## NORTHWESTERN UNIVERSITY

# Ascribed Versus Acquired Representations of Social Class and Their Relation to Anti-Poor Prejudice

## A DISSERTATION

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#### **Abstract**

Prejudice based on a person's low socioeconomic status (SES) has been largely understudied in social psychology. In my dissertation research, I argue that understanding a perceiver's mental model of SES is crucial to explaining anti-poor prejudice. I borrow from work in anthropology to characterize two main mental models of SES—ascribed and acquired models (Berreman, 1972). In short, an ascribed model holds that SES is generationally transmitted; that all members of an SES group are culturally similar; and that group membership determines attitudes and behaviors. In contrast, an acquired model posits that ancestry is irrelevant for group membership; that members of an SES group are culturally heterogeneous; and that group membership is determined by the extent to which a person displays group-consistent attitudes and behaviors. Across five studies, I explore the relationship between these mental models of SES and anti-poor prejudice. First, I examine whether there is variation across individuals in mental models of SES and whether it is related to different forms of anti-poor prejudice (Studies 1 and 2). Second, I investigate whether different SES indicators activate different representations (Studies 3 and 4), specifically, I examine whether income activates a more acquired representation and social class a more ascribed one. Finally, I consider motivational forces that might influence SES-representation. Specifically, I test whether a person's sense of status-based identity uncertainty (Destin, Rheinschmidt-Same, & Richeson, 2017b) is related to mental models of SES (Study 5a), and if so, whether being induced to feel uncertain of one's status-based identity spontaneously activates the corresponding mental model of SES (Study 5b). Together, the studies in my dissertation aim to better understand and characterize anti-poor prejudice.

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#### **Chapter One**

#### Introduction

The study of prejudice has long been a central issue of concern for social psychologists and with good reason. A cursory survey of recent world headlines shows the toxic effect of prejudice in everyday life: Black individuals being shot and killed by police offers while unarmed; gay individuals being killed at a nightclub in Orlando, Florida; and Muslims being dehumanized across Europe. However, less salient and less studied is prejudice based on one's socioeconomic status (SES). This is not to say researchers have ignored the effects of social class on people's lives. Numerous studies have documented disparities based on one's social class regarding educational (e.g., Stephens, Hamedani, & Destin, 2014) and health outcomes (Adler, Boyce, Chesney, Cohen, Folkman, Kahn, & Syme, 1994). These studies, however, primarily have focused on characterizing SES-based disparities in important life outcomes. Less attention has been directed to the question of how SES operates as a social category in processes of social perception. This thesis focuses on the question of how social perceivers *use* SES as a basis for stereotyping and prejudice.

#### What is SES?

Before continuing, it is useful to define what we mean by SES. Most sociological definitions of SES (where most of the work on social class has been done) state that SES is the extent to which a person has access to cultural, economic, and social capital (Savage, Warde, & Devine, 2005). Psychologists have extended this definition to suggest that access to these resources determines where someone feels they stand in society vis-à-vis other people (Adler, Epel, Castellazzo, & Ickovics, 2000). This rank-based system allows for a theoretical framework where access to resources and subjective sense of positioning in society are mutually reinforcing;

more access to resources leads to a higher sense of SES, and higher SES individuals in turn reaffirm the individualistic values that help to determine who gets access to resources (Kraus, Tan, & Tannenbaum, 2013; Kraus, Piff, Mendoza-Denton, Rheinschmidt, & Keltner, 2012).

Measurement of SES has often followed from these definitions. Although several different researchers have noted the complexity of measuring SES (e.g., Fiske & Markus, 2012; Kraus & Stephens, 2012), operationalizations generally fall into objective and subjective approaches. Objective measures are usually used as a composite of multiple indicators such as educational attainment, occupation, and income, though each has also been used on its own to operationalize SES (Kraus & Stephens, 2012). These indicators give some insight into a person's access to various types of resources (e.g., income for material resources), but they miss people's subjective sense of where they stand in the social hierarchy. To capture this central concept, Adler and colleagues developed a broader measurement that centers this relative comparison, which implicitly (or explicitly) rests upon a person's evaluation of their access to material resources (Adler et al., 2000). This relative ranking—termed subjective SES—has been shown to be a better predictor of important outcomes like health and well-being compared to more objective measures (Adler et al., 2000).

From the perceiver perspective, however, information about a stranger or unknown individual's subjective sense of SES is very difficult if not impossible to ascertain and thus cannot readily be used as a basis for social categorization. Instead, perceivers must rely on physical or material cues such as clothing to detect and determine a target person's SES (Kraus & Keltner, 2009). As these cues are usually determined by indicators that communicate access to material resources (e.g., income), we suggest perceivers are more likely to psychologically

evaluate others on the basis of these objective measures. Thus, we operate with the notion that perceivers are likely to use objective indicators as bases for representations of SES.

### **Characterizing and Explaining Anti-Poor Prejudice**

While there undoubtedly can be prejudice towards the middle class and the wealthy, it is not the central focus of the current research. In certain political or economic systems such as communism, the prejudice towards the middle class and wealthy may be especially vitriolic. The Communist Revolution in China is a clear example of this, with the producers (i.e., working class individuals) often violently overthrowing and ousting higher class individuals such as landowners, bureaucrats, and scholars (Meisner, 1999). However, we situate the present work within the United States cultural and economic framework, which largely stigmatizes those possessing a low SES identity. As noted earlier, it is this group of individuals that typically end up with the worst life outcomes, such as lower educational attainment and a shorter life span. Thus, it is particularly important to understand the possible contribution of prejudice and discrimination to these disadvantages.

Understanding anti-poor prejudice per se, then, is crucial to understanding why there has been such resistance to policies that would otherwise help low SES individuals change their circumstances (e.g., MacLeod, Montero, & Speer, 1999). Given that prejudice often occurs based on some evaluation that one person makes of another based on some salient characteristic, one important factor in understanding anti-poor prejudice is the mental model that perceivers use to represent social identities. Mental models of social identity can be characterized in a number of different ways. For example, individuals may have different representations of a social identity's desirability (Frable, 1993). Another way that these mental models might differ is in

the identity's stereotype content as documented in the stereotype content model (SCM; Fiske, Cuddy, Glick, & Xu, 2002).

The SCM forwards that all social categories are evaluated along dimensions of warmth and competence with regard to their stereotype content, forming roughly four quadrants. Some identities—such as women—are stereotypically high in warmth, but low in competence; on the opposite end, categories are stereotypically high in competence, but low in warmth, like Asians. The other two quadrants are those categories that are high in competence and warmth (e.g., Whites) and those low in competence and warmth (e.g., welfare recipients). Most relevant to the current work, Fiske and colleagues use "welfare recipients" and "homeless" as examples of individuals whose category membership places them in the low competence, low warmth quadrant (Fiske et al., 2002). Both of these examples fall under the general umbrella of "poor", though they have certain qualities that distinguish them. Importantly, the stereotype dimensions of warmth and competence serve as the basis for evaluative judgments towards outgroups—termed the BIAS (Behaviors from Intergroup Affect and Stereotypes) map (Cuddy, Fiske, & Glick, 2007). In this model, the poor, who are stereotyped as low in both warmth and competence, elicit contempt and disgust on the part of perceivers.

While the SCM is useful in understanding how culturally shared stereotypes shape perceptions of groups in systematic ways, it falls short of being able to fully explain SES-based prejudice. That is, the SCM and BIAS map suggest that the poor elicit only negativity (Cuddy et al., 2007). However, other work has found that attitudes towards the poor may be more ambivalent than the SCM findings imply (Cozzarelli, Tagler, & Wilkinson, 2001). In a descriptive study, Cozzarelli and colleagues (2001) found that perceivers had both positive and

negative stereotypes of lower SES individuals. Other work has implicitly alluded to this ambivalence, for example in the study of complementary stereotypes of "poor but happy" (Kay & Jost, 2003). Finally, and most directly, an exploratory study we have conducted found that while stereotypes of the poor were largely negative, perceivers still noted positive elements such as believing the poor really know the value of material possessions and are generally more helpful (Lei & Bodenhausen, 2017c).

We should point out that although the SCM does not reflect the ambivalence towards the poor found in other work, this is not to suggest the SCM cannot or does not explain ambivalence towards social categories in general. Indeed, the juxtaposition of warmth and competence for many social identities is geared towards explaining such ambivalence (e.g., Glick & Fiske, 1999). In the SCM, social status predicts competence, which may be the overarching dimension that people use to evaluate low-SES individuals. However, the perceived degree of competition (which predicts warmth) may moderate this broad negativity and help to explain whether ambivalence towards the low-SES individuals occurs. If an individual perceives competition from low-SES individuals, then there should be no ambivalence – only negativity. Indeed, studies show that the extent to which people perceive low-SES targets to be undeserving of benefits from society (i.e., competition for social resources like tax money) predicts their negativity towards low-SES targets (e.g., Brown-Iannuzzi, Dotsch, Cooley, & Payne, 2017; Furnham, 1984). On the other hand, if perceived competition is low, this may result in less coldness and outgroup hostility. Nonetheless, it is notable that although ambivalence towards those possessing a low-SES identity exists and could be explained by the SCM, it is not reflected in the empirical data.

In order to understand why this ambivalence towards the poor exists, we suggest additional parameters of social identity need to be considered. Beyond stereotype content per se, assumptions about a social identity's structural properties should be considered as well. There are a number of different factors such as malleability (e.g., Sanchez, Shih, & Garcia, 2009), discreteness (e.g., Tajfel & Turner, 1979), or desirability (i.e., the extent to which people wish to possess that identity; Frable, 1993; Deaux, Reid, Mizrahi, & Ethier, 1995) that help to characterize the mental models of social identities. One framework that neatly captures these elements is whether a social identity is represented as ascribed or acquired (Berreman, 1972; Deaux et al., 1995).

#### Ascribed versus Acquired as a Dimension of Social Identity

The anthropologist Gerald Berreman (1972) first introduced the distinction between ascribed versus acquired social identities as a way of explaining social stratification. Berreman argued that an ascribed social identity is one where members are culturally homogenous, membership is inherited (generational), and attitudes and behaviors occur as a function of group membership. In contrast, an acquired social identity is less culturally homogenous, ancestry is largely irrelevant, and people are considered a member of that social group if they display group-consistent attitudes and behaviors. To illustrate, social identities such as one's gender and race are generally considered to be ascribed, while one's occupation as a professor or garbage collector would be considered to be acquired. The former examples are considered to be determined at birth, whereas the latter examples are not.

These definitions are useful in helping to conceptualize what it means for a social identity to be ascribed or acquired. There are two especially pertinent potential outcomes that come as a result of representing a social identity as ascribed or acquired -(1) viewing the social identity as

more discrete or continuous, and (2) viewing membership in the identity as a result of one's own personal actions or not. We focus on these two outcomes because they are common elements that underlie a large body of intergroup research. Discrete or continuous structures relate to the idea that categories may have essences (Medin & Ortony, 1989), an idea which has been linked to discrimination towards outgroups (Haslam & Whelan, 2008). Personal responsibility is an integral component to beliefs about how society should be structured, including protestant work ethic (PWE), which is a set of beliefs and values that help to determine perceptions of how society should operate (e.g., Furnham, 1983). Although it is an open (and empirical) question as to how ascribed versus acquired representations correlate with these outcomes, we draw upon these vast bodies of work to forward a few hypotheses.

Berreman's description of what it means for a social identity to be ascribed or acquired has straightforward implications regarding the perceived discreteness of a social identity. Given that an acquired identity is thought to be inferred based on the extent to which overtly displayed attitudes and behaviors are typical of a particular identity, and given that this fit can vary continuously from low to high, an acquired representation should generally result in a less discrete view of the social identity in question. To illustrate, there could be a gradient of behaviors that determine whether someone possesses a "carpenter" social identity; a person doing woodworking projects in her spare time, an apprentice learning the trade, and a master carpenter creating large commissioned works could be identified as a carpenter to various degrees. Conversely, an ascribed representation implies that someone either does or does not inherit a given identity, irrespective of observed behavior. This sort of all-or-nothing thinking should result in more discrete representations of social identity.

In principle, any social identity can be thought of as ascribed or acquired and thus may be represented in a more discrete or continuous manner. For example, Bodenhausen and Peery (2009) have suggested that one challenge for perceivers in the modern era is that of targets who appear categorically ambiguous, such as multiracial individuals. Although there are historical and cultural factors that ultimately assist a perceiver in categorizing such multiracial individuals (cf. Peery & Bodenhausen, 2008), the ambiguity posed by such individuals suggest the need for a more nuanced, graded model of race. As another example, Carothers and Reis (2013) argue that elements of gender are continuous (or dimensional, in their terms) rather than categorical (or taxonic). Interestingly, their results show that certain traits that are assumed to be inherent to one gender or the other (e.g., height or weight) fit best within a categorical model, while other traits that are observed and assumed to correlate with gender (e.g., masculinity or femininity) are more continuous (Carothers & Reis, 2013). This difference converges with the distinction drawn here - when thinking of traits endogenous to the category, the representation is more ascribed and thus discrete; when observing traits that are culturally understood to correlate with gender, the representation of the social identity is more acquired and thus continuous. This is perhaps best illustrated by the case of transgender and gender non-conforming persons, who lay outside of a clear-cut male-female gender binary.

Finally, if discrete structures of social identity follow from an ascribed representation, then ascribed representations are also more likely to have clear and simple criteria for inclusion in that group. For gender, this may be the presence (versus absence) of certain reproductive organs. For race, this may be the racial identity of a person's biological parents (Banks & Eberhardt, 1998). This stands in contrast with continuous representations of acquired social identities, which may have less definite criteria for inclusion. Here, perceivers may weigh a

target's observed behaviors or attitudes against group-relevant standards and prototypes to assess a person's fit to a given identity in a more continuous manner (cf. Rosch & Mervis, 1975). Of course, there may be cultural differences in whether SES is represented more continuously or discretely. Work from sociology posits that SES can be considered in either a distributional or relational framework and that which framework predominates may depend on the particular cultural context (e.g., Wright, 1979). Generally, a distributional framework of SES –which suggests that individuals lie on a continuum determined by some criterion like income— seem to be more prevalent in cultures where individual effort is emphasized such as the United States (Lucal, 1994). This framework maps onto a continuous structure of SES, such that movement from one point to another along this continuum is possible and implicitly suggests this is achievable if the individual is willing to put in the effort. In contrast, relational frameworks which claims there are groups of people that operate in relation to one another as in the case of employers and employees—are more prevalent in cultures and societies that have established hierarchies such as the United Kingdom or India (Lucal, 1994). This framework maps onto a discrete structure of SES by delineating groups that exist hierarchically by virtue of their superior/subordinate relationship—a hierarchy in which status-maintenance and egalitarian motives both exert influences.

The second outcome of the ascribed-acquired dimension is whether group members are seen as personally responsible for possessing a given identity or not. Similar to the discreteness outcome, we use Berreman's description to make predictions as to how perceptions of personal responsibility for membership in a group correlates with the ascribed-acquired dimension.

Acquired representations of a social identity use a person's behavior and characteristics to determine the degree to which the individual should be considered to possess a given identity,

whereas ascribed representations simply consider that a person either is or is not a group member, with group-typical characteristics and behavior expected to follow from the inherited identity. In other words, acquired representations have a causal direction from observed attitudes and behavior to group membership, while an ascribed representation has a reverse causal direction from group membership to expected attitudes and behaviors (Berreman, 1972).

This difference in the directionality of causal inference is also likely to drive differences in perceptions of personal responsibility for group membership. The behavior  $\rightarrow$  group membership causal direction for acquired representations clearly indicates that one's own behavior determines one's group membership, thus establishing one's responsibility for one's status vis-à-vis the group. In contrast, the group membership  $\rightarrow$  behavior causal direction, when combined with a view that group membership is involuntarily inherited, would suggest a negative correlation between ascribed representations and perceptions of personal responsibility. Theoretically, this dimension is related to the large body of work on protestant work ethic (PWE; Furnham, 1984; Quinn & Crocker, 1999). The PWE construct involves a centering of the individual and emphasizes his or her ability to influence important self-relevant outcomes, of which group membership is one (Weber, 2002). Belief in the responsibility of individuals for their group membership is also related to a larger network of world beliefs that serve to maintain and legitimize a certain worldview and social system. More specifically, if individuals are responsible for their group membership, then the social hierarchies that exist are justifiable (cf. Jost & Banaji, 1994; Sidanius & Pratto, 2001). From this perspective, the prejudice that is directed against members of low-status social groups is often considered to be deserved (Appelbaum, Lennon, Aber, 2006).

Discreteness and responsibility are two among many potential outcomes of ascribed versus acquired mental models of an identity, but they may be especially important in understanding anti-poor prejudice. Using a discrete structure to represent a social identity is likely to trigger an intergroup orientation. Intergroup differentiation reliably produces ingroup favoritism, but not necessarily antipathy towards the outgroup (Brewer, 1999; Tajfel & Turner, 1979). Additional psychological constructs and beliefs may dictate whether animosity toward an outgroup will occur in intergroup contexts, such as psychological essentialism (i.e., the immutability of the discrete groups; Haslam & Whelan, 2008) and system justifying ideologies (Jost & Banaji, 1994).

System justifying ideologies may play an especially important role because it provides a causal explanation for group membership. Such ideologies are likely to motivate reasoned explanations for group memberships (Jost & Banaji, 1994). If a person strongly believes that the system is fair and legitimate, then the response evoked in such an intergroup context might be anger and antipathy towards the outgroup (e.g., Jost & Burgess, 2000; Kahn, Ho, Sidanius, & Pratto, 2009). This sort of response may arise because individuals who endorse a social hierarchy's legitimacy are likely to see group status differences as justified even if low SES individuals have no personal responsibility for their group membership; this ultimately should lead to more prejudice towards lower-status groups. This reality is reflected in certain social contexts, such as the case of Dalits (also known as Untouchables) in the Indian caste system (e.g., Mahalingam, 2003). In contrast, those who are low in this belief may question why their group is higher in the status hierarchy, resulting in more sympathy and less hostile prejudice. Specifically, this combination of factors should lead people to perceive the system as unfair and invoke norms against expressing prejudice towards low status members who are not responsible

for their group membership (e.g., Crandall & Eshleman, 2003, Monteith, Ashburn-Nardo, Voils, & Czopp, 2002). Thus, the effects of discreteness on prejudice may be complex, in some ways increasing bias but in other ways potentially reducing it.

The complexity of discreteness on prejudice is unlikely to be reflected when a person has a more continuous structural representation of SES. To the extent that acquired representation do lead to more continuous structures of social identity, then this is not likely to trigger either an intergroup context or concerns about the expression of bias towards low status groups. Instead, this minimization of differences between different SES groups is likely to positively correlate with the belief that anyone can influence their SES group membership and that the system is legitimate.

These connections between personality responsibility (i.e., controllability) and prejudice are more clear-cut. Weiner's (1985) attributional model neatly identifies controllability (along with locus of causality and stability) as one of the three main factors in people's reasoned explanations for success or failure. In brief, Weiner argues that the causality of any given outcome influences which emotions are aroused and how people will respond to any given event; which particular emotions and reaction exactly might be determined by a 2 x 2 x 2 matrix that combines the three aforementioned factors. For example, internal, controllable attributions for a perceived failure or deficit are likely to elicit anger, while internal, uncontrollable attributions are likely to elicit pity (Cozzarelli et al., 2001; Hornsey, Spears, Cremers, & Hogg, 2003; Kluegel & Smith, 1986; Weiner, 1985; Weiner, 1995). Consequently, we would expect greater prejudice towards low-SES individuals to the extent that perceivers endorse the idea that people can control their SES group membership (Weiner, 1995; Weiner, Osborne, & Rudolph, 2011).

Moreover, these perceptions are unlikely to invoke social norms against expressing prejudice towards low status individuals, particularly because the belief in personal responsibility should allow for justification of such prejudice (Crandall & Eshleman, 2003).

### Relating the Ascribed-Acquired Dimension to Work on Essentialism

The description of the ascribed-acquired dimension and particularly the discrete-continuous outcome that follows from such representations bear a clear resemblance to work on essentialism, which is the idea that categories (or groups) have an underlying unchangeable essence that all members share (Haslam & Whelan, 2008; Medin & Ortony, 1989). In general, two major dimensions of essentialism have emerged: (1) the extent to which a category is seen as distinct from other categories (similar to the work on entitativity; see Yzerbyt, Corneille, & Estrada, 2001 for a review), and (2) the extent to which a category is seen as natural (or by extension, biologically-derived; e.g., Dar-Nimrod & Heine, 2011).

On the surface, the discreteness dimension of essentialism might operate similarly to an ascribed representation, in that both ought to delineate clear psychological boundaries and distinctions between groups. The literature on essentialism has plenty of examples of how this categorical distinction exists between groups and how it relates to outgroup antipathy. For example, Keller (2005) examined the relationship between belief in biological essentialism and its relationship with racial stereotyping, finding that a greater belief in biological essentialism is associated with greater racial stereotyping. This showcases how an essentialist notion (i.e., that there is something fundamentally different about members of another category) leads to greater use of heuristics that promote differentiation (i.e., racial stereotyping). Similarly, work by Haslam and colleagues has found that perceptions of greater group entitativity lead to more prejudice toward gay men (Haslam, Rothschild, & Ernst, 2002). Most directly relevant to the

current work is research by Kraus and Keltner (2013) examining how people essentialize SES. This body of work has largely focused on how higher versus lower SES individuals differ in their essentialist beliefs about SES. For example, work by Mahalingam (2003) uses a brain transplant paradigm to examine how different castes in India think about SES. The results indicate that more individuals from the upper caste believe that a rich man will continue to act like a rich man, even if his brain is transplanted to a poor man's body (suggesting essentialism). In contrast, equal numbers of individuals from the lower caste believed that a rich man would or would not change following a brain transplant. Kraus and Keltner (2013) replicate this tendency of higher SES individuals to essentialize class differences in an American context and extend it to examine the effects of SES essentialism on punishment decisions. Because higher SES individuals tend to essentialize SES and see it as more fixed and biologically derived, such individuals are more likely to issue harsher, retributive punishments (e.g., expulsion) to academic cheaters. In other words, higher SES individuals see academic cheaters as lower SES targets who cannot change and become the kind of student who does not cheat. In contrast, because lower SES individuals essentialize SES to a lesser degree and thus take into account the environmental factors that led the target student to cheat. As a result, lower SES individuals were more likely to issue more restorative punishments (e.g., community service).

Both ascription and essentialism suggest that group membership simply is or is not the case. Moreover, both psychological constructs may be shaped by certain ideological orientations and may vary across different social identities. For example, sexual orientation is a social identity where there is wide variation in the belief of biological determinism and group entitativity across persons, with liberals tending to hold a higher biologically essentialized view of sexual orientation relative to conservatives (Haslam et al., 2002; Haslam & Levy, 2006;

Hegarty & Pratto, 2001). In contrast, other social categories like gender may correspond with more acquired or continuous representations for liberals, but more discrete, biologically determined, and entitative representations for conservatives (e.g., Haslam, Rothschild, & Ernst, 2000). This variation within a social identity is important; belief in group entitativity has been shown to correlate positively with anti-gay prejudice (Haslam et al., 2002), while belief in biological essentialism has been shown to correlate negatively with anti-gay prejudice (Hegarty & Pratto, 2001). In real life social movements, gay rights proponents have successfully used the argument that sexuality is biologically-derived to drive greater acceptance of gay rights issues (Greenberg, 2007).

These ideological forces are important and provide a window into how ascription and essentialism might differ. If we focus narrowly on the discrete/continuous outcome of the ascribed-acquired dimension, then it is a reasonable inference that an essentialist view of SES maps on to an ascribed representation because they both view SES as more categorical than not (and vice versa for acquired representation and less essentialized perspectives). Despite these similarities, however, there are important differences between the ascribed-acquired dimension and essentialist beliefs about a social identity. While essentialism has largely focused on the biological (and genetic) origin of social identity membership (e.g., Dar-Nimrod & Heine, 2011), an ascribed representation draws less of a hard and fast line, simply suggesting that membership is generational. This leaves open the possibility that a social identity is primarily determined by one's inherited social or familial environment and is agnostic to the influence of biogenetic "essences." For example, an essentialist view of "American" as a social identity may suggest that genuine group membership is a function of one's genes and one must be born in America to parents with European genetic ancestry to be a "real" American (Devos & Banaji, 2005). In

contrast, an ascribed representation allows for a sociocultural notion of being "born an American," as would be the case for the children of Asian immigrants who were born and raised in America and who express American cultural characteristics. A biological essentialist view would not consider the latter to be a true American, while an ascribed representation could. Thus, the notion of ascription is less wedded to biogenetic notions of the inheritance of social identities and recognizes the deterministic role that can be played by "inherited" social circumstances (Rangel & Keller, 2011). Instead, the ascribed-acquired dimension invites perceivers to consider why people have the social identities they have and allows for consideration of macrosocial forces rather than simply biological or not.

As a result, the predictions for these two constructs differs sharply. Whereas greater SES-essentialism would predict greater anti-poor prejudice, we predict that an ascribed representation would actually lead to less anti-poor prejudice (and vice-versa for an acquired representation leading to more anti-poor prejudice while less SES-essentialism should lead to less). Because an ascribed representation takes into account an individual's lay beliefs of whether or not people are responsible for their SES group membership in addition to the source of SES group membership, an ascribed representation is like to focus perceivers on how structural factors result in these group differences, rather than perceived defects of personal characteristics. Thus, the ascribed-acquired dimension goes beyond biological essentialism to incorporate the possibility of social factors determining group membership. Additionally, the ascribed-acquired dimension may help to provide a better explanation of why biological essentialism sometimes does lead to greater prejudice (as in the case of race or class; Kraus & Keltner, 2013; Williams & Eberhardt, 2008) and sometimes does not (Hegarty & Pratto, 2001; Jayaratne, Ybarra, Sheldon, Brown, Feldbaum, Pfeffer, & Petty, 2006). Specifically, an ascribed representation of social identity invokes social

norms that suggest prejudice towards low-status group members is improper and unwarranted due to the lack of personal responsibility for group membership. In contrast, an acquired representation of these social identities does not invoke these prohibitive social norms and allows for justification processes to work, leading to more prejudice. This perspective is consistent with the hypothesis forwarded by Hegarty (2002), who argues that the link between immutability and more tolerant attitudes depends on the social construction of immutability beliefs as invocations of tolerance.

## Relating the Ascribed-Acquired Dimension to Work on Lay Theories

The ascribed-acquired dimension is also conceptually similar to the work on lay theories. Indeed, the ascribed-acquired dimension could be thought of as a type of lay theory (Molden & Dweck, 2006). Lay theories have generally focused on the folk conceptions and beliefs individuals have about the changeability of personal traits – either they are relatively fixed, or they are relatively malleable (Dweck, Chiu, & Hong, 1995; Molden & Dweck, 2006). This dimension has been used extensively in assessing children's self-perception of intelligence. A fixed (or entity) lay theory of intelligence results in helplessness when encountering a difficult obstacle, but a malleable (or incremental) lay theory results in greater persistence in the face of an obstacle (Dweck et al., 1995). However, Dweck herself notes that different domains may have different lay theories. Thus, for example, people who have an entity theory of intelligence may also have an incremental theory of morality. Recently, Browman and colleagues have extended this work into the realm of social status, assessing whether people perceive their social status to be fixed or incremental (Browman, Destin, Carswell, & Svoboda, 2017).

It is easy to the similarities between the ascribed-acquired dimension and lay theories. An acquired representation implies malleability, which stands centrally in incremental or growth

mindsets. Similarly, an ascribed representation implies a certain amount of fixedness, which is at the heart of entity theories. However, despite these similarities between lay theories and the ascribed-acquired dimension, there are still differences. Take, for example, acquired representations and incremental lay beliefs. Research on incremental lay theories has most typically focused on how such theories influence current self-perceptions and motivate goaldirected behavior aimed at producing personal improvement. For example, an incremental lay theory of intelligence can lead a child to persist in challenging circumstances (e.g., Yeager & Dweck, 2012). In contrast, acquired mental models of socioeconomic status are focused on understanding the past accomplishments (or lack thereof) of other people. Whereas incremental lay theories are concerned with the possibilities for future change, acquired models of SES are concerned with accounting for the existing status quo. Although these concerns are related, the difference in temporal emphasis is noteworthy. The differential focus on self- versus otherperceptions is also important. Consideration of one's own outcomes often leads to self-serving biases that do not exist when considering others (e.g., Pronin, Lin, & Ross, 2002). That is, if one holds an incremental belief for oneself, the notion is that there is an upward trajectory from the current state – a positive, future orientation (Yeager & Dweck, 2012). Such positivity may emerge if an individual with an acquired model of SES evaluates a wealthy target, but it may also generate negative appraisals if the target is poor (Weiner et al., 2011). Finally, the discreteness factor implied by the ascribed-acquired dimension has not typically been the focus of the lay theories approach. Thus, by incorporating personal beliefs about inheritance into a group, discreteness, and the influence of the causal direction between group membership and observed behaviors, the ascribed-acquired distinction extends beyond the traditional lay theories approach, which has focused more on malleability per se.

Ultimately, we believe that although certainly related to the work on both essentialism and lay theories, there are theoretical reasons to believe that the ascribed-acquired dimension is conceptually and empirically distinct. Moreover, the ascribed-acquired dimension serves as a broad framework in which work from both areas can be integrated. Chapter Two focuses on assessing the ascribed-acquired dimension by examining whether this varies across individuals and whether such variation is related to anti-poor prejudice. Additionally, we examine the possibility that different indicators of SES activate more ascribed or acquired representations of SES. Chapter Three focuses on the motivational determinants of activating an ascribed or acquired representation of SES. Specifically, we examine whether one type of representation or the other is activated in situations of identity uncertainty.

#### **Chapter Two**

# **SES** as Ascribed or Acquired

As alluded to in Chapter 1 with the race and gender examples, social identities may be represented as primarily ascribed or acquired; however, there may also be significant variation within a social identity. This may be especially evident for SES, which often lacks clear physical cues for group membership (Kraus & Stephens, 2012). This ambiguity does not allow for perceivers to make quick automatic inferences about SES group membership, forcing them to instead rely on material or behavioral cues (e.g., Kraus & Keltner, 2009). If an individual represents SES as more ascribed, then they may perceive that behavioral outcomes such as academic achievement or job attainment are *consequences* of the target individual's group membership. This is likely to engender greater consideration of the generational nature of SES group membership as well as more attention to the structural factors that influence said membership, ultimately leading to less anti-poor prejudice. Conversely, if an individual represents SES as more acquired, then behaviors and outcomes such as academic achievement are viewed as *determinants* of group membership rather than the result of group membership. Use of such behaviors and outcomes leads to perceptions of personal responsibility for identity membership; anti-poor prejudice is thus justified and legitimate because of such attributions.

Sociocultural factors may influence whether a perceiver adopts an ascribed or acquired representation of SES. For example, India, with its history of a caste system and the resulting sharp delineations between castes, may be more likely to think of SES as highly ascribed (cf. Mahalingam, 2007). In contrast, The United States may be more likely to think of SES as acquired, given its Protestant sociocultural roots (Furnham, 1984). At the heart of Protestantism is the idea that one's work ethic fulfills moral and religious obligations (Weber, 2002). This

ideology centers the individual's willingness to work hard to achieve goals and fulfill duties—a concept that is well-aligned with an acquired representation.

The dynamics at play at the societal or cultural level may also play out within different communities in a given society, best captured by demographic or individual difference variables. For example, the oft cited individualistic-collectivistic dimension of culture that is purported to underlie many differences between Western and Eastern cultures is also found between high and low-SES groups (Kraus et al., 2012). Indeed, much of the work on SES essentialism has examined the ways in which low- and high-SES individuals differ in their belief that SES is essentialized (Kraus & Keltner, 2013; Mahalingam, 2003). Similarly, Weiner and colleagues have explored the ways in which political ideology motivates different causal attributions for poverty and thus different reactions to those in need financially (Farwell & Weiner, 2000; Weiner et al., 2011). Though not the primary aim of the present research, it nonetheless stands to reason that a person's SES and their political ideology should both (independently) influence their representation of SES as either ascribed or acquired. The cultural models of SES would predict that higher SES individuals should endorse more acquired models of SES, and the work on political ideology and attribution would predict that conservatism should operate the same.

Less attention, however, has examined the role of situational factors that may activate more ascribed or more acquired representations of SES. For example, an individual may apply a more ascribed representation in a political context, but a more acquired one in an interpersonal context (Vanneman & Pampel, 1977). On a more basic methodological level, it is possible that the very indices used to measure SES will lead individuals to activate a more ascribed or acquired representation. For example, income is a relatively continuous measure and also carries

with it the implicit message that income may be achieved by working hard. Thus, income may activate more acquired representations. This possibility has major implications in conducting SES research, as researchers in multiple fields have long debated the utility of indicators such as income versus educational background or social class, which are more categorical measures (e.g., Shavers, 2007). If different indicators do activate different mental representations, this could orient low-SES individuals to think more about either their own individual failings (in the case of an acquired representation) or their resiliency in the face of systematic challenges (as might be the case with an ascribed representation).

Thus, it is important to understand if different indicators of SES activate different representations and their related constellation of beliefs. As alluded to earlier, we hypothesize that income should activate more acquired representations, with a more continuous structure and greater emphasis on one's personal responsibility for their SES identity. Such inference of personal responsibility comes from the idea that income is the direct product of one's ability to work and contribute (Furnham, 1984, Weber, 2002). In contrast, asking perceivers to consider social class should lead to a more ascribed representation, with a discrete structure and more focus on societal forces that produce SES differences in the social hierarchy (Vanneman & Pampel, 1977).

#### **Overview of Studies**

Chapter 2 examines individual differences in mental models of SES and the implications of such mental models on anti-poor prejudice. Study 1 examines variations in the extent to which individuals represent SES as either ascribed or acquired and whether such variation is related to anti-poor prejudice. We also seek to test two potential models derived from the theoretical review for why specific mental models of SES may or may not lead to anti-poor prejudice.

Model 1 tests the basic premise that an ascribed representation results in reduced endorsement of belief in status legitimacy (BSL), which produces less anti-poor prejudice. Model 2 tests the idea that an ascribed representation only results in less BSL and less anti-poor prejudice when belief in essentialism is low; if belief in essentialism is high, then it should result in greater prejudice. Study 2 is a replication-extension of Study 1, with different indicators of prejudice and separate measures for the two mental models of SES representation. Study 3 investigates whether different indicators of SES activate certain mental models of SES. Specifically, we test the hypothesis that social class will activate a more ascribed representation, while income will activate a more acquired representation. Finally, Study 4 is a conceptual replication of Study 3.

#### Study 1

In Study 1, we aimed to examine whether there was significant variation in the extent to which people represented SES as more ascribed or more acquired and whether this variation was significantly related to an explicit measure of anti-poor prejudice. We start with a 1-item measure adapted directly from Deaux and colleagues (1995), along with 1-item measures for related outcomes of SES structure and beliefs of personal responsibility. We also include related measures such as SES-essentialism and perceptions of social mobility to ensure that the ascribed-acquired dimension is distinct. Finally, we also attempt to find an indirect way to assess whether people hold more ascribed or acquired representations of SES.

#### Method

**Participants**: We recruited 256 participants across two subsamples from Amazon's Mechanical Turk. Of these, 65 participants failed the attention check and were thus removed from the final sample (given evidence that removing such participants improves data quality; Buhrmeister, Kwang, & Gosling, 2011), leaving a final sample of 191 participants—85 in subsample A and

106 in subsample B. Except where explicitly stated, participants across the two subsamples completed the same tasks. On average, participants were 32.09 years old (SD = 10.09). A majority of participants (63%) were female. Ethnically, most participants were White (80%), followed by Asian (7%), Black (6%), Latino (4%), or Multiracial (4%).

**Measures**: Participants were first asked to provide responses on a number of explicit items and scales about SES.

Assessing ascribed versus acquired representation of SES: Participants were provided a definition of what it means for a social identity to be ascribed or acquired, which we borrowed directly from Deaux et al. (1995). Specifically, they were told that membership in a group is ascribed if a person does not have to do anything to gain membership to the group. They were also told that an ascribed identity could be one that you are born with or born into. In contrast, membership to a group is acquired if it is something you become. An acquired identity is one, for example, that you do something to attain. They were then asked to consider SES and given some examples to illustrate, such as rich people or blue-collar workers. All participants indicated the extent to which they thought SES was ascribed or acquired on a 7 point Likert scale from 1 = acquired to 7 = ascribed.

Assessing discreteness: Participants were asked about the specific hypothesized outcomes on self-report measures we developed. For discrete or continuous structure, participants were asked to indicate the extent to which they thought of SES as different groups (with examples provided of blue collar or white collar), or as a continuum (with an example of 1-100) on two separate 6-point Likert type scales from 1= not at all to 6 = completely.

Assessing responsibility/controllability: For subsample A, we used a one-item, face-valid measure that we developed to assess perceptions of responsibility for SES group membership. Specifically, participants were asked to indicate the extent to which they believed people were responsible for their SES on a 6-point Likert scale ranging from 1= not at all responsible to 6 = completely responsible. For subsample B, we collected the Protestant Work Ethic subscale of the System Legitimizing Beliefs questionnaire (O'Brien & Major, 2005) as a multi-item measure of perceived personal responsibility. This scale contains 4 items using a Likert-type scale from 1 = Strongly Disagree to 7 = Strongly Agree; A sample item for this measure is, "If people work hard, they almost always get what they want."

Assessing perceptions of SES mobility: We borrowed the adapted lay theories scale assessing perceptions of mobility used by Browman and colleagues (Browman et al., 2017). This is an 8-item measure assessing the extent to which people perceive mobility to be possible within society. Participants were asked to respond to items such as "everyone, no matter who they are, can significantly change their status in society" or "no matter what status a person has in society at one point in their life, they can always change it a lot" on a 6-point Likert scale ranging from 1 = Strongly Disagree to 6 = Strongly Agree. Responses were scored such that higher scores indicated more belief in changeability of social status. The scale exhibited excellent reliability,  $\alpha$  = .92.

Assessing SES-based essentialism: We used the items for SES-based essentialism reported by Kraus and Keltner (2013). This is a 10-item scale with two subcomponents: one for discreteness and one for biological origin. Items for the discreteness subscale included items such as "a child from a higher class can be easily picked out from a group of lower-class

children" and "it is easy to figure out another person's social class just by looking at them". Items for the biological origin subscale included items such as "a person's social class does not change from their social class at birth" and "even after centuries, families will have the same social class as now". Participants responded on a 7-point Likert scale ranging from 1= Strongly Disagree to 7 = Strongly Agree. The overall scale exhibited acceptable reliability ( $\alpha$  = .79), as did the discreteness subscale ( $\alpha$  = .81). The biological determinism subscale, however, had poor reliability ( $\alpha$  = .54). Eliminating the last item in this subscale ("It is impossible to determine one's social class by examining their genes" (reversed)) improves the reliability to  $\alpha$  = .63.

Assessing ascribed versus acquired using an indirect measure: In addition to the self-report one-item measure of the ascribed-acquired dimension, in subsample A we attempted to assess it using an operational task as well. We adapted a categorization task from Isen and colleagues (1992) that assessed the goodness-of-fit of strong and weak exemplars for a superordinate category. We reasoned that such as task might be able to capture individual variation in representations of a social identity as ascribed and acquired. Individuals who hold an ascribed representation should impose a more strongly categorical structure on SES variations, and as a result they should show stronger fit differences for the strong versus weak exemplars; in contrast, those with an acquired representation should show less differences in goodness-of-fit for strong and weak exemplars. In the task, participants were asked to consider occupations that were either strong or weak exemplars of the superordinate category and indicate the extent to which they believed that exemplar to be like their idea of someone who belonged to the superordinate category. For example, one item asked participants to consider how much the typical electrician was like their idea of a working class type of person. However, due to a

programming error, the theoretically critical results for the poor targets were not assessed accurately. As a result, this task will not be discussed further.

Assessing system legitimizing ideologies: We used an adapted 16-item measure borrowed from O'Brien and Major (2005) that includes four items each for the Belief in a Just World (BJW; e.g., "I feel that people get what they are entitled to have"), Protestant Work Ethic (PWE; e.g., "If people work hard, they almost always get what they want"), Belief in Individual Mobility (BIM; e.g., "Our society is an open society where all individuals can achieve higher status"), and Belief in Status Legitimacy (BSL; e.g., "Differences in status between groups in society are fair") scales. Two items from every scale except the Belief in a Just World scale were reverse-coded. Although these scales theoretically all tap into system legitimizing ideologies, they still tap into distinct elements of said ideologies. As O'Brien and Major note, the correlations among these subscales are moderate, ranging from r = .32 to .47 (O'Brien & Major, 2005). Thus, we computed separate indices for each of the subscales in addition to one overall index. Each subscale demonstrated acceptable reliability ( $\alpha$ s = .78, .79, .76, and .76, respectively). The overall index of system legitimizing beliefs also demonstrated excellent reliability,  $\alpha$  = .89.

Assessing anti-poor prejudice: We used a 9-item measure from Stevenson and Medler (1995) that assessed people's attitudes towards the poor. Participants indicated the extent to which they agreed to items such as "People who stay on welfare have no desire to work" and "There are more poor people than wealthy people in prisons because poor people commit more crimes" on a 5-point scale from 1 = Strongly Disagree to 5 = Strongly Agree. The scale exhibited excellent internal reliability,  $\alpha = .91$ .

#### Results

Responses on the ascribed-acquired 1-item measure ranged from 1 to 7 (M = 4.30, SD = 1.50). The distribution of responses indicates an approximately normal distribution, with skewness of -.14 (SE = .18) and kurtosis of -.76 (SE = .35) (See Figure 1). Correlations between the ascribed-acquired dimension, anti-poor attitudes, system justifying beliefs, and demographic variables of interest are presented in Table 1. Only political conservatism was (negatively) correlated with the ascribed-acquired dimension. We then ran a bivariate correlation between the measures for the ascribed-acquired dimension and the related psychological constructs measured. The zero-order correlations are presented below in Table 2. The main hypothesis was that holding an ascribed representation ought to lead to less anti-poor prejudice. Indeed, the results show a negative correlation between ascribed representations and self-reported anti-poor prejudice. Although the strength of the relationship is weak, this is likely due to the imprecision of the 1-item measure. Crude though it may be, this 1-item measure does nonetheless capture meaningful variance in people's self-reported anti-poor prejudice.

We also examined the strength of the relationships between the ascribed-acquired dimension and the discreteness and personal responsibility measures. The ascribed-acquired dimension was significantly related to both of these outcomes. For discreteness, we used two measures: one for endorsement of a discrete structure and one for endorsement of a continuous structure. There was a positive relationship between holding an ascribed representation and perceiving SES groups as discrete. That is, the more ascribed the representation of SES, the more a perceiver would endorse a discrete representation of SES. No relationship emerged between the ascribed-acquired dimension and perceiving SES as continuous, however. For personal responsibility, the ascribed-acquired dimension was also significantly correlated with the 1-item

personal responsibility measure in subsample A, as well as the PWE subscale in subsample B. In both cases, a more ascribed representation was negatively associated with perceptions of personal responsibility for SES.

In addition, we wanted to establish convergent and discriminant validity with related constructs, particularly lay theories and SES-essentialism (and its subscales). The ascribed-acquired dimension was weakly correlated with the SES-essentialism measures, and moderately correlated with the lay theories of social status measure. Regarding SES-essentialism, holding an ascribed representation of SES was correlated with overall SES essentialism, r(191) = 0.15, p = .044. However, this seems to be particularly driven by the association with biological essentialism. That is, the more ascribed a representation of SES a person has, the greater the belief they have in biological essentialism of SES. Regarding lay theories of social status, there was a moderate negative correlation between the ascribed-acquired dimension and lay theories of social status. The more ascribed the representation of SES, the less participants believed that social status was a malleable characteristic.

Together, these correlations suggest that the ascribed-acquired dimension is related to similar constructs. However, the strength of these relationships indicates that while in the same family of psychological phenomena, the ascribed-acquired dimension is distinct from the others. To further substantiate this, we examined the unique proportion of variance explained by the ascribed-acquired dimension in relation to anti-poor prejudice by conducting a partial correlation between the two variables, controlling for lay theories of social status and both dimensions of SES-based essentialism. The correlation between the ascribed-acquired dimension and anti-poor prejudice remained significant even after controlling for lay theories of social status and overall

SES essentialism, r(187) = -0.25, p = .001. To examine the relative contribution of each construct, we entered all three items into a simultaneous multiple regression. Results showed that all three predicted unique variance in anti-poor attitudes. The ascribed dimension negatively predicted anti-poor attitudes (standardized  $\beta = -0.24$ , t(187) = -3.48, p = .001), while lay theories of social status (standardized  $\beta = 0.29$ , t(187) = 4.00, p < .001) and SES-essentialism (standardized  $\beta = 0.36$ , t(187) = 5.21, p < .001) both positively predicted anti-poor attitudes.

# **Testing mental models of SES:**

To test the model where ascribed representations lead to less prejudice as result of decreases in beliefs of status legitimacy, we used Model 4 of Hayes's (2013) PROCESS Macro, which allows for testing whether the relationship between a predictor X and an outcome Y is mediated through a variable M. In this model, an ascribed representation of SES (X) might result in less anti-poor prejudice (Y) as a function of decreased perceptions of status legitimacy (M). Results from this model indicated that there was a significant overall indirect effect of the ascribed-acquired dimension on anti-poor prejudice through BSL,  $\beta = -1.08$ , SE = .03, 95% CI [-0.166, -.058]. Possessing an ascribed representation predicted lower beliefs in BSL,  $\beta = -0.26$ , SE = .06, p < .001, 95%CI [-0.371, -0.143]. Belief in Status Legitimacy in turn predicted greater anti-poor prejudice,  $\beta = 0.42$ , SE = .04, p < .001, 95%CI [0.339, 0.500]. Finally, inclusion of BSL as a predictor reduced the relationship between an ascribed representation and anti-poor prejudice to non-significance, suggesting mediation,  $\beta = -0.06$ , SE = .03, p = .081 (see Figure 2). These results held even when controlling for participant's subjective SES and political conservatism (overall  $\beta$  = -0.06, SE = .02, 95% CI [-0.107, -.027]. We also tested the second model whereby an ascribed representation only produces less anti-poor prejudice if belief in

essentialism is low. However, there was no significant interaction between the ascribed-acquired item and SES essentialism on beliefs of status legitimacy (p = .22).

### **Discussion**

The results from Study 1 indicate that there is a meaningful amount of variation across persons in terms of whether they represent SES as more ascribed or acquired. This broad conceptualization of SES as either ascribed or acquired was related in expected ways to perceptions of the structure of SES and the level of personal responsibility for SES group membership. With respect to the structure of SES, we originally hypothesized that an ascribed representation ought to be correlated with a more discrete structure while an acquired representation would show the inverse, with a more acquired representation resulting in a more continuous structure. Our results showed support for the former hypothesis, but not the latter. One possibility why an acquired representation does not seem to correlate with a more continuous structure of SES might that structure is not something perceivers consider at all if they have an acquired representation. That is, the structure of SES is not something people consider at all if they do not think of SES as ascribed. Rather, other factors such as personal responsibility may play a more outsized and important role in mental representations of SES. Indeed, we find that although both the discreteness and personal responsibility outcomes were related to the overall ascribed-acquired dimension, only personal responsibility was related to anti-poor prejudice. It may be that personal responsibility is particularly important when individuals are evaluating others on the basis of SES, but to the extent that individuals do think of SES as ascribed, it brings to mind the categorical and hierarchical nature of SES (thus attenuating the influence of the personal responsibility beliefs).

Although the ascribed-acquired dimension was significantly related to both lay theories and essentialism, the correlation coefficients were weak to moderate, suggesting that they are distinct constructs. With respect to SES-essentialism in particular, the positive association between the ascribed-acquired dimension and SES-essentialism would be worrisome if each of these constructs had the same relationship with anti-poor prejudice. However, the results show that while SES-essentialism is positively related to anti-poor prejudice, the ascribed-acquired dimension is negatively associated with anti-poor prejudice. The different directions of these relationships help to establish the distinctiveness of the ascribed-acquired dimension from SESessentialism. It also suggests the intriguing possibility that there are two forms of ascribed representations – one which includes high levels of belief in SES-essentialism (e.g., the idea that SES reflects biological groupings of people based on their innate, biogenetic levels of ability), and one which includes low levels of belief in SES-essentialism (e.g., the idea that SES reflects groupings of people who are locked into generational patterns for situational/historical reasons and not on the basis of biologically determined abilities). The former would suggest greater antipoor prejudice despite holding an ascribed representation, while the latter would suggest less anti-poor prejudice. Although we did not find this relationship in our data, it remains a theoretically viable possibility – perhaps one that hinges on the particular sociohistorical context.

Most importantly, such variation in representing SES as ascribed or acquired is related to SES-based prejudice. As hypothesized, participants with a more ascribed representation of SES reported less anti-poor prejudice. Moreover, this correlation held true even controlling for lay theories of social status and SES-essentialism – both theoretically similar constructs. This suggests that the ascribed-acquired dimension is capturing some unique proportion of variance in

anti-poor prejudice above and beyond people's lay theories regarding the malleability of social status or their beliefs in SES-essentialism.

The results from Study 1 also offer some insight as to why an ascribed representation might lead to less anti-poor prejudice. Having an ascribed representation of SES is related to lower beliefs in status legitimacy, which are related to greater levels of anti-poor prejudice. Furthermore, endorsement of these beliefs mediates the relationship between holding an ascribed representation and anti-poor prejudice. However, before making broader claims about the nature of SES-based prejudice, we wanted to replicate the general pattern of findings.

# Study 2

Study 2 serves as a conceptual replication of Study 1 using two separate 1-item measures to assess endorsement of both ascribed and acquired representations of SES. This allows us to better understand whether the two mental models are separately related to anti-poor prejudice and related constructs, or whether it is the relative difference in endorsement of the two constructs that matters. Additionally, we use two new measures of prejudice – one implicit measure and a different behavioral measure of anti-poor prejudice.

Using these two different measures of intergroup bias allows for a wider window into the question of how mental models of SES relate to anti-poor prejudice. Prejudicial attitudes have affective, behavioral, and cognitive components, all of which may exert separate influences on a perceiver's psychology (e.g., Breckler, 1984). The measure used in Study 1 requires participants to consciously introspect what their attitudes towards the poor are and report these thoughts and feelings on a questionnaire. However, these thoughts and feelings may not necessarily manifest

in behavior. Thus, we aimed to see whether people's mental models of SES might also correlate with a behavioral measure of prejudice.

In a similar vein, more recent work has examined how an individual's attitude has both automatic and controlled elements (Ranganath, Smith, & Nosek, 2009). An interesting consequence of this dichotomy is that measures of automatic/implicit bias and explicit bias are often only weakly correlated (e.g., Hofmann, Gawronski, Gschwender, Le, & Schmitt, 2005). Moreover, implicit and explicit measures of prejudice often independently predict behavior (Greenwald, Poehman, Uhlmann, & Banaji, 2009). Thus, investigating whether people's mental models of SES are related to implicit bias may be important in understanding when and how representations ultimately influence intergroup attitudes and behaviors.

### Method

**Participants**: We recruited an initial sample of 172 participants from Amazon's Mechanical Turk, aiming to end up with a final sample of roughly 150 participants. After eliminating 32 participants who failed the attention check, the final sample consisted of 140 participants. The average age of all participants was 40.05 (SD = 13.17) and their mean subjective SES was 4.61 (SD = 1.51). Participants were 54% women and mostly White (87%), followed Asian (5%), Black (4%) and Hispanic (4%). Of the 140 participants in the final sample, a subset (N = 91) completed the optional implicit categorization task and subsequent behavioral donation task.

**Procedure**: Participants first completed self-report measures for their representations of SES, followed immediately by the explicit measures of prejudice against the poor (i.e., the economic beliefs scale and feeling thermometers). Next, participants were given the opportunity to earn a \$1 bonus by completing a categorization task – the brief-IAT. After completing the brief-IAT,

participants were then thanked and told their bonus would be posted soon thereafter. They were also given the opportunity to donate some portion of their bonus to a food pantry serving the needs of people living in high-poverty communities. We also included additional statistics with these instructions, noting that food pantries can serve the equivalent of more than 160,000 meals every day, and that every dollar donated equaled approximately 11 meals for low-income individuals.

#### **Measures:**

Measuring endorsement of ascribed and acquired mental models: In order to assess whether the two distinct types of SES representations separately influence results or if it is the relative difference between the two, we used two 1-item measure in order to separately assess endorsement of ascribed and acquired representations of SES. For both the ascribed and acquired representation measures, participants were provided the same definition of an ascribed (or acquired) identity used in Study 1 and asked to what extent they agree with the statement that SES is an ascribed (or acquired) identity on a Likert scale from 1 = Strongly Disagree to 7 = Strongly Agree. We also computed a difference score to examine the relative difference in endorsement of the two types of representation, a contrast that was inherent in the single-item measures previously used in Study 1.

**Measuring lay theories**: Participants completed the same lay theories of social status scale as in Study 1.

**Measuring system justifying ideologies**: The same 16-item scale with the 4 subscales used in Study 1 was used in this study as well.

Measuring attitudes toward the poor behaviorally: Participants who completed the optional speeded categorization task (i.e., the Brief IAT) were told that they could choose to donate any portion of their \$1 bonus to a food pantry serving the needs of people living in high-poverty communities. Similar measures of helping behavior have been used in previous studies (e.g., Berman & Small, 2012).

**Measuring explicit anti-poor prejudice**: To assess explicit anti-poor prejudice, we used feeling thermometers, which ask participants to indicate how warmly they feel towards the poor on a sliding scale from 0 = not at all to 100 = very. We also measured feelings towards the middle class and rich on the same scale in order to compute difference scores and thus control for individual differences in overall evaluation. We also included the 9-item scale used in Study 1 (Stevenson & Medler, 1995).

Measuring implicit anti-poor prejudice: In addition to the explicit and behavioral antipoor prejudice measures, we also asked participants to complete a brief-Implicit Association Test
(brief-IAT; Sriram & Greenwald, 2009) assessing their implicit intergroup bias against the poor.

The brief-IAT is an adaptation of the traditional IAT (Greenwald, McGhee & Schwartz, 1998),
which is a well-validated measure of implicit bias. In the brief-IAT, participants are provided
two focal categories at the top of the screen in each block of trials. They are also shown sample
stimuli that belong to each category. For "poor", we used visual stimuli such as pictures of
people in poverty (e.g., homeless people, people wearing raggedy clothes). For "bad", we used
the same stimuli as in previous work on implicit attitudes (e.g., "murder"; Greenwald et al.,
1995). Participants are instructed to press one key (i.e., "I") if the stimulus presented belongs to
one of the focal categories, and a separate key (i.e. "E") for any other kind of stimulus. After

participants press the continue key, they are then shown a screen with only the two focal categories at the top. For example, in the present study, participants might see "poor" and "bad" at the top of the screen. Various stimuli then are presented on screen for participants to categorize according the previous instructions provided. In the next block of trials, the focal categories are changed (i.e., from "poor/bad" to "poor/good"). The brief-IAT is scored by taking the average response latency for trials from the blocks with stereotypically congruent pairings (i.e., "poor/bad") and subtracting it from the average response latency from the stereotypically incongruent block (i.e., "poor/good").

### Results

Means and standard deviations for all variables are presented in Table 3. We first sought to examine whether the relationships observed in Study 1 among mental representations, belief in status legitimacy, and attitudes towards the poor replicated in this new sample. Replicating Study 1, ascribed representations were negatively associated with both status legitimacy beliefs and negative attitudes towards the poor (see Table 4). This same relationship exists when examining the relative difference in endorsement for an ascribed or acquired representation. The opposite patterns are also significant when using just the acquired representation measure. Because there was no difference in significance depending on which measure of mental representation is used, all subsequent analyses involving mental representation will use the relative difference score to mirror Study 1 unless otherwise noted. Finally, using Model 4 from Hayes' (2013) PROCESS Macro, we replicate the mediational model tested in Study 1 where the relationship between an ascribed representation of SES results in less SES-prejudice is accounted by a reduction in beliefs in status legitimacy. The 95% confidence interval for the test of the overall indirect effect

does not include zero,  $\beta = -.11$ , SE = .028, 95%CI [-.168, -.059]. Inclusion of BSL diminishes the strength of the relationship between ascribed representations and negative attitudes towards the poor to non-significance,  $\beta = .017$ , p = .44. Controlling for participants' subjective SES and political conservatism does not significantly change this effect, overall  $\beta = -.06$ , SE = .016, 95%CI [-.094, -.031].

Turning next to the feeling thermometers, there was no direct correlation between representations of SES and feelings of warmth towards the poor, r(140) = .08, p = .35. However, more ascribed representation did predict less warm towards both the middle class (r = -0.225, p = .008) and rich (r = -0.383, p < .001). To probe this relationship further, we constructed a difference score between feelings towards the poor versus the middle class and rich as two separate indices. Mental representations of SES were negatively correlated with both these indices (rs = -0.28 and -0.385,  $ps \le .001$ ), indicating that a more ascribed representation resulted in less of a difference in evaluation between the poor and the other two SES categories.

Looking at the implicit measure of negativity towards the poor, we first calculated a d-score for each participant by taking the average latency in stereotypically congruent (i.e., Poor/Bad) blocks and subtracting the average latency in stereotypically incongruent block (i.e., Poor/Good). Higher scores indicate more implicit positivity towards the poor. Overall, participants had negative implicit attitudes towards the poor (M = -0.63, SD = 0.42), t(90) = -14.90, p < .001. However, this implicit negativity was not correlated with ascribed or acquired representations of SES, r(90) = .01, p = .92, nor the feeling thermometer for the poor or the difference scores between the poor and the other two SES groups, all ps  $\geq$  .65, and only weakly

associated with the economic beliefs scale, r(90) = -0.21, p = .047. This implicit measure was not correlated with any of the other psychological or demographic variables of interest.

Finally, for the behavioral donation task, there was no significant correlation between representations of SES and the amount donated, though the direction of the relationship was as hypothesized, r(91) = .11, p = .30. The donation amount was, however, correlated with feelings of warmth towards the poor, r(91) = .28, p = .006. The greater the positivity towards the poor, the more people were willing to donate.

### **Discussion**

The results of Study 2 confirm that representations of SES are robustly related to explicit negative attitudes towards the poor. Importantly, we replicate the pattern of relationships observed in Study 1 between mental representations of SES, belief in status legitimacy, and explicit anti-poor prejudice. Moreover, the additional measures suggest a few additional pieces of evidence regarding the relationship between people's mental representation and anti-poor bias. First, the new feeling thermometer measure of attitudes towards the poor provides additional evidence that representations of SES relate to people's SES attitudes. If a person endorsed an ascribed representation of SES, then they generally exhibited less difference in their feelings towards the poor versus the middle-class or the rich.

Second, we observed no evidence that representations of SES were associated with people's implicit attitudes towards the poor. Given this lack of association, one possible interpretation is that representations of SES are the result of more elaborated processes and thus are observable only on explicit measures of attitudes towards the poor (though we make this observation with caution). A second possibility is that the BIAT is not sufficiently sensitive to

meaningful variations in implicit attitudes towards the poor. Because the BIAT captured general poor/bad versus poor/good attitudes, this might simply reflect cultural knowledge that poor individuals are evaluated negatively (Arkes & Tetlock, 2004). In addition, the negativity reflected in this association might be based on largely sympathetic beliefs that associate being poor with deprivation, injustice, or adversity, rather than prejudice (cf. Uhlmann, Brescoll, & Paluck, 2006). A more nuanced version of the BIAT that assesses associations between poor people and blame or praise (as indices of attributions for poverty) may better capture important variation that relate to perceivers' representation of SES.

Third, although different measures of anti-poor bias correlated with one another, they were not all intercorrelated and the relative strength of the correlations was weak. This coheres with the observation made that attitudinal, behavioral, and cognitive aspects of prejudice operate in distinct fashion (e.g., Breckler, 1984). If we take the mental representations to be more cognitive, then it makes sense that they should be related most strongly to evaluations of the attitude object and more distally to behaviors (e.g., Ajzen, 2011). Our results also conceptually replicate those of Zucker and Weiner (1993), who find that interpersonal helping behaviors were related to people's affective responses, but not their attitudes.

However, given the correlational nature of these analyses, we cannot be certain whether activating an ascribed or acquired representation truly leads to these declines in status legitimizing beliefs. It may be entirely possible that the opposite pattern is true as well – that shifting around perceptions of status legitimacy might lead to differential activation of ascribed or acquired representations. To examine the causal relationship between these variables, we attempt to experimentally manipulate ascribed and acquired representations in Study 3.

## Study 3

In Studies 1 and 2, we demonstrate that the ascribed-acquired dimension of social identity is related to prejudicial attitudes towards the lower SES groups. However, as noted at the outset of the chapter, people might shift between ascribed and acquired representations of SES (Vanneman & Pampel, 1977) depending on context and situational factors. With respect to context, interpersonal situations (e.g., coming into contact with a homeless person) should activate more acquired representations of SES, while considering broader, national situations (e.g., elections) should activate more ascribed representations (Vanneman & Pampel, 1977).

With respect to situational factors, one potential determinant of whether an acquired or ascribed representation is activated is the particular indicator of SES that is salient. Specifically, measures of income implicitly carry beliefs about one's personal responsibility and agency for one's position in society – a more acquired representation of SES (Furnham, 1984; Weber, 2002). Thinking of social class invokes a more relational, rank based perspective of SES – one that may be related to having an ascribed representation of SES (Kraus et al. 2013, Lucal, 1994).

One caveat to consider is that in addition to shifting people's mental representation of SES, thinking in terms of social class and income may also shift the relative abstractness or concreteness of perceivers' mindsets. Thinking of social class may lead to thinking about how a target ranks relative to others in a social hierarchy – which suggests a more abstract mindset (Kraus et al., 2013; Trope & Lieberman, 2010). Conversely, income invites the perceiver to evaluate the individual and their actions – a more concrete mindset. Depending on the mindset, a person might be more or less inclined to consider the social hierarchy and whether it supports order or perpetuates inequality. Similar effects of abstract or concrete mindsets have been shown to influence how people construe multiculturalism – as either a norm and goal worth adhering to

or as a threat (Yogeeswaran & Dasgupta, 2014). Social class may decrease anti-poor prejudice by shifting perceivers into a more abstract mindset and consider the contextual (and uncontrollable) factors that may lead to a person's position in society (cf. Luguri, Napier, & Dovidio, 2012); thinking of income may increase anti-poor prejudice by shifting perceivers into a more concrete mindset and focus their attention on (ostensible) personal traits that determine one's position in society (Luguri et al., 2012).

Thus, considering how using social class or income as indicators of SES may provide insights into how people think about SES—insights that may have important methodological considerations. Because there has been little work examining the relative influence of these indicators in evaluation, we forward several hypotheses as to how they may influence perceivers' cognition. First, social class and income may activate ascribed and acquired representations, respectively. We were particularly interested in the structural outcome (discrete vs. continuous), since no work to our knowledge has tested whether this dimension influences anti-poor attitudes. We hypothesized that thinking of income would lead perceivers to endorse a more continuous structure of SES, whereas social class would lead to a more discrete structure. We also test the specific hypothesis that social class would significantly differ from both the income and control conditions, assuming that the cultural default in the United States is to consider SES as something within one's personal control (Furnham, 1984; Lucal, 1994). Thus, it may be that any differences observed in anti-poor prejudice and related variables are specifically in the social class condition.

#### Method

**Participants**: We recruited an initial sample of 237 participants from Amazon's Mechanical Turk. Of these 237 participants, 58 participants failed the attention check, leaving a total of 179 participants. Participants were roughly split between men (45%) and women (54%) with one participant not reporting their gender. On average, participants were 33.99 years old (SD = 10.35) and of moderate subjective SES (M = 5.13, SD = 1.43). Most participants were White (76%), following by Black (7%), Asian (7%), Hispanic (5%), and Multiracial (3%).

# Measures and manipulations:

Manipulating SES indicators: We used a sorting task where participants were asked to sort faces. Participants were randomly assigned to one of three conditions: (1) to think of the targets' income; (2) to think of the target's social class; or (3) to think of the target's personality. We chose personality as the control condition because it is not immediately perceptually obvious, similar to social class or income. Specifically, all participants were told that as humans, we sometimes categorize people on things that are hard to see and that for the following task, they would be asked to sort the faces along the relevant criterion provided. There were 12 faces in total, drawn from the Chicago Face Database (CFD; Ma, Correll, & Wittenbrink, 2015). We included three faces for each race (Black or White) by gender (male or female) combination. There was a total of 10 boxes that they could drag and drop the faces into, in order to do the sorting task. Participants were told to feel free in using as many or as few boxes as they desired and that the boxes would change size to adapt to the number of faces in the box.

Measuring lay theories: Participants completed the same lay theories of social status scale as in Study 1. The scale exhibited excellent reliability,  $\alpha = .89$ .

Measuring system justifying ideologies: The same 16-item scale with the 4 subscales used in Study 1 was used here. All subscales exhibited acceptable reliability,  $\alpha$ s = .82, .72, .73, and .74 for BJW, PWE, BIM, and BSL, respectively.

**Measuring anti-poor prejudice:** We used the same 9-item scale as in Study 1. The scale exhibited good reliability,  $\alpha = .87$ .

#### **Procedure:**

After consenting to participate in the study, all participants did an initial sorting task. In this task, they were told that people naturally categorize the social world and that one of the ways that people did so was on the basis of gender. They were then asked to consider gender when sorting the faces provided into boxes. Additionally, participants were told they should feel free to use as many or as few boxes as they desired, and that it was not a problem if the faces were crowded into a box. This initial gender sorting task served to ensure that participants understood the subsequent and crucial task.

After the gender sorting task, participants were randomly assigned to one of the three conditions. All conditions had the same starting instructions, noting that sometimes people categorize based on things that were hard to detect. Crucially, they were asked to consider either social class, income, or personality. Finally, participants completed measures that assessed their belief or agreement with system-justifying ideologies, lay theories of social status, SES-essentialism, and anti-poor prejudice.

## Results

*Main analyses*: To get at our central question of whether different indicators of SES influence anti-poor prejudice, we submitted anti-poor prejudice scores to a one-way ANOVA

with condition as the between-subjects factor. The results from the omnibus ANOVA revealed a significant effect of condition, F(2,176) = 3.10, p = .047,  $\eta^2_p = .034$ . Those in the social class condition exhibited the lowest amount of anti-poor prejudice (M = 2.21, SD = 0.84) relative to the income (M = 2.47, SD = 0.72) and control (M = 2.53, SD = 0.87) conditions. A planned contrast examining the difference between the social class condition versus the other two conditions indicated that the social class experimental condition was significantly different from the other two conditions, t(176) = 2.47, p = .014. Controlling for subjective SES and political conservatism did not significantly alter these results, F(2,176) = 3.37, p = .037,  $\eta^2_p = .038$ .

To test whether this reduction in anti-poor prejudice was the result of a decrease in beliefs of status legitimacy, we again used Model 4 of Hayes' (2013) PROCESS Macro to test for mediation (see Figure 3). We dummy coded the social class condition as 1 and the other two conditions as 0, for the purposes of the regression analyses. As a reminder, Model 4 allows for testing whether the relationship between a predictor X and an outcome Y is mediated through a variable M. Results revealed a significant overall indirect effect of belief in status legitimacy,  $\beta$ = -0.21, SE = .08, 95%CI [-0.368, -0.063]. Being in the social class condition significantly decreased beliefs in status legitimacy,  $\beta = -0.47$ , SE = .18, p = .010, 95%CI [-0.820, -0.116]. Belief in status legitimacy predicted more anti-poor prejudice,  $\beta = 0.44$ , SE = .04, p < .001, 95%CI [0.358, 0.527]. Importantly, inclusion of beliefs in status legitimacy reduced the strength of the relationship between being in the social class condition and anti-poor prejudice to nonsignificance,  $\beta = -0.11$ , SE = .10, p = .29, 95%CI [-0.313, 0.095]. These results hold whether controlling for lay theories of social status and overall class essentialism,  $\beta = -0.16$ , SE = .07, 95%CI [-0.305, -0.039] or demographic variables like political conservatism and subjective SES,  $\beta$  = -0.16, SE = .06, 95%CI [-0.289, -0.058].

Ancillary findings: In addition to our main analyses, we wanted to examine whether different conditions would lead to change in the absolute number of boxes used as a potential index of the structural outcome of SES representations. We hypothesized that those in the income condition might use more boxes (suggesting a more continuous structure), while those in the social class condition would use less (suggesting a more categorical structure). We calculated the total number of boxes that participants used in each condition and then submitted this measure to a one-way ANOVA with condition as the between-subjects factor. Results indicate a significant effect of condition, F(2,176) = 3.38, p = .036,  $\eta^2_p = .037$ . Those in the social class condition used the most number of boxes (M = 4.58, SD = 2.97), followed by the control condition (M = 4.07, SD = 2.42) and then the income condition (M = 3.42, SD = 1.96). Pairwise comparisons reveal that those in the social class condition used more boxes than those in the income condition,  $M_{diff} = 1.16$ , SE = .45, p = .031. No differences emerged between the income and control conditions  $M_{diff} = -0.65$ , SE = .46, p = .46, or the social class and control conditions,  $M_{diff} = .51$ , SE = .46, p = .80.

## **Discussion**

The findings from this study suggest that different SES indicators influence perceivers' levels of anti-poor prejudice. Specifically, it seems that having participants consider "social class" leads them to self-report less anti-poor prejudice. That the income condition did not significantly differ from the personality control condition for any of the key variables of interest suggests that people may generally think of SES in terms of ability and income. In other words, perceivers see SES group membership as something determined by personal responsibility at baseline, a construct that is associated with more anti-poor prejudice. However, it is nonetheless

possible that the personality control condition also caused people to think more in terms of intrinsic stable characteristics in a similar fashion to the way that thinking of income and personal ability might. Additionally, personality is also a more continuous variable (e.g., more or less extraverted), similar to income. In contrast to these two conditions, prompting people to think of SES in terms of social class seems to diminish levels of anti-poor prejudice.

Looking at the number of total boxes that participants used to sort the faces, we found that those in the social class condition unexpectedly used more boxes to sort the faces versus those in the income condition. Focusing particularly on the discreteness outcome, we initially hypothesized that those who sorted based on social class might generate a few solid groups into which target faces fell (e.g., lower, middle, and upper class), while those who sorted on the basis of income would use more boxes to sort the faces in a more continuum-like fashion. Instead, we found the opposite pattern; those who considered social class used more boxes, while those who considered income used less.

Retrospectively, this variable may be more equivocal as an indicator of participants' mental models of SES. Because there were both Black and White, as well as male and female faces, asking participants to think about social class may have led participants to think about other ascribed distinctions (i.e., race and gender), resulting in a tendency to sort the faces into a greater number of distinct boxes (Kraus & Stephens, 2012), but for reasons related to ascribed thinking. In contrast, thinking of income may have led participants to "collapse across" these other ascribed identities and thus to use fewer boxes to sort faces.

Although the effect of the social class indicator manipulation was unclear, activating different SES indicators had a clear influence on beliefs in status legitimacy. Participants who

were in the social class condition showed lower beliefs in status legitimacy than those in the income or control conditions. We had originally expected to use participants' categorization performance as an indicator of ascribed/acquired representations, testing whether it mediated changes in status legitimacy beliefs. However, as noted above, the categorization task provided results that were, in hindsight, less than clear-cut in reflecting respondents' active mental models. Testing whether SES indicators influence status legitimacy beliefs via their impact on mental models of SES would require a less equivocal index of acquired vs. ascribed mental models. We address this issue in Study 4.

# Study 4

#### Method

**Participants**: We recruited 357 participants from Amazon's Mechanical Turk. After eliminating participants who failed the attention check or indicated they were not careful while completing the study, the final sample consisted of 257 participants. Most participants were White (79%), followed by Black (8%), Hispanic (5%), Asian (4%), or Multiracial (3%). Roughly half of all participants were female (54%), and the mean age was 33.70 (SD = 11.10).

## **Measures and manipulations:**

Manipulating SES representations: To manipulate representations of SES, participants were asked to categorize target faces that differ in both race and gender, similar to the stimuli used in Study 3. A different set of faces were used, but drew from the same database of faces (Ma, Correll, & Wittenbrink, 2015). Faces were constrained to be similar in both age and attractiveness. However, instead of having participants sort the target faces into boxes, participants were randomly assigned to categorize the faces using either (1) a sliding scale for

possible current income; (2) multiple-choice items reflecting four social classes (lower class, working class, middle class, upper class); or (3) to determine whether there is a red dot on a target's face or not. We included a different control condition that involves a discrete categorization (unlike the personality task used in the previous experiment, which might invite a more continuous assessment) to assess whether people truly think in terms of income at a baseline, or if different dimensions of categorization simply invite more or less of a discrete way of thinking more broadly.

Measuring activation of ascribed and acquired mental models: We used the 1-item measure of ascribed or acquired mental models as used in Study 1. We also included 1-item measures to assess the structure of SES representation as more or less discrete and the importance of personal responsibility for SES identity.

**Measuring lay theories**: Participants completed the same lay theories of social status scale as in Studies 1 and 2.

**Measuring system justifying ideologies**: The same 16-item scale with the 4 subscales used in Studies 1 and 2 was used here.

Measuring anti-poor prejudice: In addition to measuring people's attitudes towards low-SES individuals using the same scale as in Studies 1 and 3, we assessed the extent to which these mental representations influence more consequential dependent variables. To do so, we examined support for policies that are designed to benefit those with a low-SES identity. Given the political nature of such policy items, we generated four statements that aligned with liberal ideology and four statements that aligned with conservative ideology. Liberal items include, "To what extent would you support increasing public assistance funding to low-SES individuals?",

"To what extent would you support increasing Medicaid to cover more poor people?"; "To what extent do you support increasing the federal minimum wage?" and "To what extent do you support increasing tax cuts for the poorest people in society?" Conservative items asked participants to indicate the extent to which they supported, "decreasing taxes and regulations on business in an effort to help them grow and hire more people"; "requiring poor people to be actively looking for work in order to receive government assistance"; "replacing cash assistance programs with mental health and re-employment assistant services"; "giving more assistance (such as more tax breaks or federal grants) to churches and religious institutions so they can do more work in fighting poverty". Participants' level of agreement with each policy was assessed using a 7-point Likert scale from 1 = not at all to 7 = completely.

Measuring conservatism: We used three separate 1-item measures to capture different elements of conservatism: fiscal, political, and social. These items hung together well in an overall index of conservatism ( $\alpha$  = .90), so analyses involving conservatism use the overall index instead of each separate measure.

**Procedure**: After giving consent to participate in the study, participants were randomly assigned to one of three conditions. In each of the experimental conditions, they were told that we were interested in seeing how people used less obvious social categories in judge others—social class in one condition and income in the other. Those in the control condition were told to consider facial features, particularly whether there was a red dot on the person's face as the basis for categorization. In all three conditions, the same faces were used, faces were presented one at a time, and all faces were only shown once. For the control condition, two sets of images were

made (one with red dots on the face and one without); which face was shown was randomized within face pair.

### Results

We first conducted a factor analysis to ensure the policy items came out as two separate indices. A maximum likelihood extraction with a direct oblimin rotation confirmed a two-factor structure,  $\chi^2$  (13) = 46.30, p < .001. The liberal policy index had good reliability ( $\alpha$  = .85), and the conservative policy index had acceptable reliability ( $\alpha$  = .66). The means, standard deviations, and corresponding inferential statistics for all dependent variables are presented in Table 5.

We hypothesized that we would replicate the results from Study 3 on the attitude and policy dependent variables, such that the social class condition would show decreases in negative attitudes towards (or more policy support for) the poor. However, results revealed no significant effect of the SES indicator manipulation on explicit negative attitudes towards the poor, F(2,254) = 2.49, p = .085,  $\eta^2_p = .019$ . Similarly, there were no significant effects of the SES indicator manipulation on support for liberal policies to alleviate poverty, F(2,254) = 2.24, p = .108,  $\eta^2_p = .017$ .

We also tested for moderation by conservatism or subjective SES for all dependent variables because previous work has shown that people's subjective SES and political ideology influence their reactions to low-SES targets (Cozzarelli et al., 2001; Kraus & Keltner, 2013; Weiner et al., 2011). We used dummy codes with the focal condition coded as 1, and the other two conditions coded as 0. For example, when testing the effect of being in the social class condition, we coded the variables as social class condition = 1, and the other two = 0. There was

no significant moderation of condition by either subjective SES or conservatism for either the anti-poor attitudes or liberal policy support dependent variables,  $ps \ge .24$ . For support for conservative policies, however, while there was no main effect of condition on support for conservative policies, F(2,254) = 0.06, p = .94,  $\eta^2_p < .001$ , there was a significant interaction between the income condition dummy variable and participant's subjective SES,  $\theta = .23$ , t(254) = 2.69, p = .008. As depicted in Figure 4, low SES individuals in the income condition showed less support than high SES individuals for conservative policies to alleviate poverty (p = .002). Participants' SES did not moderate the level of support for conservative policies in the other two conditions (p = .51).

Finally, we originally hypothesized that any reductions in prejudice would be mediated by activation of a more *ascribed* representation, which should then lead to a reduction in beliefs in status legitimacy. However, given that the significant effect of SES manipulator condition on support for conservative policy a) was moderated by participants' subjective SES and b) occurred in the income condition as opposed to the social class condition, we conducted exploratory analyses to see whether this shift in support for conservative policies was mediated by either activation of a more *acquired* representation (and its related discreteness and personal responsibility outcomes) or more directly via reductions in status legitimacy beliefs (as observed in Study 3). To test this, we first examined whether the interaction between the income-based categorization condition and participant's subjective SES showed similar differences on activation of SES representation, its related discreteness and personal responsibility outcomes, or BSL. However, none of these interactions were significant (all ps > .40), discounting all of these variables as potential mediators to explain the interaction effect of income and subjective SES on support for conservative policy items.

#### **Discussion**

The results from Study 4 failed to replicate the effect that priming social class could reduce anti-poor prejudice. If anything, the results suggested that priming *income* could decrease anti-poor prejudice (and increase support for liberal policies addressing poverty), though these effects were marginal. We also tested to see whether the effects of the SES indicator manipulation were moderated by participant's subjective SES or political ideology—both previously identified as important individual differences variables. Results showed that among participants who were asked to categorize based on income, support for conservative policies to address poverty received greater support from higher SES participants, but lower support from lower SES participants.

That this difference occurred in the income condition was surprising, since we originally hypothesized that any increases in support might occur in the social class condition. The difference by subjective SES was less surprising, however. Previous work has shown that subjective SES is a potent predictor of support for policies that redistribute wealth from high-to-low SES individuals (Brown-Iannuzzi, Lundberg, Kay, & Payne, 2014). The conservative policies might have allowed higher SES individuals to feel good about retaining their own material resources while advocating for something to be done, while lower SES individuals would likely perceived these policies to be ineffective. This reasoning suggests that belief in status legitimacy might be a likely candidate to explain this effect, but we found no evidence that the income condition × subjective SES interaction influenced beliefs in status legitimacy.

There are several different reasons why Study 4 failed to conceptually replicate the results of Study 3. One factor might have the procedural differences between the two studies that

differentially highlighted the salience of race. Participants in Study 3 were given all the target faces at once to sort into any number of boxes they thought were needed. This may have led participants to consider how race plays an important factor when having to sort different kinds of people together into distinct groups (especially in terms of SES). In Study 4, participants were shown faces one at a time and asked to categorize the target face in terms of race or social class. Within this paradigm, race differences may have seemed more salient when considering specific incomes rather than simply what SES group the target was likely to belong to. Another factor might be that the tasks themselves were too artificial and unnatural for participants. Categorizing others in the social world is a relatively automatic process

These are admittedly speculative and post-hoc rationalizations, but they do suggest a potential avenue for future research. It may be key to remove race as a salient factor in the manipulations to examine whether manipulating SES indicators per se influences people's attitudes towards the poor. For example, we could prime either social class or income by simply having participants fill out a survey with numerous items referencing either income o social class and examine their resulting attitudes towards the poor. Similar manipulations have been used in the stereotype threat literature to make gender or race salient (e.g., Steele & Aronson, 1995). Such studies would have potential methodological implications, especially when researchers choose how to ask people about their SES background.

# **Interim Summary**

The first two correlational studies show that there is meaningful variation in representations of SES and that such variation is correlated with anti-poor prejudice.

Specifically, the more a person represents SES as ascribed (versus acquired), the less anti-poor

prejudice they report. Furthermore, we find evidence supporting the idea that the reason why an ascribed representation of SES results in less prejudice is because it decreases people's belief that status hierarchies are legitimate. These representations are distinct from other types of related beliefs (e.g., perceptions of social mobility), and predict unique variance above and beyond these measures. Finally, Study 2 indicates that these representations are cognitive in nature, as they are related to attitudes, but not behavior (cf. Zucker & Weiner, 1993).

Although the first two studies document evidence of variation across individuals, it also left open the question of whether there was variation *within* individuals (Vanneman & Pampel, 1977). Studies 3 and 4 sought to prime these different representations in people by having participants use different social class indicators to categorize people. We hypothesized that priming social class would decrease anti-poor prejudice by activating an ascribed representation, while priming income would increase (or potentially not influence) anti-poor prejudice by activating an acquired representation. We also considered the possibility that the SES indicators would directly influence beliefs in status legitimacy.

Our results indicated that manipulating the salience of SES indicators had little to no effect on people's SES representations. However, there was some evidence that they did influence people's attitudes towards the poor. Although there are potentially important insights into how the very indicators used to denote SES may influence people's attitudes, the effects are not robust at present. Better tests of how these SES indicators might influence people's attitudes should try to more tightly control for confounding factors such as the target's race or gender, since these are known correlates of SES (Kraus & Stephens, 2012). Another facet that may be important to consider are the structural properties of task itself. The categorization tasks used in

the two studies presented here may have felt too artificial for participants. It may be more useful to have people consider SES indicators in a more naturalistic way, such as reporting their income or social class background before completing the rest of the study.

It may also be useful to consider how to activate ascribed or acquired representation to see whether such primes influence subsequent attitudes. One way might be to ask participants to focus on either seemingly intrinsic properties of the group versus behavior enacted my members of the group. Focusing on the former should yield a more discrete SES structure, while focusing on the latter should be yield a more continuous, dimensional structure (cf. Carothers & Reis, 2013). Another possibility would be to show participants groups of wealthy (or poor) people with a caption noting that these individuals either inherited their wealth/poverty, or arrived at their wealth/poverty as the result of their individual actions. Focusing on ostensible intrinsic properties or the generational transmission of socioeconomic status should activate more ascribed representations, while focusing on behaviors or the individual determinant of socioeconomic status should activate more acquired representations.

Finally, although these studies demonstrate that the ascribed-acquired dimension is distinct from other related constructs and that the dimension is related to anti-poor prejudice, they nonetheless leave open the possibility that other kinds of factors might spontaneously moderate the activation of particular mental models of SES. There may be distinct motivational processes that result in more ascribed or more acquired representations. We explore one such variable in the studies outlined in Chapter 3.

## **Chapter Three**

# **Motivational Shifts of Ascribed and Acquired Representations**

Studies in Chapter Two explored the possibility of individual differences in the representation of SES as either ascribed or acquired. We find significant variation across individuals, which is related to self-reported anti-poor prejudice. We also find that different representations of SES (i.e., as ascribed or acquired) can also be cued by different SES indicators, suggesting that perceivers hold *both* ascribed and acquired representations of SES. Although Studies 3 and 4 indicate that different representations can be made momentarily more salient and accessible, it does not examine the motivational determinants that may lead to spontaneous activation of one representation or the other. Perceivers may spontaneously activate certain representations of SES in response to threats (Vanneman & Pampel, 1977). We explore this possibility in the following study.

One additional outstanding question is whether the personal characteristics of the perceiver influence their SES representations. Although the studies in Chapter 2 demonstrate variability across individuals in representation of SES as ascribed or acquired, they do not consider personal characteristics of the perceiver, which may also influence the representations of SES that are activated. Some prior work has shown how demographic characteristics such as one's subjective SES influences judgments and evaluations of targets possessing a low-SES identity (e.g., Kraus & Keltner, 2013), but of greater interest is a more proximal psychological variable – that of one's status-based identity uncertainty (SBIU; Destin, Rheinschmidt-Same, & Richeson, 2017b). SBIU is a construct that taps into an individual's sense of security in their position in the status hierarchy. One's SBIU psychologically manifests as a tension between their past and future status-based identities (Destin et al., 2017b).

In general, those who feel more uncertain about their status-based identity should be more likely to hold an acquired representation of SES. Acquired representations highlight the idea that one's own behavior can shift one's status-based identity, so they align with the idea that one's status could change (depending on one's choices). Conversely, an ascribed representation should emphasize both the inherited nature of SES identity and its discreteness. In an ascribed representation, one's social standing is the direct product of one's parents. These elements should be related to a greater sense of certainty—if one's forbearers were all similar in their SES identity, then chances are that individual would maintain the same identity. Additionally, the discrete outcome of an ascribed SES representation ought to buffer against the possibility of uncertainty of one's SES-identity. There may be movement within that identity, but not so much as to leave the bounds of the identity itself.

Although SBIU may generally activate a more acquired representation of SES, this may be moderated by the individual's own SES. On the one hand, low-SES individuals may be the ones who show differences in mental representation of SES depending on whether they have a high level of SBIU. Destin and colleagues (2017b) suggest that SBIU may be especially high for lower-SES individuals at the start of college as they navigate the transition from their home environment to a (generally) higher-SES context. To attenuate the uncertainty aroused by such a transition, low-SES individuals who are high in SBIU may be more likely to call to mind the ways in which the individual has been personally responsible for the transition in the first place. Consequently, higher SBIU for low-SES individuals ought to lead to a more acquired representation of SES.

On the other hand, it may be high-SES individuals that show differences in mental representation depending on their levels of SBIU. Although they are high-SES individuals

moving to a high-SES context, shifting from home to college is nonetheless still a major transition and thus arouses stress and uncertainty (Arnett, 1998). Even middle-class students may feel threatened in extremely high-SES contexts, as might be the case at elite private institutions (Johnson, Richeson & Finkel, 2011). Although there are a myriad of ways that high-SES individuals might manage this uncertainty, there are two broad strategies that would cohere with activation of mental representations. One possibility is that higher SES individuals activate a more ascribed representation. This would bring to mind all the ways in which their SES is unlikely to change (i.e., SES is discrete) as well as their ability to call on parental financial support if necessary (i.e., SES is generationally transmitted). The other possibility is that higher-SES individuals activate a more acquired representation in much the manner we hypothesize lower-SES individuals might. That is, faced with the uncertainty that comes from being more independent and the possibility of moving downward socioeconomically, higher-SES individuals remind themselves of all the ways in which their future (and their SES) are determined by their personal effort. Such a strategy would be especially efficacious in institutions where these individuals had to attain high test scores and grades to gain admittance (ostensibly markers of personal effort).

### **Motivated Shifts?**

Although one's SES representation may generally correlate with a sense of status-based identity uncertainty, what mental model of SES might be activated if people are *induced* to feel such an aversive state of uncertainty regarding their status-based identity? We hypothesize that individuals are likely to activate a more acquired representation of SES in response to such uncertainty. Activating an acquired representation would help perceivers to respond to feelings of uncertainty that their status identity is within one's control. The sense of personal control may

be efficacious in reducing uncertainty. These representations of SES may also carry over to influence evaluations of other individuals possessing a low-SES identity.

However, we again note the possibility that such a phenomenon is moderated by an individual's own SES background. Those from a low-SES background may activate an acquired representation if experiencing a high level of status-based identity uncertainty to remind themselves of the upwardly mobile trajectory on which they have set themselves. In contrast, those from a high-SES background may activate an ascribed representation in situations of high status-based identity uncertainty in order to serve as a buffer against the possibility of a shift downward in the SES hierarchy.

## Study 5a

Study 5a examined the relationship between status-based identity uncertainty, mental models of SES, one's own SES background, and anti-poor prejudice. We hypothesized that in general, greater SBIU should be related to more acquired representations of SES as a way to reduce the state of uncertainty. The activation of a more acquired representation of SES should in turn be related to greater anti-poor prejudice. We do not hypothesize a direct relationship between SBIU and anti-poor prejudice, only the indirect relationship through greater relative endorsement of an acquired model of SES. Being uncertain about one's status-based identity is likely to activate more ego-centric perspectives about how to address such uncertainty, rather than direct any antipathy towards an outgroup (cf. Hogg, 2007).

We also explore the possibility that one's own SES background might moderate this relationship. Given that the population is first-year college students, we hypothesize that low-SES individuals may show differences depending on their level of SBIU. In particular, low-SES individuals with higher trait levels of SBIU may have a more acquired representation to reduce

the sense of uncertainty and remind themselves of the ways in which their own actions have already resulted in an upwardly mobile trajectory, whereas low-SES individuals with lower trait levels of SBIU should have more ascribed representations. However, it may be that high-SES individuals show differences in representation depending on trait levels of SBIU. High-SES individuals who exhibit high SBIU may activate a more ascribed representation to reduce the sense of uncertainty that may arise from the threat of transitioning to a lower-SES position than they may be used to due to their family background.

### Method

**Participants**: 269 participants were recruited from the Introductory Psychology participant pool at Northwestern University. Participants were on average 18.72 years old (SD = 0.89), and above average in subjective SES (M = 5.50, SD = 2.08). Roughly half of all participants were male (51%), with the rest identifying as female (49%). Participants were mostly White (52%) or Asian (31%), followed by Multiracial (7%), Hispanic (5%) and Black (3%).

**Procedure**: Study 5a was conducted at a mass-testing session at the beginning of the quarter at Northwestern University. Students completed a questionnaire assessing their sense of status-based identity uncertainty, mental models of SES, the personal responsibility outcome of said mental models, their subjective sense of SES, and anti-poor prejudice.

### **Materials:**

Status-based Identity Uncertainty (Destin et al., 2017b): Participants' sense of their own status-based identity uncertainty was measured using the 11-item SBIU scale. Participants were told to think about their status in society, defined as their income, education, and occupational prestige. They were also given an example, such as to think of their family background, where they stand presently, and where they are headed in life. Items in the scale

include statements such as, "My beliefs about where I stand in society often conflict with one another" and "Sometimes I feel that I am not really the social status that others think I am." Participants respond on a 7-point scale from 1 = Strongly Disagree to 7 = Strongly Agree. The scale exhibited excellent reliability ( $\alpha = .90$ ).

**Representation of SES**: Representation of SES was assessed using two 1-item measures of endorsement of either ascribed or acquired models of SES, similar to Study 2 and 4.

**Anti-poor prejudice**: We assessed anti-poor prejudice, using the same scale as in the previous studies (Stevenson & Medler, 1995).

**Subjective SES**: Participants completed a subjective measure of SES, presented pictorially as a ladder. They are told to imagine the ladder as representing society and to consider their position on the ladder relative to others in their community (i.e., relative to the rest of the student population at the University). Responses range from 1 (the bottom of the ladder) to 10 (the top of the ladder).

#### **Results**

We first sought to examine whether each indicator assessing mental representation of SES correlated with SBIU directly. We hypothesized that higher state levels of SBIU would be correlated with an acquired but not ascribed representation. Indeed, results revealed a significant positive correlation between SBIU and endorsement of an acquired representation, r(269) = .123, p = .043, but not ascribed representations (r = -.035, p = .56). The relative difference between ascribed and acquired representation was marginally correlated with SBIU (r = -.103, p = .089). All remaining correlations and means and standard deviations for all constructs are presented in Table 6.

We then sought to examine whether this difference in endorsement was moderated by the participants' subjective sense of their SES. A multivariate linear regression regressing endorsement of an acquired representation on SBIU, participant's subjective SES, and the interaction of the two revealed no significant effect of either SBIU or subjective SES (p = .44 and .17, respectively), but a marginal interaction of the two,  $\theta = .049$ , t(265) = 1.78, p = .077. Given the similarity in the basic effect using the relative endorsement measure, we also looked to see whether participants' subjective SES moderated the relative endorsement of the two models. Regression analyses revealed a marginal effect of subjective SES ( $\theta = .229$ , t(265) = 1.66, p = .099) and no main effect of SBIU (p = .22). Importantly, there was a significant interaction between SBIU and subjective SES on the relative endorsement of ascribed vs acquired representations,  $\theta = -.089$ , t(265) = -2.16, p = .031. Parallel tests using income instead of subjective SES revealed no main effect of income (p = .84) and no interaction between income and SBIU (p = .165).

We originally hypothesized that lower-SES individuals would have different mental representations depending on their levels of SBIU. Contrary to these predictions, we found that lower SES individuals had a stable (and relatively ascribed) representation of SES, regardless of SBIU. Instead, higher SES individuals were the ones to show different representations depending on SBIU. Specifically, higher SES individuals who had higher trait levels of SBIU had more acquired representations of SES, while higher SES individuals who had lower trait levels of SBIU had more ascribed representations (see Figure 5).

Finally, although there was no direct relationship between SBIU and anti-poor prejudice (r(269) = -0.096, p = .117), we did find a significant indirect effect. Using Model 8 from Hayes' PROCESS Macro, we tested a model where the effect of an independent variable X on a

mediator M and dependent variable Y is moderated by a variable Z. More concretely, we tested whether subjective SES significantly moderated the relationship between SBIU and the relative endorsement of an ascribed vs. acquired representation and whether inclusion of the mental representation measure significantly predicted anti-poor prejudice. Results reveal a significant overall indirect effect,  $\beta = .009$ , SE = .005, 95%CI [.001, .024]. This indirect effect held up even when controlling for political conservatism and subjective SES,  $\beta = .011$ , SE = .007, 95%CI [.002, .029]. Examination of the conditional indirect effect indicates that the indirect pathway was significant for high SES individuals ( $\beta = .037$ , SE = .02, 95%CI [.010, .078]), but not middle- (95%CI [-.001, .048] or low-SES individuals (95%CI [-.026, .033]).

### **Discussion**

The results from Study 5a indicate that when individuals feel more uncertain about their status-based identity, they are more likely to endorse an acquired representation of SES. We also find support for the idea that a person's subjective SES can moderate which SES representation is more salient. The results indicate that higher SES individuals are the ones who show differences depending on their level of SBIU. Among higher SES individuals, higher levels of SBIU resulted in a more acquired representation, whereas lower levels of SBIU resulted a more ascribed representation of SES. Low SES individuals endorsed a more ascribed representation of SES regardless of SBIU. That this effect did not emerge when using income is unsurprising. Status-based identity uncertainty is about how an individual feels about their own status *vis-à-vis others*; there is less reason to be uncertain if there is no comparison point. Thus, a high SES individual can objectively have a lot of resources, but still feel uncertain about their status-based identity if others around them either a) have even more resources or b) are very certain about their status-based identity. Finally, we find evidence of a significant indirect effect, whereby

SBIU was indirectly related to greater anti-poor prejudice via a more acquired representation of SES among individuals who reported feeling higher in subjective SES.

That higher SES individuals are the ones who would display this difference as a function of SBIU makes sense. For people low in subjective SES, uncertainty about one's status-based identity is associated with the potential for upward mobility. In contrast, status-based identity uncertainty for people high in subjective SES is likely associated with the potential to move downward from their family's social status. As a result, they seem to activate a mental model of SES that emphasizes their personal effort and ability. One caveat to note is that this may be particular to the American cultural context. It is possible that in cultures or countries that have more defined class divisions but mobility is still possible (e.g., the UK), higher status individuals who are faced with status-based identity may use a more ascribed representation to buffer against such a threat. While Study 5a demonstrates that status-based identity uncertainty is related to an acquired mental model of SES (and particularly so for people high in subjective SES), it leaves open the question of whether inducing such a state of uncertainty causes an individual to activate a more acquired representation of SES. We test this possibility in Study 5b.

## Study 5b

### Method

**Participants**: Based off the results of Study 5a, we recruited 214 primarily middle- and higher SES participants from an introductory psychology class. We excluded lower SES participants because their representations of SES did not appear to differ as a function of SBIU; thus, any manipulation of SBIU is unlikely to have an effect on this population. Participants were granted credit in partial fulfillment of a class requirement. Of these 214 participants, 42 failed the attention check, leaving a final sample of 172 participants. On average, participants were 18.86

(SD = 0.91) years old and above average in subjective SES  $(M = 4.26, SD = 1.69)^1$ . Participants were roughly equal in gender (52% female, 47% male, 1% unreported), and mostly White (48%) or Asian (31%), followed by Hispanic (10%), Multiracial (7%), and Black (4%).

**Procedure**: At a mass testing session at the beginning of the quarter, participants completed a survey including their sense of status-based identity uncertainty, as well as all demographics (including their subjective sense of SES). We selected primarily middle- and upper-SES participants, because the results from Study 5a indicated that SBIU had an impact on these participants and not lower-SES participants. Anywhere between 4-8 weeks later, participants were asked to come into the lab. After coming into the lab and consenting to be part of the study, participants were told the study concerned first-year students' experience in college. They were randomly assigned to one of two writing prompts. One prompt asked participants to write about a time when the world felt more uncertain, using language borrowed from Destin and colleagues (Destin, Rheinschmidt-Same, & Richeson, 2017a). More specifically, the prompt noted that life tends to be less predictable than people believe, and that the world does not always operate per predictable and meaningful rules. Participants are asked to use at least three full sentences to describe a time when the world felt uncertain. The other writing prompt mirrors the one just described, except substituting language to frame the world as more predictable and certain than people believe, operating by predictable and meaningful rules.

After writing about their experiences, participants then completed three items from the SBIU scale worded to reflect either greater certainty or uncertainty (depending on condition) as a forced-agreement scale, to reinforce the manipulation of (un)certainty. The forced-agreement

<sup>&</sup>lt;sup>1</sup> The subjective ladder measure used here ranged from 1 (the bottom rung) to 9 (the top rung), instead of 1-10 as in Study 5a.

paradigm requires participants to agree to statements, with the answer choices ranging from 1= somewhat agree to 4 = strongly agree (Petrocelli & Dowd, 2009). After this manipulation, they completed the rest of the items in the SBIU scale as a manipulation check. Finally, they indicated their endorsement of ascribed and acquired models of SES, followed by their lay theories of social status (Browman et al., 2017), system justifying ideologies (O'Brien & Major, 2005), and anti-poor prejudice (Stevenson & Medler, 1995).

### **Materials:**

Status-based Identity Uncertainty (Destin et al., 2017b): We used a shortened 8-item SBIU scale to serve as the manipulation check. The scale exhibited good reliability ( $\alpha = .86$ ).

**Representation of SES**: As in 5a, we assessed representation of SES using two 1-item measures of endorsement of either ascribed or acquired models of SES.

**Anti-poor prejudice**: Anti-poor prejudice was assessed using the same self-report scale as in the previous studies (Stevenson & Medler, 1995).

Lay theories of social status: We used the same 8-item measure of lay theories of social status as used in Study 1 (Browman et al., 2017). Participants are asked to respond to items on a 6-point Likert scale ranging from 1 = Strongly Disagree to 6 = Strongly Agree. Responses are scored such that higher scores indicate more belief in changeability of social status.

### Results

We first examined whether the manipulation produced the expected differences in state SBIU. Although the two conditions differed in the expected direction with those in the uncertain condition (M = 3.38, SD = 0.98) expressing greater SBIU than those in the certain condition (M = 3.17, SD = 1.13), this difference was not significant, t(170) = 1.31, p = .19.

Though the manipulation check did not work cleanly, we nonetheless still explored whether our experimental manipulation influenced people's representations of SES. As predicted, those who wrote about uncertainty reported greater relative endorsement of an acquired versus ascribed representation than those who wrote about certainty, t(170) = 2.04, p = .043. Although we intentionally selected a restricted range of SES, we still checked to see whether participants' subjective SES moderated this effect, but it did not, interaction  $\beta = .045$ , t(170) = 0.29, p = .77.

Next, we examined whether our experimental manipulation directly influenced people's negative attitudes towards the poor. We hypothesized that those who wrote about uncertainty might express more negativity towards the poor, as the result of activating an acquired representation. Results revealed no direct effect of condition on anti-poor attitudes, t(170) = 0.73, p = .47. Although this direct effect was non-significant, we considered the possibility that activation of an acquired representation may indirectly influence people's anti-poor attitudes. We used Model 6 from Hayes' (2013) PROCESS Macro, which tests the effect of experimental condition X (status-based identity uncertainty vs. certainty) on the dependent variably Y (antipoor prejudice) through two sequential mediators M<sub>1</sub> and M<sub>2</sub> (activation of an acquired representation and belief in status legitimacy) as well as the indirect effect through either of the mediators alone. Results revealed that only the indirect effect through both mediators was significant,  $\beta = .027$ , SE = .016, 95%CI [.003, .073] (see Figure 6). Examining each component of the indirect pathway, the uncertainty manipulation elicited a more acquired (vs ascribed) representation,  $\theta = .58$ , SE = .28, p = .043, 95%CI [.017, .1.134]. More acquired representations positively predicted belief in status legitimacy in turn,  $\theta = .15$ , SE = .05, p = .004, 95%CI

[.047, .247]. Finally, belief in status legitimacy positively predicted more negative attitudes towards the poor,  $\theta = .32$ , SE = .04, p < .001, 95%CI [.245, .403].

# **Discussion**

The manipulation of status-based identity uncertainty resulted in the expected shifts in representation that were hypothesized, even though the manipulation check failed to provide independent evidence of the effectiveness of our experimental manipulation. Although there might be many reasons why the manipulation check did not work as expected, one particular reason might be that the SBIU scale is intended to capture a more dispositional form of SBIU. Statements such as "My beliefs about where I stand in society often conflict with one another" suggest a more stable state of tension and thus less sensitive to momentary shifts in (un)certainty of one's status-based identity.

Turning to the main results, we nonetheless found that participants who were asked to reflect about how the world was uncertain indeed reported greater endorsement of an acquired SES representation. The overall indirect pathway from the uncertainty manipulation to anti-poor prejudice through both the activation of an acquired representation and greater BSL was significant. Given the findings of Study 5a, it is not wholly surprising there is no direct relationship; rather, activation of an acquired representation is likely a self-focused strategy. This method of coping with uncertainty by higher SES individuals would have the immediate benefit of reinforcing a personal sense of control. Over time, this can inform their beliefs about how and why the world is structured the way it is, ultimately impacting their attitudes towards poor people.

# Chapter 4 General Discussion

The studies reported here forward a concept of social identity that integrates multiple lines of work, including essentialism, lay theories, and attributions. We begin by defining this facet of identity as either ascribed or acquired. The notion that identity can be ascribed or acquired involves beliefs about the structure of identity, how membership in the identity came to be, and whether personal agency or contextual factors were the greater contributor to membership. We chose to focus on SES as the focal identity in question because of previous work showing differences in attributions for why people belong to their SES group (e.g., Zucker & Weiner, 1993). Studies 1 and 2 provide evidence that there is meaningful variation in the extent to which people think of socioeconomic status as ascribed or acquired, and that such variation is related to explicit attitudes regarding the poor. Studies 3 and 4 test the possibility that different indicators of SES will shift people's representations of SES – in particular, the structure of their SES representation. However, what we found was that although there was some weak evidence that these indicators did shift around representations of the structure of SES, the stronger effect suggested that having people categorize others based on SES influenced their perceptions of the legitimacy of the social hierarchy.

Although we did not hypothesize this effect at the outset, it nonetheless hints at interesting insights into how people think and feel about using SES as a basis for social categorization. Prompting people to think about SES in more dimensional vs. categorical ways did seem to influence their SES-related attitudes and beliefs, but the precise mechanism by which this happens is complex and unclear. The results from Study 3 and Study 4 suggest that factors such as (1) whether people consider multiple targets at the same time (as in Study 3) or individual targets one at a time (Study 4), as well as (2) whether the manipulation induces a more

abstract or a more concrete frame of mind might influence the way in which people ultimately feel towards the poor. Future research needs to direct investigate the role such factors may play in activating or prioritizing particular mental models of poverty.

These studies examining the influence of categorization by different SES indicators employed a cognitive framework. This framework assumes that both mental structures are present and accessible in individuals' cognition and that situational factors should be able to activate one representation or another. While Studies 3 and 4 suggested it was possible to shift around the discreteness dimension of representation, we found no evidence that it shifted perceivers' overall belief that SES is ascribed or acquired. It may be that people's representations of SES are resistant to change, which suggests that these representations are motivated. That is, they may arise in response to threats rather than more incidental environmental factors. In Studies 5a and 5b, we assessed people's status-based identity uncertainty (SBIU) as one avenue to studying these motivation forces. We find that higher levels of SBIU are associated with more acquired mental models, especially among higher-SES individuals. This provides some support to the notion that people are motivated to regain control over their futures and personal circumstances when made to feel as though it is uncertain. Study 5b finds this effect using an experimental manipulation to make students feel uncertain about their status-based identity. In neither study was SBIU directly related to anti-poor prejudice, but we did not hypothesize a direct relationship given that the nature of SBIU is self-directed. Thus, its primary, direct impact would be expected on self-related perceptions (Destin et al., 2017b), with any effects on perceptions of others being a secondary byproduct of SBIU.

Another motivational force that might activate more ascribed or acquired representations is the race of the target individual. Prior work has shown that race and social class are connected

in people's minds, with poor people being represented as Blacker than middle-class or rich people even in the absence of explicitly mentioning race (Lei & Bodenhausen, 2017b). Moreover, controllable attributions for poverty lead people to think of a poor person as Blacker than uncontrollable attributions do (Lei & Bodenhausen, 2017a). It may be the case that these mental representations are activated as reasons to justify (in the case of acquired representations) or suppress (in the case of ascribed representations) prejudice (cf. Crandall & Eshleman, 2003).

# **Theoretical Implications**

As alluded to earlier, the current work provides an integrative theoretical perspective in thinking about social identity. This differs from the trend in recent years to examine specific aspects of identity, such as essentialism (e.g., Kraus & Keltner, 2013) or lay beliefs about the fixedness or malleability of traits inferred from group membership (e.g., Plaks, Levy, & Dweck, 2009). In the example of SES group membership, both essentialism and fixed mindsets have been found to predict greater stereotyping and intergroup prejudice (Rattan & Georgeac, 2017). In the present work, however, Study 1 indicates that while both essentialism and more fixed mindsets are positively correlated with the ascribed dimension, greater endorsement of an ascribed identity is *negatively* associated with economic prejudice.

We believe that this contradiction can only really be understood by considering the holistic nature of identity representation. While both fixed mindsets and a more essentialist notion of identity may lead to the idea that there is some underlying similarity that binds members of the category together (Kraus & Keltner, 2013; Medin & Ortony, 1989), combining this with notions that people are not responsible for this membership invokes social norms against expressing prejudice towards people who have identities that are obtained through no personal agency (Crandall & Eshleman, 2003; Hegarty, 2002). In other words, when people

consider how an identity is situated in the broader social context, then this has a divergent outcome than when consider the nature of the identity per se.

Our initial theorizing integrated these two aspects (i.e., structure and responsibility) by suggesting that an ascribed model consisted of high discreteness and low responsibility for group membership and that an acquired model consistent of low discreteness and high responsibility. However, Study 1 showed that while these aspects were correlated with the overall representation, they were not strongly associated. If we consider both elements of mental representation more orthogonally, then there are four potential models to consider (see Figure 7). The original ascribed model might be better termed arbitrary ascription. In this model, identity is distinct/discrete, but people are not responsible for their membership in the category. As a result, differences in social status are recognized but perceived as illegitimate and unfair, ultimately resulting in less prejudice towards members of the low-status group.

The second model would be a variant of the ascribed model, where discreteness is still high, but groups are perceived to be responsible for their SES as a function of either their innate tendencies (e.g., Kraus & Keltner, 2013) or cultural practices (e.g., Rangel & Keller, 2011).

Although it seems somewhat paradoxical to hold *individuals* responsible for their biological and/or cultural inheritance, the emphasis in this model is on the group as a while and the attributions made for the group's social position. Past research confirms that people *do* sometimes attribute responsibility for an individual's outcomes to group dispositions (Menon, Morris, Chiu, & Hong, 1999). This model—which could be called the group inferiority model—holds that there are different, distinct groups in society that vary in social status, but that these status differences are justified because low-status groups are ultimately considered to be responsible for their life outcomes.

The third model would be the originally hypothesized acquired model, where low-SES identity is the function of high perceived responsibility and there is low group discreteness. Within this model, group differences are minimized and personal responsibility is highlighted, so if a person has a low-SES identity, then they did something to deserve said identity. This model would capture much of the work on attributions for poverty (e.g., Cozzarelli et al., 2001; Weiner et al., 2011; Zucker & Weiner, 1993) which shows that greater perceived responsibility for a poor identity results in greater prejudice towards low-SES targets. This model echoes that prediction and includes the idea that such prejudice could be accounted for by the perception that the system is fair and legitimate.

The final model consists of low discreteness and low responsibility. Again, differences in SES across individuals are minimized akin to the originally hypothesized acquired model, but people's position along the status hierarchy is seen more as a function of uncontrollable happenstance. People who have this sort of model may think of SES in terms of individual variability that is influenced by forces that are hard to predict or control. In this model, low SES is the result of uncontrollable factors such as calamitous medical expenses, employer downsizing and business closures, or a home destroyed by flooding. Such randomness should lead perceivers to downplay the role of personal responsibility and focus more on the individual's susceptibility to larger forces. This is because the uncontrollable happenstances that may occur happen to an individual person; it is relatively unlikely that an individual event that leads to poverty occurs across all low-SES individuals. Thus, there should also be less prejudice towards the poor for perceivers who hold this model. Unlike the arbitrary ascription model, the focus in this model is on the individual rather than the group. This difference in focus would mean that

perceivers who hold this mental model are unlikely to consider SES as distinct groups and engage prejudice suppression processes that might otherwise be triggered.

These four potential mental models serve as a way to integrate system justification and social identity theories. The central hypothesis underlying the mental models is that people may reason about social identity in certain ways in defense of one's worldview. Of course, there are a variety of ideological underpinnings for people's worldviews. One facet of increasing interest is the way people think about economic inequality. A recent theoretical piece by Jetten and colleagues (Jetten, Wang, Steffens, Mols, Peters, & Verkuyten, 2017) considers the impact that economic inequality has on the way people use social identity. They suggest that inequality highlights an us vs. them mentality along wealth lines, generating meaningful SES-based social categories. Moreover, the way that people respond to said inequality is likely to be influenced by perceived stability of the system, perceptions of group boundary permeability, and position along the social ladder (Jetten et al., 2017). Specifically, Jetten and colleagues suggest that inequality is most likely to be perceived as unfair when group boundaries are impermeable and wealth gaps reflect illegitimate differences. These ideas are the same ones explored here, but the current line of work also examines why it might be that group boundaries are thought of in certain ways, hypothesizing that people reason about social categories in service of maintaining their worldview.

Political ideology is another ideological underpinning that has been studied. As Weiner and colleagues (Farwell & Weiner, 2000; Weiner et al., 2011) have noted, political ideology has been shown to predict how attributions link social identity and system justification. The present work extends this reasoning by considering other psychological tools that people have, including reasoning about the structure of groups (e.g., discreteness and essentialism).

Of course, there may be other forms of system justification that might also influence people's attitudes towards the poor. That is, perceivers may not think the system is particularly fair given the uncontrollable nature of SES identity, but they may still hold the belief that bad things happen to bad people – a form of system justification known as belief in a just world (Lerner, 1980). If these mental models are indeed motivated in nature, then one possibility is that some perceivers may automatically turn to such beliefs as justifications for their anti-poor prejudice and explanations for why low-SES individuals have poor life outcomes.

Overall, adopting this sort of framework helps to explain the existing work on prejudice towards the poor, explains the results of the current work, and opens up new avenues for inquiry into how people think about identity broadly and what implication these mental models have for anti-poor attitudes specifically. For example, it would be interesting to test whether discreteness amplifies the negativity towards the poor above and beyond perceptions of personal responsibility (i.e., the group inferiority model vs. the acquired model). A comparison of these two models would also help to answer whether it matters if responsibility is attributed to the individual versus the group. One possibility is that perceptions of greater group homogeneity (i.e., all members of the group are personally responsible) leads to greater prejudice than if the attribution of responsibility is made at the individual level. Another interesting question to examine is whether it is necessary to first perceive discrete groups in order to reduce prejudice towards the poor, or if its sufficient to just decrease the belief that people are personally responsible for their SES (i.e., comparing the ascribed model versus the random happenstance model).

Finally, it would be interesting to more systematically examine the motivational determinants of these various models. While extant work suggests that individual difference

variables such as political ideology influence perceptions of responsibility (Cozzarelli et al., 2001; Weiner et al., 2011), there is far less work that examines what determines whether people think of a social identity as more discrete or continuous (but see Carothers & Reis, 2013). This structural consideration may depend on what particular aspect of identity is emphasized (e.g., physical attributes versus behaviors; Carothers & Reis, 2013). It would be interesting to continue trying to manipulate the structure of people's representations and observing whether such manipulations have any impact on people's evaluations. If people are induced to think of a social identity as more continuous, then they may use that information to evaluate whether or not the person belongs to the group in the first place (Berreman, 1972). This might an interesting case where a motivated shift to a more continuous structure leads to a rejection of categorical distinctions altogether and thus less group-based prejudice (even if perceived responsibility for behavior is still high). Some related work examining attitudes towards bisexual individuals finds that negative attitudes towards bisexual individuals is partly due to the fact that people perceive gender and sexual orientation to be categorical (Rubinstein, Makov, & Sarel, 2013). Thus, understanding prejudice towards different social identities may not be able to be boiled down to either group-based essentialism or perceptions of personal responsibility, but rather the combination of both factors.

# **Limitation and Future Directions**

One major limitation of the current work is that we used an American sample in all studies. Although this was done specifically to examine the variability within a cultural context with respect to the endorsement of SES mental representations, there are likely to be important differences across cultures. If we take the meaning of ascribed and acquired identities to be relatively stable across countries, then the level of economic development in the country may

play an important role in people's mental representations of SES. A multi-level, multi-country study of people's attributions finds that individuals in less-developed nations endorsed a more structural (i.e., ascribed) explanation for poverty, whereas those in highly-developed countries endorsed a more individualistic explanation for poverty (Da Costa & Dias, 2015). Although our results are not cross-national, the differences between low and high-SES individuals in some our studies reflects this potential difference. For example, in Study 5a, low-SES individuals endorsed a more ascribed representation of SES, whereas higher-SES individuals showed more variability.

Another facet that differs across countries and cultures is the socio-historical context. For example, notions of what an ascribed identity might mean in India are likely to differ dramatically from the United States given the socio-historical context of the caste system (Mahalingam, 2003; 2007). There, an ascribed representation of SES is likely to reflect more essentialist notions of identity, because the system itself is seen as legitimate. Such dynamics may also play out in older, European countries, which have historically been governed by monarchies with clearly defined class distinctions (e.g., Wright, 1979). Though, given that most western European countries are also more economically developed, these forces may work against one another in such a way that one would need to account for other moderators to clearly identify how these different influences ultimately impact people's SES representations.

Another important future direction would be to examine how the ascribed-acquired dimension applies to other social categories. We chose SES as our focal social identity because we theorized there would meaningful variation in endorsement of the two mental models.

Although there may be less variability for other identities such as race or gender that are perceived to be basic and natural (Hirschfeld, 1998), it is nonetheless possible that there is

meaningful variation for these social categories as well. Generally, the predictions outlined here with respect to SES should also apply to race or gender such that a more ascribed representation of gender or race should lead to less prejudice towards members of that category. However, there may be important differences depending on what people consider to be the defining element of identity versus a broad conceptualization of identity. That is, perceivers could think of identity as a cultural construct, which has been discussed as a hybrid attributional explanation distinct from either structural or individualistic attributions (Cozzarelli et al., 2001; Lepianka, van Oorschot, & Gelissen, 2009). With this frame, individuals think of ascribed identities in a more negative way, if they think of the ways culture and individual actions intersect to determine personal outcomes (e.g., Rangel & Keller, 2011). Of course, they may also think of ascribed identities as ones where prejudice is prohibited because of the lack of controllability, as was the case with the studies reported here.

#### Conclusion

Overall, we have sought to draw together insights from sociology, anthropology, and social psychology to generate an integrative framework for understanding how people think of social identities and how this contributes to intergroup prejudice. Although extant work has documented the important consequences of representing social identities in fixed or malleable ways (e.g., Rattan & Georgeac, 2017), we believe it is also important to extend beyond this to consider why people might have these representations. This framework allows for an easy and holistic integration of these related outcomes and provides a means to test for the relative importance of each in determining intergroup hostility. Identifying the relationship between

mental representations and the attributional explanations that underlie them will be crucial in developing interventions that ultimately reduce said intergroup negativity.

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	Stud	ly 1	Study 2					
Variable	Asc/Acq	EBS	BSL	Asc/Acq	EBS	BSL	_	
Age	005	10	.09	01	08	06		
Gender $(1 = female)$	003	13	07	.09	12	24**		
Political Conservatism	15*	.51**	.52**	13†	.63**	.64**		
Subjective SES	08	15*	.15*	24**	.21**	.19*		

Table 1. Correlations between the ascribed-acquired dimension, anti-poor prejudice (Economic Beliefs Scale-EBS), and Belief in Status Legitimacy (BSL).

	1		2		3	4		5		6		7		8		9	10
1. Ascribed-Acquired	1																
2. Categorical	0.22	**	1														
3. Continuous	-0.06		-0.12		1												
4. Personally Responsible	-0.31	**	0.02		0.02	1											
5. Protestant Work Ethic	-0.4	**	0.07		-0.01	_		1									
6. Economic Beliefs Scale	-0.29	**	0.09		0.04	0.52	**	0.47	**	1							
7. Lay Theories of Social Status	-0.35	**	-0.17	*	-0.01	0.45	**	0.56	**	0.25	**	1					
8. SES-Discreteness	0.10		0.27	**	-0.01	-0.11		0.08		0.23	**	-0.23	**	1			
9. SES-Biological Origin	0.18	*	0.20	**	0.01	-0.01		-0.09		0.12		-0.44	**	0.46	**	1	
10.All System Legitimizing Beliefs	-0.31	*	0.01		0.01	0.46	**	0.87	**	0.61	**	0.50	**	0.1		-0.09	1

Table 2. Correlations between the ascribed-acquired dimension and other variables of interest in Study 1. N = 191 overall. *Note:* N = 85 for the correlations between the personally responsible variable (column 4) and other variables. N = 106 for the PWE variable and other variables (column 5). \* p < 05, \*\* p < .01.

Measure	Mean	SD	N
1. Ascribed	4.48	1.515	140
2. Acquired	4.56	1.405	140
3. Asc-Acq	-0.079	2.620	140
4. Economic Beliefs Scale	2.408	1.065	140
5. FT Poor	68.63	25.251	140
6. FT Middle-Class	75.69	20.854	140
7. FT -Rich	52.02	29.629	140
8. Implicit Poor/Negative D-score	-0.633	0.412	91
9. Donation (in cents)	18.07	28.149	91
10. Belief in Status Legitimacy	3.3482	1.715	140
11. FT Poor-Middle-Class Rel. Diff.	7.064	23.914	140
12. FT-Poor-Rich Rel. Diff	-16.607	34.660	140

Table 3. Means and standard deviations for all measured variables in Study 2.

	1	2	3	4	5	6	7	8	9	10	11	12
1. Ascribed	1											
2. Acquired	-0.60**	1										
3. Asc-Acq	0.91**	-0.89**	1									
4. Economic												
Beliefs Scale	-0.22**	0.20*	-0.34**	1								
5. FT-Poor	0.09	-0.05	0.08	-0.46**	1							
6. FT-Middle-												
Class	-0.18*	0.22**	-0.23**	0.05	0.48**	1						
7. FT -Rich	-0.39**	0.29**	-0.38**	0.26**	0.21*	0.56**	1					
8. D-score	-0.03	-0.05	0.01	-0.21*	0.00	-0.03	-0.1	1				
9. Donation	0.10	-0.09	0.11	0.02	0.28**	0.26*	0.09	-0.12	1			
10. BSL	-0.30**	0.30**	-0.34**	0.81**	-0.43**	0.07	0.39**	-0.15	-0.03	1		
11. FT-Poor-	-0.26**	0.24**	-0.28**	0.53**	-0.64**	0.37**	0.26**	-0.03	-0.08	0.52**	1	
Middle-Class												
12. FT-Poor-	-0.40**	0.29**	-0.39**	0.56**	-0.55**	0.13	0.70**	-0.09	-0.13	0.65**	0.69**	1
Rich												

Table 4. Correlations between the ascribed-acquired dimension and new dependent variables assessing anti-poor prejudice in Study 2. \* p < 05, \*\* p < .01.

		Condition			
Dependent Variable	Social Class	Income	Control	F	р
1. Asc-Acquired representation	3.83 (1.50)	3.66 (1.57)	3.85 (1.55)	0.40	.67
2. Discreteness	3.38 (1.42)	3.79 (1.34)	3.28 (1.39)	3.21	.042
3. Personal Responsibility	4.14 (0.98)	4.09 (1.18)	4.04 (1.10)	0.17	.85
4. Economic Beliefs Scale	2.45 (0.92)	2.16 (0.85)	2.40 (0.91)	2.49	.085
5. Liberal Policy Support	4.15 (1.26)	4.52 (1.24)	4.17 (1.33)	2.24	.108
6. Conservative Policy Support	4.01 (1.03)	3.95 (1.11)	3.98 (1.11)	0.06	.94
7. Belief in Status Legitimacy	3.61 (1.41)	3.12 (1.39)	3.42 (1.50)	2.47	.086

Table 5. Means, standard deviations (in parentheses), and inferential statistics for each dependent variable in Study 4. \* p < 05, \*\* p < 0.01.

		Mean	SD	1	2	3	4	5	6	7	8	9
1.	SBIU	3.22	1.20	1								
2.	Ascribed	5.08	1.12	-0.04	1							
3.	Acquired	4.48	1.27	0.12*	-0.24**	1						
4.	Asc-Acq Rel. Diff.	0.60	1.89	-0.10†	0.76**	-0.82**	1					
5.	Economic Beliefs	2.19	0.81	-0.09	-0.04	0.29**	-0.22**	1				
	Scale											
6.	Belief in Status	3.23	1.28	-0.00	-0.15*	0.33**	-0.31**	0.65**	1			
	Legitimacy											
7.	Subj. SES	5.50	2.08	-0.20**	-0.03	0.01	-0.03	0.17**	0.05	1		
8.	Obj. SES (Income)	6.16	2.56	-0.19**	-0.03	-0.01	0.01	0.15*	0.04	0.78**	1	
9.	Conservatism	3.07	1.57	-0.14*	-0.06	0.29**	-0.23**	0.47**	0.49**	0.08	0.02	1

Table 6. Means, standard deviations, and correlations between status-based identity uncertainty and related constructs in Study 5a. † p < .10, \* p < .05, \*\* p < .01.

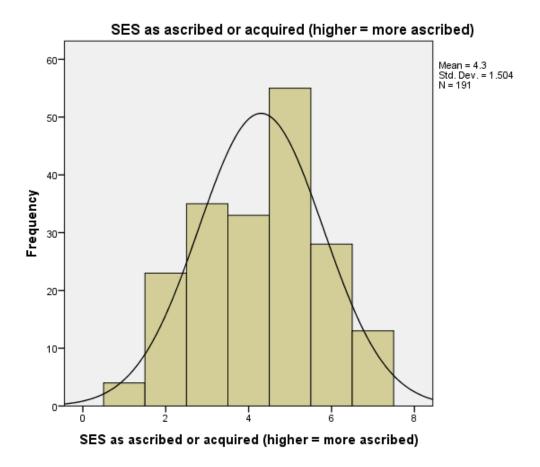
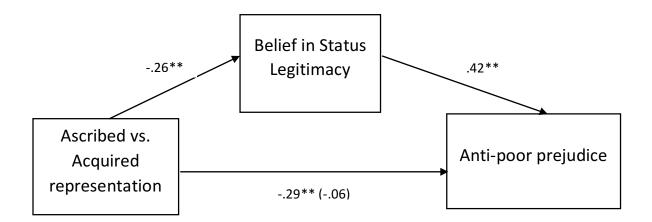
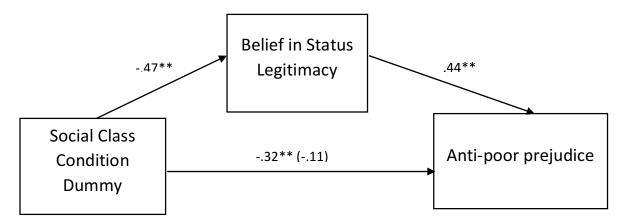


Figure 1. Distribution of scores for the 1-item ascribed-acquired measure in Study 1 (N = 191).



Overall Indirect Effect:  $\beta$  = -1.08 95%CI [-0.166, -0.058]

Figure 2. Mediational analyses for the effect of holding an ascribed representation on anti-poor prejudice through belief in status legitimacy in Study 1. \* p < .05, \*\*p < .01.



Overall Indirect Effect:  $\beta$  = -0.21, 95%CI [-0.368, -0.063]

Figure 3. Mediational analyses for the effect of the social class condition on anti-poor prejudice through belief in status legitimacy in Study 3. \* p < .05, \*\*p < .01.

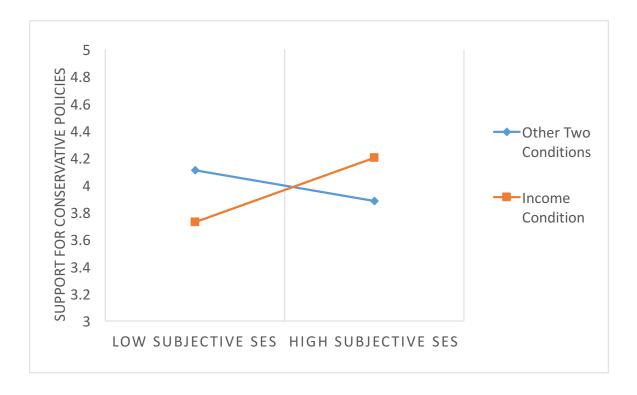


Figure 4. Interaction between subjective SES and the SES indicator manipulation in Study 4. Values are plotted at  $\pm$ 1 SD for subjective SES.

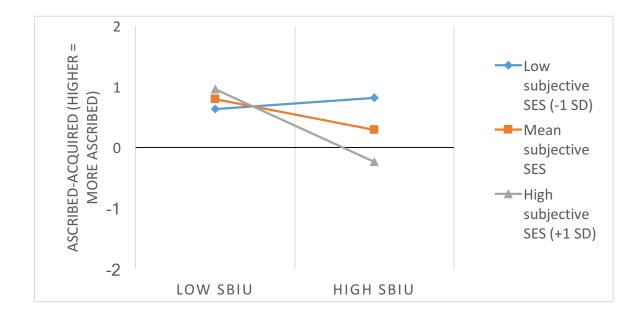
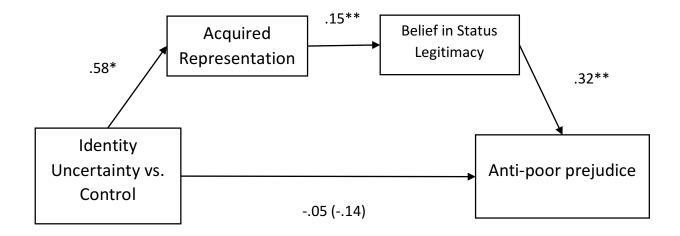


Figure 5. Interaction between status-based identity uncertainty (SBIU) and subjective SES in Study 5a. Values for low and high subjective SES are plotted at +/- 1 SD.



$$\boldsymbol{6} = -0.17$$
,  $SE = .08$ , 95%CI [-0.329, -0.009].

Figure 6. Mediation analyses for the effect of identity uncertainty on anti-poor prejudice through activation of an acquired representation of SES and belief in status legitimacy in Study 5b. \*p < .05, \*\* p < .01.

# **Personal Responsibility**

		Low	High
		<u>Uncontrollable Happenstance</u>	Personally Acquired
S.	Low	Less prejudice	Greater prejudice
enes		Focused on individual	Focused on individual
) iscreteness		No prejudice suppression	No prejudice suppression
Di		Arbitrary Ascription	Group Inferiority
	h.	Least prejudice	Greatest levels of prejudice
	High	Focused on group	Focused on group
		Prejudice suppression	No prejudice suppression

Figure 7. The four different potential models for how to consider social identity as a function of personal responsibility and discreteness.