & Keltner, 2009; Kraus et al., 2017; Veblen, 1899/1973). The research presented in this dissertation provides a critical contribution to this tradition by detailing the extent to which upper-class cultural capital is a defining feature of class-based group dynamics, showing that: 1) cultural capital is a central facet of the public identities of upper-class individuals and is strategically deployed in social situations, and 2) through its inextricable link to perceptions of competence, these signals can become the basis of exclusionary behavior that can limit the social and economic opportunities of those who do not possess this type of capital. Thus, these findings not only support the assertion that cultural signals represent a fundamental way in which economic inequality is experienced day-to-day between individuals (Kraus et al., 2017), but also reveal that such signals can be potent sources of inequality maintenance, legitimization, and expansion (see also Durante & Fiske, 2017). I hope that these findings will provide a foundation for more direct assessment of the complex interplay between macroeconomic forces and the interactional experience of social class hierarchies.

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# Table 1a

De	escriptive	<i>Statistics</i>	for	Continuous	V	'ariał	oles	in	Study	1
	1								~	

Variables	Min.	Max.	М	SD	Skewness	Kurtosis
Measures of social class						
Subjective SES	1	10	4.78	1.77	.09	55
Covariates						
Age	19	72	35.57	12.99	1.01	04
Conservatism	1	7	3.14	1.54	.48	51
Outcome variables						
CCC – Internalization	1.20	7.00	5.06	1.20	34	47
CCC – Symbolization	1.00	7.00	4.34	1.43	43	56

*Note*. CCC = Cultural capital centrality.

# Table 1b

Free	mencies	for	Categoric	al V	ariahles	in	Study	1
rieu	juencies	וטן	Culegonic	u v u	nuoies	in	Sinuy	1

Variables	n	%
Measures of social class		
Childhood total household income	N = 250	
< \$15,000	25	10.0
\$15,001 - \$25,000	30	12.0
\$25,001 - \$35,000	35	14.0
\$35,001 - \$50,000	54	21.6
\$50,001 - \$75,000	45	18.0
\$75,001 - \$100,000	31	12.4
\$100,001 - \$150,000	18	7.2
> \$150,000	12	4.8
Current total household income	N = 251	
< \$15,000	36	14.3
\$15,001 - \$25,000	24	9.6
\$25,001 - \$35,000	49	19.5
\$35,001 - \$50,000	52	20.7
\$50,001 - \$75,000	42	16.7
\$75,001 - \$100,000	25	10.0
\$100,001 - \$150,000	20	8.0
> \$150,000	3	1.2
Education level	N = 253	
Did not finish high school	1	0.4
High school graduate or some college	100	39.5
College graduate	119	47.0
Postgraduate degree	33	13.0
Covariates		
Gender	N = 253	
Female	137	54.2
Male	116	45.8
Ethnicity	N = 253	
White	197	77.9
Asian/Asian American	22	8.7
Black/African American	16	6.3
Latinx	11	4.4
American Indian/Alaska Native	2	0.8
Other	5	2.0

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Zero-order Correlations between Measures of Social Class, Covariates, and Cultural Capital Centrality

	Variables	1	2	3	4	5	6	7	8	9	10
1.	Age	-									
2.	Gender	<b>.11</b> <sup>†</sup>	-								
3.	Ethnicity	<b>18</b> **	.03	-							
4.	Conservatism	.17**	<b>11</b> <sup>†</sup>	.00	-						
5.	Childhood household income	32***	.01	13*	02	-					
6.	Current household income	10	.05	.01	<b>.</b> 11 <sup>†</sup>	.40***	-				
7.	Education level	04	.03	05	06	.20**	.14*	-			
8.	Subjective SES	08	01	.01	.06	.39***	.51***	.24***	-		
9.	CCC - Internalization	.01	02	.02	09	.05	01	03	.06	-	
10	. CCC - Symbolization	<b>18</b> **	.07	.16*	<b>12</b> <sup>†</sup>	.10	.06	<b>11</b> <sup>†</sup>	.19**	.65***	-

*Note.* CCC = Cultural capital centrality.  $^{\dagger}p < .10, *p < .05, **p < .01, ***p < 0.001.$ 

Linear Regression Model Predicting Cultural Capital Symbolization from Education Level and Subjective SES, Controlling for Relevant Covariates

Independent Variables	<i>B</i> (S.E.)	95% CI	β	t	р
Constant	3.91(.27)	3.38, 4.44		14.50	<.001
Age	20(.09)	37,02	14	-2.19	.029
Gender	.22(.17)	12, .57	.08	1.29	.197
Ethnicity	.40(.21)	01, .81	.12	1.92	.056
Conservatism	16(.09)	34, .01	.11	-1.84	.067
Education level	25(.09)	43,08	18	-2.87	.004
Subjective SES	.32(.09)	.15, .50	.23	3.64	<.001
Model Statistics					
$R^2$	.125				
Adjusted $R^2$	.104				
F(df1, df2), p value	5.83(6, 245), <i>p</i> < .001				

School demographics	N	М	Mdn
Barron's Selectivity Index			
5 Elite	66		
4 Highly selective	83		
3 Selective	216		
2 Selective	461		
1 Selective	123		
Sticker price (tuition + fees), 2013		\$24,563	
Graduation rate, 2013		58.0%	
Total enrollment			2,407
Racial background of school population			
American Indian			0.03%
Asian			2.0%
Black			6.1%
Latinx			6.0%
Pacific Islander			0.1%
White			69.2%
Multiracial			2.5%
Unknown			2.9%
Counselor demographics	%		
Gender identification			
Female	61.2%		
Male	38.8%		
Racial background			
Asian	3.5%		
Black	11.9%		
Latinx	10.7%		
Pacific Islander	0.04%		
White	71.8%		
Unknown/Multiracial	1.6%		
Age			
20-29 years	56.3%		
30-39 years	27.7%		
40-49 years	11.1%		
50-59 years	3.3%		
60-69 years	1.5%		

Academic, Economic, and Demographic Information for Colleges/Universities and Admissions Counselors

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Logistic Regressions Predicting Admissions Counselor Response Rate from Cultural Capital Condition, Student Gender Condition, College Sticker price, and Covariates

	Model 1						Model 2					Model 3				
Independent Variables	В	95% CI		OR	р	В	95% CI	z	OR	р	В	95% CI	z	OR	р	
Intercept	.36	.10, .63	2.67	1.44	.008	.37	.10, .64	2.68	1.44	.007	.32	07, .70	1.62	1.37	.105	
Cultural capital condition <sup>a</sup>	.47	.08, .87	2.34	1.60	.019	.49	.09, .89	2.40	1.63	.016	.58	.17, .99	2.75	1.78	.006	
Student gender condition <sup>b</sup>	.47	.09, .85	2.43	1.60	.015	.46	.08, .84	2.39	1.59	.017	.53	.14, .92	2.66	1.69	.008	
Cultural capital $^{a} \times$ student gender $^{b}$	34	90, .22	-1.20	.71	.231	33	90, .24	-1.15	.72	.251	44	-1.02, .14	-1.49	.64	.136	
Sticker price						03	30, .25	19	.97	.847	15	52, .21	83	.86	.409	
Cultural capital <sup>a</sup> × sticker price						.47	.06, .89	2.21	1.60	.027	.48	.05, .92	2.16	1.62	.031	
Gender <sup>b</sup> × sticker price						.06	32, .45	.33	1.07	.741	.003	40, .41	.02	1.00	.985	
Cultural capital <sup>a</sup> $\times$ gender <sup>b</sup> $\times$ sticker						34	91, .24	-1.16	.71	.248	32	93, .28	-1.06	.72	.291	
Barron's Selectivity Index											.03	22, .28	.24	1.03	.814	
Total enrollment											.17	05, .40	1.44	1.18	.149	
Graduation rate											.35	.06, .64	2.35	1.42	.019	
% White											.05	12, .21	.56	1.05	.577	
Counselor age											.04	11, .19	.50	1.04	.618	
Counselor gender <sup>b</sup>											27	56, .02	-1.80	.76	.072	
Counselor race <sup>c</sup>											.20	13, .53	1.19	1.22	.235	
Model Statistics																
$\chi^2$ (df)		1	0.493(3	5)			19	.873(7)	)		53.362(14)					
<i>p</i> value	<i>p</i> value .015			.006				.000								
$\chi^2$ change (df)							9	.380(4)	)			33	8.488(7)	)		
<i>p</i> value								.052					.000			

*Note.* <sup>a</sup> Popular condition = 0, Highbrow condition = 1. <sup>b</sup> female = 0, male = 1. <sup>c</sup> person of color = 0, White = 1.

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Linear Regression Analyses Predicting Admissions Counselor Response Effort from Cultural Capital Condition, Student Gender Condition, College Sticker Price, and Covariates

	Model 1						Model 2						Model 3				
Independent Variables	В	95% CI	β	t	p	В	95	% CI	β	t	р	В	95% CI	β	t	p	
Intercept	2.45	2.27, 2.63	.00	27.22	.000	2.45	2.27	, 2.63	.00	27.15	.000	2.36	2.13, 2.59	.00	20.28	.000	
Cultural capital condition <sup>a</sup>	.36	.12, .60	.17	2.92	.004	.36	.12	2, .61	.17	2.94	.003	.30	.07, .535	.14	2.54	.011	
Student gender condition <sup>b</sup>	.14	09, .38	.07	1.20	.229	.16	09	9, .38	.07	1.22	.222	.11	11, .34	.05	.99	.322	
Cultural capital $^{a} \times$ student gender $^{b}$	02	35, .30	01	14	.890	04	3′	7, .29	02	22	.825	.04	28, .35	.02	.23	.822	
Sticker price						03	2	1,.14	03	35	.729	01	30, .10	10	-1.00	.319	
Cultural capital <sup>a</sup> × sticker price						02	20	5, .23	01	12	.903	.02	21, .26	.02	.20	.842	
Gender $^{b} \times$ sticker price						01	24	4, .22	01	11	.913	.02	20, .24	.01	.16	.871	
Cultural capital $^{a} \times$ gender $^{b} \times$ sticker price						.00	332	2, .33	.001	.02	.987	01	32, .30	005	06	.952	
Barron's Selectivity Index												02	15, .12	02	27	.788	
Total enrollment												16	26,05	16	-2.89	.004	
Graduation rate												01	18, .15	01	16	.872	
% White												.18	.08, .27	.16	3.67	.000	
Counselor age												14	22,06	14	-3.56	.000	
Counselor gender <sup>b</sup>												.05	11, .21	.02	.61	.541	
Counselor race <sup>c</sup>												.15	04, .33	.06	1.57	.118	
Model Statistics																	
$R^2$			.030						.032	2				.126			
Adjusted $R^2$			.026				.021					.105					
F (df1, df2), $p$ value		6.432(3, 0	618),	p = .000	)		2.	922(7,	, 614)	, <i>p</i> = .00	)5	5.222(14, 607), p = .000					
F change (df1, df2), $p$ value		· · · •					.311(4, 614), p = .871				9.248(7, 607), p = .000						

*Note*. <sup>a</sup> Popular condition = 0, Highbrow condition = 1. <sup>b</sup> female = 0, male = 1. <sup>c</sup> person of color = 0, White = 1.

Music Choice Stimuli Used in Study 2

# CHOICE #1: DMITRI SHOSTAKOVICH



• Prominent figure of 20<sup>th</sup> century

classical music; winner of the

Gold Medal of the Royal

# CHOICE #2: KATY PERRY



 International pop music sensation; throughout her career, she has sold 11 million albums and 81 singles worldwide.

*Note.* The figure on the left (Dmitri Shostakovich) was displayed in the highbrow condition, whereas the figure on the right (Katy Perry) was displayed in the popular condition. Placement of each music choice on the left or right side of the page was counterbalanced across participants.

The Relationship between Subjective SES and Preference for Listening to Highbrow Music Over Popular Music, Moderated by Whether Participants Made the Decision in Private or Public



*Note*. Subjective SES labels on the x-axis indicate one standard deviation above and below mean subjective SES. Higher scores on the y-axis indicate greater preference for highbrow music.

Photographs Used in Study 3 to Manipulate the Perceived Social Class of the Target



*Note.* The figure on the left was displayed in the lower-class condition, whereas the figure on the right was displayed in the upper-class condition (no photo was provided in the control condition).

The Relationship between Subjective SES and Preference for Highbrow versus Popular Cultural Products as a Function of Target Social Class



*Note.* Subjective SES labels on the x-axis indicate one standard deviation above and below mean subjective SES. Higher scores on the y-axis indicate greater preference for highbrow products.

Perceptions of Warmth and Competence of the Target as a Function of Cultural Capital Signaling Condition



*Note.* Higher scores on the y-axis indicate perceptions of greater warmth and competence. Error bars represent 95% confident interval around the mean for each condition.

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Interest in Hiring the Target for a High-paying Job as a Function of Cultural Capital Signaling Condition



*Note.* Higher scores on the y-axis indicate greater interest in hiring the target. Wider sections of the violin plots indicate a greater frequency of responses at that level in my 7-point scale. Error bars represent 95% confidence intervals around the mean for each condition.

The Relationship between College/University Sticker Price and Likelihood of Receiving an Email Response from the Admissions Counselor, Moderated by Cultural Capital Condition



*Note.* Sticker price labels on the x-axis indicate one standard deviation above and below mean sticker price. Higher scores on the y-axis indicate greater response likelihood.

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# Appendix A

Instructions and full list of items for the Cultural Capital Centrality scale (Study 1)

# Instructions

"Think of a person that has 'good taste': That is, someone who is very cultured in their tastes and preferences for things like food, music, art, movies, literature, and travel. The person with these kinds of tastes and preferences could be you or it could be someone else. For a moment, visualize in your mind the kind of person who has these tastes and preferences. Imagine how that person would think, feel, and act. When you have a clear image of what this person would be like, please indicate the extent to which you agree with each of the following statements."

# **Internalization Subscale**

- 1. It would make me feel good to be a person who has these kinds of tastes and preferences.
- 2. Being someone who has these tastes and preferences is an important part of who I am.
- 3. I would be ashamed to be a person who had these tastes and preferences. (R)
- 4. Having these tastes and preferences is not really important to me. (R)
- 5. I strongly desire to have these tastes and preferences.

# Symbolization Subscale

- 1. I often wear clothes that identify me as having these tastes and preferences.
- 2. The types of things I do in my spare time (e.g., hobbies) clearly identify me as having these tastes and preferences.
- 3. The kinds of books and magazines that I read identify me as having these tastes and preferences.
- 4. The fact that I have these tastes and preferences is communicated to others by my membership in certain organizations.
- 5. I am actively involved in activities that communicate to others that I have these tastes and preferences.

*Note.* Participants responded to all items on a 1 (*strongly disagree*) to 7 (strongly agree) scale.  $(\mathbf{R}) =$  reverse-scored item.

# **Appendix B**

Instructions and full list of items for the measure of preference for highbrow cultural capital in Study 3.

# **Food Preference**

# Instructions

"Imagine that you and the other employee decide to go out to dinner after work for your first meeting. How likely would you be to suggest each of the types of cuisines listed below?"

# **Popular Food Items**

- 1. Pizza
- 2. Fast food
- 3. Bar/pub food
- 4. Mexican

# Highbrow Food Items

- 1. Italian
- 2. French
- 3. Seafood
- 4. Asian fusion

# **Movie Preference**

# Instructions

"Now imagine that the other employee tells you that he and his wife want to go out to a movie over the weekend, and that he has asked you for recommendations. On the following pages, you'll be presented with several movies and asked how likely you would be to recommend each."

# **Popular Movie Items**



TITLE: Last Christmas

GENRE: Romantic comedy

<u>SUMMARY</u>: Kate (Emilia Clarke) harumphs around London, a bundle of bad decisions accompanied by the jangle of bells on her shoes, another irritating consequence from her job as an elf in a year-round Christmas shop. Tom (Henry Golding) seems too good to be true when he walks into her life and starts to see through so many of Kate's barriers. As London transforms into the most wonderful time of the year, nothing should work for these two. But sometimes, you gotta let the snow fall where it may, you gotta listen to your heart.



TITLE: Dolittle

GENRE: Family comedy

<u>SUMMARY</u>: After losing his wife seven years earlier, the eccentric Dr. John Dolittle (Robert Downey Jr.), famed doctor and veterinarian of Queen Victoria's England, hermits himself away

behind the high walls of Dolittle Manor with only his menagerie of exotic animals for company. But when the young queen (Jessie Buckley) falls gravely ill, a reluctant Dolittle is forced to set sail on an epic adventure to a mythical island in search of a cure, regaining his wit and courage as he crosses old adversaries and discovers wondrous creatures. The doctor is joined on his quest by a young, self-appointed apprentice (Harry Collett) and a raucous coterie of animal friends, including an anxious gorilla (Rami Malek), an enthusiastic but bird-brained duck (Octavia Spencer), a bickering duo of a cynical ostrich (Kumail Nanjiani) and an upbeat polar bear (John Cena) and a headstrong parrot (Emma Thompson), who serves as Dolittle's most trusted advisor and confidante.



TITLE: Star Wars: Episode IX - The Rise of Skywalker

GENRE: Sci-fi/adventure

<u>SUMMARY</u>: No one's ever really gone... Rey's journey continues and the Skywalker saga concludes in Star Wars: The Rise of Skywalker.



TITLE: Bad Boys for Life

GENRE: Action/thriller

<u>SUMMARY</u>: The Bad Boys Mike Lowrey (Will Smith) and Marcus Burnett (Martin Lawrence) are back together for one last ride.

Highbrow Movie Items



TITLE: Marriage Story

GENRE: Drama

<u>SUMMARY</u>: An incisive and compassionate portrait of a marriage breaking up and a family staying together.



TITLE: The Irishman

GENRE: Biographical drama

<u>SUMMARY</u>: The Irishman is an epic saga of organized crime in post-war America told through the eyes of World War II veteran Frank Sheeran (Robert De Niro), a hustler and hitman who worked alongside some of the most notorious figures of the 20th Century. Spanning decades, the film chronicles one of the greatest unsolved mysteries in American history, the disappearance of legendary union boss Jimmy Hoffa, and offers a monumental journey through the hidden corridors of organized crime: its inner workings, rivalries and connections to mainstream politics.



TITLE: Parasite

GENRE: Foreign

<u>SUMMARY</u>: Meet the Park Family: the picture of aspirational wealth. And the Kim Family, rich in street smarts but not much else. Be it chance or fate, these two houses are brought together and

the Kims sense a golden opportunity. Masterminded by college-aged Ki-woo, the Kim children expediently install themselves as tutor and art therapist, to the Parks. Soon, a symbiotic relationship forms between the two families. The Kims provide "indispensable" luxury services while the Parks obliviously bankroll their entire household. When a parasitic interloper threatens the Kims' newfound comfort, a savage, underhanded battle for dominance breaks out, threatening to destroy the fragile ecosystem between the Kims and the Parks.



TITLE: For Sama

# **GENRE**: Documentary

<u>SUMMARY</u>: For Sama is both an intimate and epic journey into the female experience of war. A love letter from a young mother to her daughter, the film tells the story of Waad al-Kateab's life through five years of the uprising in Aleppo, Syria as she falls in love, gets married and gives birth to Sama, all while cataclysmic conflict rises around her. Her camera captures incredible stories of loss, laughter and survival as Waad wrestles with an impossible choice– whether or not to flee the city to protect her daughter's life, when leaving means abandoning the struggle for freedom for which she has already sacrificed so much.

# Appendix C

Full text of emails sent to admissions counselors in Study 5.

"Dear (admissions counselor name),

"I have recently begun my college search and my high school guidance counselor recommended that I look at (college). I am from the San Francisco Bay Area and will be a senior next year. I have always enjoyed and done well in English and Math. Therefore, I am considering pursuing these majors in college. In addition to my coursework, I volunteer at my community library as a math tutor, where I primarily assist middle school students with geometry and algebra. I am also involved in several extracurricular activities..."

# **Highbrow Condition**

"...For example, I play trombone in a symphonic band at school and am president of the independent film club. I also enjoy going sailing on the weekends."

# **Popular Condition**

"...For example, I play guitar in a rock band at school and am president of the sci-fi movie club. I also enjoy playing pick-up soccer on the weekends."

"As you can see, I am highly involved in a variety of activities that help me to further explore my academic interests. I just wanted to know whether you think someone with my interests would fit well at (college)?

(student name)"