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## The Role of Social Class and Construal Level in Social Justice and Fairness Beliefs

Prerana Bharadwaj  
*University of Massachusetts - Amherst*

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THE ROLE OF SOCIAL CLASS AND CONSTRUAL LEVEL  
IN SOCIAL JUSTICE AND FAIRNESS BELIEFS

A Dissertation Presented

By

PRERANA BHARADWAJ

Submitted to the Graduate School of the  
University of Massachusetts Amherst in partial fulfillment  
of the requirements for the degree of

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Approved as to style and content by:

---

Ronnie Janoff-Bulman, Chair

---

Brian Lickel, Member

---

Aline Sayer, Member

---

Sheila Mammen, Member

---

Caren Rotello,  
Interim Department Chair  
Department of Psychology

## DEDICATION

To Mom.

## ACKNOWLEDGMENTS

I would like to thank my advisor, Ronnie Janoff-Bulman, for the years of support, guidance, and faith in my abilities. Reaching this milestone, as well as this program of research, would not have been possible without her patience and mentorship.

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ABSTRACT

THE ROLE OF SOCIAL CLASS AND CONSTRUAL LEVEL

IN SOCIAL JUSTICE AND FAIRNESS BELIEFS

MAY 2017

PRERANA BHARADWAJ,

B.A., UNIVERSITY OF PENNSYLVANIA

M.S., HUNTER COLLEGE

M.S., UNIVERSITY OF MASSACHUSETTS AMHERST

Ph.D., UNIVERSITY OF MASSACHUSETTS AMHERST

Directed by: Professor Ronnie Janoff-Bulman

What predicts support for the redistribution of resources to improve socioeconomic inequality? Social class, or the subjective perception of one's resources and position in relation to others in a larger society, was examined as one relevant characteristic. Across four experiments, social class as subjective social status was manipulated (two) and measured (all four), and found to have a significant negative effect on support for the moral values of group-based equality (social justice) but not on individual deservingness (fairness) separate from political identity and other demographic characteristics. This effect was seen on stated principles but particularly relevant in approval ratings of conflict scenarios in which social justice is violated in favor of fairness such as in instances counter to Affirmative Action policies. Using an abstract/higher construal level or "big picture" style of thinking (measured in all four studies and manipulated in two studies) independently predicted objections to the violations of social justice but not fairness in such scenarios. Socioeconomic inequality has undeniably poor consequences for a society and understanding the psychological perspectives of those along the social class continuum, particularly those in power towards the top, may be a step towards alleviating such inequality.

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## CHAPTER 1

### SOCIAL CLASS, SOCIAL JUSTICE & FAIRNESS

#### A. Introduction

In an April 2015 Gallup poll of over 5,000 adults across the US, participants responded to questions about inequality and income distribution with unexpectedly mixed results (Newport, 2015). Overall, 46% of Americans did not believe income and wealth are distributed fairly and did support the government taxing the rich to reduce the inequality. Conversely, 25% believed the distribution is acceptable and that taxing the rich is not necessary. However, when considering perhaps the most relevant characteristic of these respondents to these questions on economic inequality--their socioeconomic status--these beliefs shifted towards two poles of increased and decreased support for wealth redistribution. Thus, broken down by income, 41% of those who earned over \$75,000 annually believed the national income distribution was acceptable, while this was true of only 26% of those who earned under \$30,000. Of those who opposed the current income distribution, 61% of low-income participants supported taxing the rich to resolve the issue, while this was true of only 43% of higher income participants. The differences in these numbers between high- and low-income participants could be accounted for by self-interest. After all, the poor would benefit from income redistribution policies, while the rich would be averse to the costs they would presumably incur. Indeed, the differences between the numbers would probably be even greater if income brackets above \$75,000 were isolated. However, the numbers are clearly not explained by self-interest alone: Who are the 26% of low-income individuals who believed the income distribution was acceptable, and the 59% of high-income individuals

who found the distribution unfair? What motivations and contexts explain the 43% of high-income participants who would tax the rich to even the distribution, at presumed cost to themselves? If self-interest is not the primary motivation for these beliefs, what is? The following review of literature in social psychology examines proposed explanations for why high- and low-social class would predict increased or decreased support for economic redistribution.

Social justice is the phrase used to capture the moral value supporting the redistribution of resources to achieve large-scale equality across groups in society. Like other values, social justice is shaped by long-term contexts. The specific relevant context addressed here is social class, which is the subjective experience of socioeconomic status (SES) relative to others in a social hierarchy, often measured as a combination of wealth, education, and occupational prestige (Saegert, Adler, Bullock, Cauce, Liu, Wyche, 2007). Research suggests that both objective measures and subjective perceptions of SES can influence several types of moral judgments, but less is known about the effects of one's own socioeconomic status on specific moral judgments of economic and social inequality (Kraus, Piff & Keltner, 2011).

In understanding beliefs about socioeconomic inequality, socioeconomic status is likely to be a valuable and important predictive variable. Over the last 50 years in the US, the income gap between high socioeconomic status groups and low socioeconomic status groups has only widened. This is significant because low SES has been shown to have immense negative permanent and cyclical psychological and physiological consequences for society, such as increased chronic stress, increased health risks, neural changes decreasing short-term memory, and decreased academic and professional success

(Saegert, et al., 2007). In aiming to understand and perhaps thereby reduce that inequality, SES is also an important variable to consider because of the strong influence high SES individuals have on important societal domains, including education (what is taught), research (what is studied), business (which companies and people profit), and politics (which policies are upheld). Research at the intersection of social class and beliefs about inequality is important as it may be helpful for resolving some of the issues that come with severe socioeconomic inequality on the national level.

As a step towards conducting research to alleviate the consequences of socioeconomic inequality, the following literature review will begin by defining socioeconomic status, social class, and social justice, especially in relation to associated but separate concepts. Next, existing social psychological research on the influence of social class/socioeconomic status on endorsement of social justice values and beliefs will be reviewed. The examined studies will be divided into four sections that answer the following questions: how high social class would predict low support for social justice, how low social class would predict high support for social justice, why high social class might predict high support for social justice, and why low social class might predict low support for social justice. The latter two sections contradict expected self-interest motivations and, in fact, involve fewer as well as conflicting findings, leaving unanswered the question of why the expected self-interest motivations may be violated. Thus, in the final section, four studies establishing the direct relationship between social class and beliefs about inequality and meritocracy, and testing a conceptual mediator/predictor, will be presented that attempt to bring the incongruous research

together into a cohesive model better explaining the influence of social class on social justice beliefs.

### **B. Defining Social Class**

As a specific form of status, social class is complex, so it is important to begin by reviewing the social psychological understanding of “status” as a general concept. Although studies have historically conflated status with other related characteristics, such as “power,” recent research has sought to better clarify these traits. A current and comprehensive understanding of status was explored in a chapter on Interpersonal Stratification (Fiske, 2010). Here, Fiske posits that status differs from other related concepts because it is granted externally by those without status. Power, for example, may be earned individually, and hierarchy can be defined by a system, but status is uniquely a social and cultural phenomenon. Thus, Fiske suggests that status is specifically composed of such intangible resources as “social respect, recognition, importance, and prestige” resulting from position at the top of a social hierarchy (Fiske, 2010). Power, in contrast, has been defined as control over important outcomes and resources such as income or social inclusion (Blader & Chen, 2012). In relation to social justice, status may be more relevant than power as most people do not have great direct control over the redistribution of resources, but status, especially socioeconomic status, is both more common and more measurable, as well as central to one’s beliefs about the self and others.

Socioeconomic status (SES), the objective measure of social class, is measured as a combination of factors including education, income, and occupational prestige that coalesce to represent a single concept regarding position in a social hierarchy (Saegert, et

al., 2007). SES is unique from other markers of social status such as race, gender, and age. All of these forms of status often have externally visible elements; SES, on the other hand, is a more concealed form of status. Moreover, SES achieves altogether what race, gender, and age do individually: SES separates society into defined groups that determine specific roles, while presumably allowing for mobility between groups. Still, like race and gender, SES falsely suggests achievement through internal factors. Although high SES certainly can be earned through education and/or professional success, it may also be conferred through fortunate birth, making assumptions of positive internal qualities just as spurious.

Besides positive consequences such as access and agency, status is especially associated with perceived competence. Indeed, surveys administered to 20 international samples found that measures of societal status were highly correlated with perceived trait competence (Fiske, Cuddy, Glick & Xu, 2002). Part of the proliferation of using status to infer competence and other positive qualities may lie in the ease of visually recognizing status over traits that require effortful testing, such as ability (Fiske, 2010).

People immediately acknowledge status hierarchies through nonverbal, verbal, and attitudinal routes. High-status people generally do (a) express freely (more facial activity, posing skill), (b) relax more (open body, calm voice, vocal stability), and (c) intrude more (direct gaze, closer interpersonal distance, more interruptions, louder voices). (Fiske, 2010)

Highly visible, persons with high status are then associated with other positive qualities that grant privilege in many ways – a process labeled status characteristics theory (Ridgeway, 2001).



Thus, status is perceived socially. Ridgeway & Erickson (2000) show the strength of this status construction in studies where subjects developed shared status beliefs about a group through nonverbal cues. In these studies, participants were all assigned to the same group, which was supposedly paid a different amount for their participation than another group (confederates). When participants and confederates were brought together to make some decisions as part of the task, confederates either interacted with participants in a “hesitant, uncertain, and deferential” manner (higher status condition) or in a “confident, certain, and assertive” manner (lower status condition). In the higher status condition, participants observed these nonverbal indications of their own importance, inferred their own high status, and assumed they were paid more. In the lower status condition, participants inferred their own inferiority and assumed they were being paid less. In a subsequent study, the participants transferred these understandings of status to third-party observers through their behavior. Thus, as group members are observed to have some social advantage over others, beliefs about their deservingness are also formed and, in a self-fulfilling prophecy, a hierarchy is established.

Once status is constructed and communicated, how is objective status maintained? First, according to meta-analyses, ingroup bias tends to be higher among high-status groups, and this mechanism serves to keep the same groups at the top over time (Bettencourt, Charlton, Dorr, & Hume, 2001). A company’s leadership, for example, tends to “network, attract, hire, socialize, and appreciate similar others, from job-hunting onward” (Fiske, 2010). On a societal level, resources accorded to high SES individuals can easily be passed on to their children and close others – legacy admissions at a university and estate planning being prime examples. Simultaneously, the consequences

of low status can be perpetuated by lower quality schools in low-income communities, the health effects of chronic stress caused by limited resources, and, recently, the findings that poverty alters the brain in ways that can affect academic success (Mani, Mullainathan, Shafir & Zhao, 2013; Shonkoff, Boyce & McEwan, 2009; Smith, Brooks-Gun & Klebanov, 1997). In fact, although SES has been theoretically purported to allow for mobility between groups, it is far more common for people to remain in their category for generations and perpetuate inequality while also grossly overestimating the possibility of social mobility (Causa & Johannsen, 2011; Kraus & Tan, 2011). This long-term and pervasive establishment of the socioeconomic status hierarchy thus has consequences for a person's beliefs about his or her own place in society and the extent to which this position is deserved or needs revision.

Finally, SES categories have been studied as cultural groups, with specific behaviors and tastes distinct to upper versus low status groups that are learned and strengthened the way other cultural markers are (Kraus, Piff & Keltner, 2011). Examples of these markers may be physical, such as weight, behaviors, such as dental hygiene, or tastes, such as music and fashion brands, among many others. Essentially, the objective measure of SES generally translates into signals of status such as aesthetic preferences and social behavior that, in turn, form the basis of the subjective experience of social class (Kraus, Piff & Keltner, 2011).

Interestingly, measures of status differentially affect outcomes depending on whether the measure is objective or subjective. A laboratory study of healthy women showed that subjective perceptions of their own status were better predictors of psychological and physiological health outcomes including stress levels, general affect,

and heart rate (Adler, Epel, Castellazzo & Ickovics, 2000). These predictions went above and beyond the effects of objective measures of their income and education, providing further support for the social psychological nature of social class and its effects. Essentially, the subjective component of social class (referred to as Subjective Social Status, SSS) is largely rooted in social comparison, not discrete income quintiles, and understanding of rank relative to others is a key element. Importantly, social class has been defined as an essential part of the self, affecting everyday interactions, large institutional and systemic processes, individual self-worth, and engagement with others (Reay, 2005). Hereafter, mentions of social class will refer to the psychological experience and effects of varying levels of SES and SSS.

### **C. Defining Social Justice and Fairness**

One important aspect of social class is the reluctance many people feel to discuss it, laden as it is with the weight of self- and others' worth, as well as strong emotions such as embarrassment and shame (van Eijk, 2012). Regrettably, the consequence of class being taboo is invisibility: economic inequality can be denied, the needs of those with low status can be ignored, and people at the bottom of the hierarchy seldom recognize their own disadvantage and are unlikely to rally in support of change while the income gap only increases (Sanders & Mahalingam, 2012). Nevertheless, issues of SES are invariably related to the distribution of resources in a society – and opinions about this from a moral perspective may be interestingly telling about the effects of status and class on moral psychology.

Two major and competing rules for how we should allocate resources can be referred to as fairness and social justice. Fairness involves input-based deservingness and

results in outcomes based on proportionality. In contrast, Social Justice involves deservingness based on common group membership and results in outcomes that are relatively equal across the group. Fairness is based on an individual or group's specific effort, work, or contributions, whereas Social Justice is based in communal sharing of the group's resources; here a person is entitled to distributions as a member of the group (Bharadwaj & Janoff-Bulman, in preparation).

The two rules have a moral component, as presented in the Model of Moral Motives (MMM), (Janoff-Bulman & Carnes, 2013). In MMM, distinct moral principles are derived by turning to a fundamental motivational distinction, approach versus avoidance, and crossing these orientations with three foci of moral concern: the self (intrapersonal), the other (interpersonal), and the group (collective). Approach-based morality, or prescriptive morality, emphasizes positive, selfless behaviors, whereas avoidance-based morality, or proscriptive morality, is restrictive and involves restraining negative, self-interested behaviors (Janoff-Bulman, Sheikh, & Hepp, 2009). Fairness is the result of applying the approach-based morality to the interpersonal domain. A key extension of moral principles in the MMM involves the group-focused, or binding, moralities, of which social justice is the component associated with prescriptive morality.

Fairness and Social Justice can easily come into conflict. The method referred to as fairness uses input-based deservingness to allocate resources. However, resources allotted according to individual merit can result in an unfair distribution of such resources on the group level. Such a distribution would violate values of social justice, which allots resources on the basis of group membership. For instance, allocating funding to schools based on the individual incomes of students' families would result in an unequal

distribution of funding across schools situated in high- and low-income communities. Allocating funding in accordance with social justice would pool money sources (e.g., property taxes, donations, etc.) across a city or state and would divide the proceeds relatively equally across schools.

The past work closest to this understanding of fairness and social justice is a 1981 paper by Brickman and colleagues (Brickman, Folger, Goode, & Schul, 1981), in which they distinguish between microjustice and macrojustice. Microjustice requires and involves individual recipients, whereas macrojustice involves the aggregate distribution of rewards in society. This theoretical chapter explains that in various situations, treating individuals in accordance with microjustice may produce what seems to be an unjust distribution of rewards among groups. Moreover, Brickman and colleagues present evidence demonstrating that although people may initially use microjustice to make decisions, they are unhappy when this rule results in negatively skewed distributions across groups (Brickman, et.al., 1981). Thus, fairness is akin to Brickman et al's (1981) microjustice, and social justice is akin to macrojustice.

Distinguishing between these two rules of distributive justice--individual deservingness and group-based equality--has been explored in the past more theoretically than empirically. Sampson (1975) puts forth the concept of "justice as equality" and suggests that "equality" and "equity" often conflict in the real world, but individual and contextual differences may predict which is valued in any given situation. Cohen (1987) expands on this distinction but makes a clear argument for the necessity of empirical research as there are a number of confusing conceptual frameworks and terms that encompass what he refers to as rules of distribution that either do or do not differentiate

between individuals by some level of input. Wenzel (2004) picks up this thread but emphasizes the role of group membership in his chapter dedicated to a “social categorization approach to distributive justice” wherein two empirical studies suggest that identifying with a subgroup predicts greater preference for equality over self-interest.

Research on social justice as a moral value is limited, but some preliminary studies suggest that it is indeed distinct from fairness, as well as aligned with lay understanding of the concept of social category-based equality. In an exploratory study, Bharadwaj and Janoff-Bulman (in preparation) asked 70 college students to give examples of fairness and unfairness or social justice and social injustice. Independent coding revealed that when asked about fairness and unfairness, participants used more words involving a collection of unrelated people, reciprocity, proportionality, and specific events such as sharing the cost of a meal; when asked about social justice and social injustice, participants used more words about people in social categories, instances of discrimination or prejudice, ongoing phenomena such as the fight for gay marriage or the Black Lives Matter movement, and group membership.

In another study, five-item measures of Fairness and Social Justice were developed to assess the degree to which they may be related or orthogonal. The five-item Fairness Scale was adapted from the Preference for the Merit Principle Scale (PMP; Davey, Bobocel, Hing, Zanna, 1999). Five items that specifically endorsed rules for rewarding individual contribution were chosen from the PMP to create the Fairness Scale. The statements were rewritten to reflect groups in society and vague rewards, rather than the original words that specified pay in a workplace environment. Examples of statements in the Fairness Scale include: “In society, people who do a good job ought

to rise to the top” and “The effort a person puts into something ought to be reflected in the size of the reward he or she receives” [see Appendix A for full scale]. Participants also completed the five-item Social Justice scale from the Model of Moral Motives (Janoff-Bulman & Carnes, 2013, 2014). Examples of statements in the Social Justice Scale include “In the healthiest societies, those at the top should feel responsible for improving the wellbeing of those at the bottom” and “It is our responsibility, not just a matter of personal preference, to provide for groups worse off in society” [see Appendix B for full scale]. A filler task was included between the measures of Fairness and Social Justice: participants completed 14 items from the Carver and White’s (1994) Behavioral Inhibition/Activation Scale. The scales were counterbalanced and administered to 202 participants: across both time points, Fairness and Social Justice scores were uncorrelated with no order effects, suggesting that they are both independent moral values that people can endorse simultaneously.

In general, self-interest motivations would suggest that high social class should be associated with greater preferences for fairness over social justice when the two are in conflict, whereas low social class would be associated with the opposite. Because this association has not been directly tested, the following review will serve to inform the proposed dissertation studies regarding the factors beyond self-interest that matter when predicting the influence of social class on preferences for social justice versus fairness.

#### **D. Social Class and Social Justice – Literature Review**

##### **1. High Social Class Predicts Low Support for Social Justice**

A major theme of research on status is the desire for those with high status to maintain their position, and for those with low status to move up in the world (Fiske,

2010). This can be explained by the value of status, which is immediate and socio-biological in nature in that it coordinates interactions by allowing those with high status to command attention, bind groups together, and command deference (Chance & Jolly, 1970). In the long-term and at the group level, status “opens doors,” conferring agency, choices, resources, and the ability to impart such position to offspring and ingroup members (Fiske, 2010).

Considering these advantages, self-interest in gaining and maintaining status should be high and several lines of work suggest that this is indeed the case. More specifically, research on SES and concepts associated with the distribution of resources in society suggests that, in general, people think, feel, and act in ways that allow them and their ingroup members to maintain status in a social hierarchy; they should, by extension, not support social justice.

Relatively abundant resources and elevated rank afford upper-class individuals increased control over their lives, reduced exposure to external influences, and more personal choice, all of which promote greater independence and self-focus (Piff, 2013).

Foremost, cognition and beliefs associated with high SES include the cognitive simplicity of hierarchy, beliefs about deservingness, support of a meritocracy, beliefs in essentialism, and denial of inequality in the pursuit of status, all of which are discussed below. These characteristics of the upper class would rationally be associated with a greater tolerance for inequality and less support for social justice over fairness as a moral value.



First, hierarchy (versus egalitarianism and, by association, social justice) appears to be the cognitively simpler and more basic concept for all, regardless of social class; hierarchical relationships are understood developmentally earlier, faster, and more easily than egalitarian relationships (Van Berkel, Crandall, Eidelman & Blanchard, 2015). Under several types of cognitive load, including alcohol intoxication, interfering auditory tones, instructions against effortful thinking and ego depletion, Van Berkel, et al. (2015) found that subjects endorsed hierarchy over egalitarianism when they didn't have the time or cognitive capacity to think about their responses. This effect held true for values (participants supported power values over those of benevolence and universalism), attitudes (participants more strongly endorsed the authority/hierarchy moral foundation from Moral Foundations Theory, Haidt & Joseph, 2004), and behavior (participants preferred to allocate more resources to high status groups in a laboratory activity). This preference for hierarchy over equality would likely be heightened by higher social class, an extension supported by Social Dominance Theory, which posits that preferring hierarchy is a personality trait that predicts more negative attitudes towards the poor in high-SES groups but not in low-SES groups (Pratto, et al., 2000; Bernardo, 2013).

Second, possessing high status tends to translate into beliefs about deservingness of that status through attribution biases (Major, 1994). When people enjoy high status, it is protective of one's self-worth to believe one has earned this, rather than attributing position to a random and unpredictable system (Pratto & Stewart, 2012). If position is random, it can be taken away and doesn't continue to confer the same advantages. Therefore, because people are motivated to believe they (Steele, 1988) and their groups (Tajfel & Turner, 1986) are inherently good and moral, people who believe they are high

status generally turn to dispositional attributions and explanations based in personal merit to explain their position in society (Kraus, Piff & Keltner, 2009). In a 2013 study, participants' subjective social class ranks were positively correlated with a belief in an existing meritocracy and generalized proportional fairness; higher SES was associated with stronger beliefs in ideas that would reinforce their own deservingness (Kraus & Keltner, 2013). Interestingly, these effects were mediated by an increased sense of participants' personal control over their own life choices, suggesting that the cognitive effects of long-term high status are based in the realities of the advantages of possessing it.

Third, these beliefs in the meritocracy and general deservingness in the world also lead to stronger beliefs in essentialism: the idea that the social categories people belong to are fixed, unchangeable, have biological foundations, and can accurately represent their members (Mahalingam, 2003). Kraus & Keltner (2013) extended essentialism scales of other social categories (i.e. race) to develop a 10-item SES essentialism scale. Items included "It is possible to determine one's social class by examining their genes" and "It is easy to figure out another person's social class just by looking at them." Correlational studies with this scale and measures of subjective and objective social class revealed a strong positive association: increased subjective (but not objective) social class was associated with increased endorsement of both the discreteness and biological foundations of social class categories. In addition, the authors found that beliefs in generalized proportional fairness mediated the relationship between subjective social class and essentialist beliefs about class categories.

Prior research has also sought to extend intergroup theories of race and gender to SES. However, although social class may be objectively divided into three to six discrete groups (e.g., working poor and upper middle class), and some may believe in the essentialism of class, most people are not aware of the details of these distinctions (Dugan, 2012). Most importantly, while members of social classes have differing ideas about the essentialism of their class, it is less clear whether members have strong entitativity with other members, failing to consider the group an interdependent, coherent unit (Lickel, 2006). Indeed, the vast majority of Americans believe themselves to be middle class, regardless of their actual position in the socioeconomic hierarchy (Dugan, 2012). Therefore, while realistic group competition theory and group position theory might explain how other high status groups are motivated to maintain their position, these theories may be less applicable to socioeconomic status. The key characteristic of class, then, is that it is rooted in more nuanced and individual social comparison, and one's perception of one's own social class changes depending on whether the comparison is being made to those above or below them.

One interesting consequence of social comparison being a large component of social class is the overwhelming tendency of Americans to deny the current state of income inequality. In a 2011 study, Norton & Ariely found that Americans objectively preferred an income distribution such as Sweden's where each quintile earns roughly the same percentage of the national income. Then, when asked to estimate the proportion of wealth earned by each quintile in the US, Americans vastly underestimated the earnings of the upper quintile: respondents estimated that the rich earned 59% of the total income of all Americans, while the reality is that they earn 84%, a 25 point difference. Moreover,

upper class participants were even less accurate than low SES participants at estimating income inequality in the US (Norton & Ariely, 2011). The authors theorize that this disconnect between participants' estimates of inequality and the actual objective reality arises not from ignorance but from a sort of cognitive dissonance; enjoying unfair advantage over others due to no input on one's own part works against a need to believe that one is good and moral. Indeed, those who feel this existential guilt are more likely to accept their wealth was partly earned through birth and fortune. If this cognitive dissonance is a primary motivation capable of biasing our understanding of reality, the desire to work in opposition to a meritocracy in favor of social justice should be rare.

Furthermore, wealth, deservingness and essentialism are associated with certain political ideologies; specifically, increased wealth and stronger beliefs in meritocracy are associated with political conservatism, while the opposite is true of political liberalism. However, wealth in itself interacts with political identity to predict support of policies that perpetuate inequality. Kraus & Callaghan (2014) conducted a study of members of Congress, taking into account their political party, personal wealth, and support for bills that reduce inequality. As personal wealth increased, support for bills that reduce inequality decreased, even accounting for political party pressure. In particular, the authors found that Democrats were less likely to support bills that reduced inequality as wealth increased, while Republicans were more consistently unsupportive.

Combined, these beliefs serve to help maintain status in the social hierarchy, which is in the self-interest of both those who have achieved high status and those who aim to do so. Believing that one deserves to possess his or her status and that others can

work to achieve the same if they were only capable also extends to a link between SES and other kinds of moral emotions, attitudes, and behavior.

Research on SES and emotion has suggested that higher status individuals feel and express more positive emotions (Gallo & Mathews, 2003). On the other hand, a few studies show that because higher status individuals are less likely to engage with others (e.g. showing less attentive behavior, less accurately reading emotions, etc.), higher social class also predicts less empathic accuracy and compassion (Stellar, Manzo, Kraus & Keltner, 2011). In a set of four studies, the authors showed that higher class individuals reported less dispositional compassion across situations, less compassion in reaction to others' suffering, and that this link between SES and compassion was mediated by less of a tendency to perceive context and accurately perceive distress in others as social class increased. This relative decrease in compassion, combined with social class comparison bias, provides two reasons higher social class would predict more tolerance of inequality: not only are high status groups less aware of it, they are also less likely to identify the distress of low status others and feel compassion towards their plight.

Beyond emotion, how are moral attitudes and behaviors related to SES? On a large scale, nationwide, upper class households donate a smaller proportion of their income to charity than do lower class households (Piff, Kraus, Cote, Cheng & Keltner, 2010). On a smaller scale, several studies have also suggested that higher social class is associated with less prosocial behavior including generosity, charitable donations, trusting behavior, and helping behavior – all independent of ethnicity, gender, and religiosity (Piff, et al., 2010).

Similarly, in one set of seven studies on SES and unethical behavior, upper class participants were more likely to cut off other drivers or pedestrians while driving, and more likely to report that they would engage in activities involving “unrightfully taking or benefiting from something” (Piff, Stancato, Cote, Mendoza-Denton, Keltner, 2012). They were also more likely to lie in a laboratory interview and cheat at a game of chance. These effects were mediated by positive moral attitudes towards greed, and experimentally manipulating these attitudes led to unethical behavior across class measures.

A sample of Dutch nationals with objective measures of SES suggests an extension of these findings and points to the content of immorality as a likely mediator of the relationship between SES and unethical attitudes and behavior. Specifically, Trautmann and colleagues (2013) suggest that high and low social class individuals live in different moral matrices where the upper class care more about victimless crimes against the community while personally harmful crimes are more tolerable. Relationship infidelity, for example, is more acceptable to the upper class, but lying for welfare benefits is considered more immoral. The authors suggest that these differences in moral attitudes are related to self-interest and opportunity, pointing to a cost/benefit analysis of morality; if roles and positions in the social hierarchy were reversed, they believe most people wouldn't hesitate to grasp potentially immoral opportunities to further self-interest (Trautmann, van de Kuilen & Zeckhauser, 2013). If other kinds of moral emotions, behaviors, and attitudes are largely motivated by self-interest among the high social class, low support for social justice and a high tolerance for inequality should follow the same pattern of motivation. The research on SES and deservingness, essentialism, and

prosociality seems to confirm the extension for those of high social class, but does the self-interest motivation hold for those of low social class?

## **2. Low Social Class Predicts High Support for Social Justice**

Lower socioeconomic status is generally related to a more accurate understanding of the reality of income inequality and more support for liberal policies related to economic redistribution (Norton & Ariely, 2001; Brandt, 2013). Thus, in keeping with self-interest as a strong motivator, there are parallel explanations for why low socioeconomic status should predict low tolerance for economic inequality and high support for social justice similar to the self-interest motives of high SES individuals.

In general, research on low-income individuals and their support of equality and redistribution is limited, and any studies that do address this group generally show findings that are the opposite of those for high-income individuals. For example, just as high SES is associated with stronger beliefs in, and preference for, deservingness, meritocracy, hierarchy, and class-based essentialism, low SES is negatively associated with all of these (Kraus & Keltner, 2013; Bernardo, 2013). Several empirical studies also demonstrate that low social class predicts a higher dependence on contextual (vs. dispositional) explanations of inequality and personal outcomes, and that this association is mediated by a diminished sense of personal control (Kraus, et al., 2009). This reliance on situational explanations stemming from the apparent lack of choices perceived by those living in poverty may be related to the decreased emphasis on meritocracy and class-based essentialism.

Moreover, the studies linking high SES with less prosocial emotions, attitudes, and behavior similarly suggest that low SES is associated with higher levels of empathic

concern, sympathy, compassion, charitable giving, and helping behavior (Piff, et al., 2010; Stellar, et al., 2011; Piff, et al., 2012). Low SES is also related to harsher moral judgments of harmful transgressions against the group, suggesting an intolerance for moral violations in general when under the strain of reduced material resources (Pitesa & Thau, 2014). International research also suggests that lower SES is related to a greater emphasis on interdependence and relational concerns (Snibbe & Markus, 2005; Hitokoto, 2014). Thus, a decreased belief in meritocracy and class-based essentialism combined with an increased emphasis on prosociality and interdependence would align with the assumption that low social class would be associated with greater support for social justice. Yet, the self-interest motive does not appear to be embraced by all when it comes to the relationship between SES and support of social justice. The following two sections address the various possible explanations for why those of high social class might support social justice and why those of low social class might not.

### **3. High Social Class and High Support for Social Justice**

As discussed, the psychological experience of high social class tends to correlate with belief in concepts that would not support social justice. However, surveys such as the 2015 Gallup poll consistently identify a substantial minority of high social class individuals who apparently do support redistribution and the mitigation of socioeconomic inequality. If believing and acting in support of social justice works against self-interest for people of high social class, what are possible explanations for this seemingly altruistic behavior? Not surprisingly, most of the proposed hypotheses relate to affect, in contrast to the cerebral explanations related to self-interest. Increases in income actually predict increases in social trust, a key component of support for social justice (Brandt, Wetherell



& Henry, 2014). But the strongest explanations for high class predicting high support for social justice include guilt, empathy, and anger (moral outrage), in addition to strong helping values and the possible cognitive ease of endorsing equality across groups. Overall, however, all of these explanations are both supported and negated by different studies and the literature as a whole is limited, leaving a gap in the research that may be partially filled by the psychological mediator presented at the end of this review.

First, guilt can be a strong motivator to rectify situations and existential guilt has been proposed as an explanation for why high social class might predict less tolerance of inequality. Existential guilt is composed of equal parts the perception that one's advantages were not earned and/or deserved, and the perception that one is responsible for this inequality because one's advantages are enjoyed at the expense of the disadvantaged (Montada & Schneider, 1989). First proposed in the 70s to explain White participation in the Civil Rights movement, existential guilt (along with empathy and moral outrage) was explored in a large survey of over 800 German citizens whose existential guilt somewhat predicted prosocial commitments (Montada & Schneider, 1989). However, empathy and moral outrage were shown to be far stronger predictors of prosociality and intolerance of inequality, and were also highly correlated with existential guilt, suggesting that it may be a secondary or associated emotion but not a primary motivation.

Second, a large body of research does suggest that empathy is associated with more prosocial behavior; consider for example, the "empathy-altruism hypothesis" in which empathy predicts helping behavior (Batson, 1991; Eisenberg & Morris, 2001). Specifically, empathy has been defined as an affective state associated with an ability to

take others' perspective and feel concerns for others in distress (Decety & Yoder, 2016). On the trait level, specific links between empathy and social inequality are even suggested in a "social empathy" model in which an empathic disposition allows a person to take a group's perspective and more "deeply understand...structural inequalities" (Segal, 2011). However, the antecedents that predict such trait empathy are still less understood, especially considering that wealth is negatively correlated with empathy (Stellar, et al., 2011).

Hoffman (1990) puts forth a sequence of theories regarding the emotional motivations for group-based prosociality associated with empathic distress over another's plight. He suggests that empathy for another is "cognitively extended" when a person imagines such issues as homelessness and hunger, thereby evoking the same feelings towards a group that one would experience if they were directly witnessing another's pain. Then, as long as the person feeling empathy believes either they or someone else is at fault for this distress, empathy would serve as a "justice motive," encouraging rectifying large social injustices (Hoffman, 1990).

However, empathy is a complex emotion in that it also motivates attempts to decrease one's own very real distress – and the cognitively easiest way to do so would be to decide the victims themselves are to blame, thereby absolving oneself of any personal guilt or anger at a separate perpetrator who could have caused the victim's distress. Indeed in their model of allocation of resources, Skitka & Tetlock (1992) provide evidence that, especially under resource scarcity, attributions of the cause of a victim's misfortune are paramount: participants denied aid to those whom they felt were directly responsible for their own plight. Furthermore, empathy itself or any measure of

dispositional empathic concern wouldn't necessarily predict a preference for fairness or social justice. This is because empathy requires a target and this target may vary; empathizing with those who supposedly work hard or earn their privilege would predict preference for fairness just as much as empathizing with those who may be disadvantaged because of their group membership would predict preference for social justice. Moreover, contrary to Hoffman's assertion that sympathy is always associated with increased prosociality, Batson (1991) asserts that without emotional self-regulation, heightened empathic responses can result in an intense negative affective state that results in personal distress and a focus on the self, a state that would not lead to preference for group-based egalitarianism. Indeed, a 2008 empirical study shows that manipulating empathy increased concern for another subject's outcomes but did not change the individual's concern for outcomes related to larger egalitarian values (Lange, 2008). Essentially, empathy for the specific needy other did not directly translate into concern for larger social groups or more abstract societal causes. Furthermore, research on allocations of resources showed that both self-interested egoism and inducing empathy for a specific other resulted in equally reduced allocations to the larger ingroup, serving as equal threats to the common good (Batson, et al., 1999). Last, some studies suggest that people are more likely to feel empathy for those most similar to them, suggesting a barrier to feeling empathy for those in different social groups (Hoffman, 2000). Therefore, the question still exists: what motivates a person who feels empathy for those suffering from social injustices to want to rectify the injustices among the group at large rather than take any other attitude or action involving self-interest or helping a specific needy other?

Perhaps the answer lies with a third option: besides empathy and guilt, anger has been shown to be a strong moral emotion with motivating properties. However, research on moral outrage is extremely ambiguous: while some research supports moral outrage as a unique form of anger at the violation of a moral value, several studies also show that what is called “moral outrage” is actually not distinct from anger at personal or close others’ distress. Moral outrage, defined as a powerful moral emotion, has been utilized in many recent studies and positively associated with prosociality: Van de Vyver and Abrams (2015) found that inciting “moral outrage” in relation to a wronged third-party other predicted prosocial financial and political behavior, and Tan, Liu, Zheng and Huang (2015) found that reduced moral outrage predicted greater intentions of corrupt behavior. However, by experimentally manipulating conditions that should differentially produce moral outrage and anger at personal disadvantage, O’Mara and colleagues (2011) found that subjects only reported anger when they were themselves the victim of unfair treatment, but not when a stranger was treated the same way. Uehara, et al. (2014) showed that this kind of “moral outrage” was also applicable to close others and people with whom a shared identity had been created (i.e. Japanese). Batson and colleagues (2007) suggest that the underlying mediator is actually empathy: a similar experimental manipulation was effective at provoking anger at unfair treatment as long as empathic concern for the stranger had been generated experimentally first, but the concern was both temporary and specific to the target needy other.

Beyond emotional motivations, one possible explanation for high social class individuals’ belief in social justice lies in presuming that group-based equality is cognitively easier and less taxing than understanding and perpetuating a hierarchy of any

sort. However, several studies refute this claim and in fact demonstrate that endorsing a hierarchy is the primary mode of thought, while social justice requires a “cognitive override.” Skitka & Tetlock (1993) explored the idea that egalitarianism was a “mindless” allocation rule, allowing people to distribute resources without attending to need, efficiency, or attributions for cause. However, when participants were experimentally manipulated to think deeply about allocating specific resources to a detailed list of options, egalitarian allocations remained unchanged. This is supported by studies showing that, under several types of cognitive load, people were more likely to endorse values, attitudes, and behavior in line with hierarchy over egalitarianism, which required more extensive deliberation (Van Berkel, et al., 2015).

Lastly, it may be true that rather than being driven by existential guilt, empathic concern for similar others, or moral outrage at the violation of a moral value, high social class individuals who endorse group-based equality are simply altruistic and strongly believe in helping values. Although empirical research suggests that higher social class is actually associated with less helping behavior (Piff, et al., 2010), one study linking helping and status suggests that purposefully choosing to be the target of helping requests was an effort to maintain high status in exchange relationships (Flynn, Reagans, Amanatullah & Ames, 2006). This particular association may provide an explanation that reconciles both the self-interest motivation to maintain status and the emotional motivation to help others. In an effort to understand the underpinnings of social justice, I analyzed a large-scale survey of over 1,000 Psychology students at a large, liberal university in which participants completed several measures including three regarding helping values, fairness, and social justice. Helping values included such items as “a

decent person will go out of his or her way to help others” rated on a 9-point likert scale. An OLS regression showed that Helping was a strong predictor of Social Justice scores ( $\beta = .51, p < .001$ ) and Fairness scores ( $\beta = .52, p < .001$ ). However, importantly, Fairness was not a significant predictor of Social Justice scores ( $\beta = .05, p = .51$ ). Moreover, even combined, these two variables only explained 19% of the variance in Social Justice scores, leaving 81% unexplained by helping values. Therefore, even if strong helping values are associated with endorsing social justice, it is not the only, nor the majority, of the explanation for why high social class might predict greater support of social justice.

In fact, in a conceptual paper describing several motives that drive prosociality on a large scale, Batson and Ahmad (2002) argue that altruism, egoism, and collectivism are all flawed in that they are often variable and temporary, as emotions tend to be, and only emphasize a smaller ingroup worthy of help. The paper then calls for exploration of a more inclusive, rational, and consistent moral motivation that might drive broad prosociality besides self-interest or empathy-induced altruism. Principlism, the aim to uphold any moral principle or value, is proposed as just such a large-scale, rational and consistent motivation. Principlism isn't specific to a certain person, group, or situation, and isn't subject to the transience of emotional motivation. Social justice could very likely be one form of principlism. If so, this would fit with the data showing that neither self-interest nor helping values make up the majority of social justice beliefs, and establishes social justice as an important moral value in need of further investigation. Still, the research on empathy and helping values leaves the question of why there are people of high social class who support social justice against self-interest largely

unanswered. To answer this question, a potential psychological mediator will be presented that may help bring disparate studies and explanations together into a more cohesive model.

#### **4. Low Social Class and Low Support for Social Justice**

First, though, the explanations for why people of low social class might not support social justice must be addressed. If self-interest is assumed to be a primary motivation, low social class would predict a higher intolerance of socioeconomic inequality and an active belief in social justice as these attitudes would move towards advantaging the self and the ingroup. However, studies show that this association is not as strong as would be predicted, so proposed explanations for this lie in negative emotions and stress, the cognitive simplicity of hierarchy, and System Justification Theory.

First, a review of the relationship between socioeconomic status and health outcomes suggests that negative emotions mediate this association; specifically, lower class individuals are far more likely to report higher levels of depression, anxiety, anger, hostility, and hopelessness (Gallo & Matthews, 2003). These concepts have been integrated in the reserve capacity model in which low SES predicts decreased stress-management resources through psychosocial pathways, resulting in “enhanced emotional and physiological reactivity to stress” (Gallo, 2009). The associations between low SES and negative affect are also embodied in behavioral outcomes such as increased interpersonal conflict and work strain (Matthews, et al., 2000). How are increased stress and negative affect relevant to beliefs about inequality? Stress and negative emotions are known to narrow perspective in many ways, including promotion of local (rather than

global) processing and focus on concrete (rather than abstract) construal level (Derryberry & Reed, 1998; Watkins, Moberly & Moulds, 2008). Stress and negative emotions acting as cognitive load can also predict more utilitarian moral decision-making in line with the cognitive ease of preference for hierarchy (Starcke, Polzer, Wolfe & Brand, 2010; Van Berkel, et al., 2010). Thus, the reality of the strain of low SES might induce a more restricted world view in which the cognitively easiest path of tolerance of inequality is chosen for the sake of simplicity.

The systematic extension of this idea is presented as a coherent model in over twenty years of research both supporting and critiquing System Justification Theory:

“... system justification theory proposes that people actively defend and bolster existing social arrangements, often by denying or rationalizing injustices and other problems, even when doing so comes at the expense of their personal and group interests” (Jost, Banaji & Nosek, 2004).

Explanations for why people engage in system justification include the previously proposed cognitive ease of hierarchy, need for structure and closure, as well as emotional stability from justifying the status quo (Jost, Pelham, Sheldon & Sullivan, 2003).

Essentially, justifying the system and its outcomes may be one resolution to the cognitive dissonance that arises from recognizing that the system disadvantages specific groups and not actively fighting against it (actions costing considerable momentous effort), which translates into passively supporting it. The consequences of system justification for income inequality are harmful in that they predict less support for social change and redistribution of resources, presumably by reducing “moral outrage” (Jost & Hunyady, 2005).



Empirical support for system justification in women and racial minorities is specific to those categories, suggesting that the ideological motivation to justify the existing system results in an internalization of inferiority, particularly on an implicit level. However, System Justification Theory is especially complex in the context of socioeconomic status because, unlike race or gender, individuals can and do sometimes experience mobility between categories and, indeed, aspiring to do so is an accepted attitude. Group dynamics research suggests that system justification is particularly high when ingroup ambivalence and outgroup favoritism are high, which is often the case with low SES individuals (Jost & Burgess, 2000). Support for economic system justification also lies in the stereotypes people hold about social class as social groups. Kay & Jost (2003) found that activating a combination of stereotypes of “poor but happy,” “rich but unhappy,” “poor but honest,” and “rich but dishonest” differentially increased support for system justification.

However, research on system justification theory as it relates to socioeconomic status, income inequality, or redistribution of resources is not as rigorous as the focus on race or gender. There are few studies that specifically refer to economic inequality, and those that do often make use of one or two limited measures. For example, in a 2003 survey of over 1,000 Latino-Americans in the Chicago area, participants responded to questions about income, education, occupation, and a single item on income inequality asking to what extent differences in pay are required as incentive for people to work hard (Jost, et al., 2003). Although this statement was endorsed more by low-income Latinos than high-income Latinos, the statement itself hardly represents the concept of social justice in its entirety. Similarly, a survey of over 1,000 African-Americans suggested that

low SES more strongly predicted agreement with the single statement that “large differences in income are necessary for America’s prosperity” (Jost, et al., 2003). Although this was assumed evidence for legitimization of income inequality and reduced support for equal wealth distribution, the single item doesn’t represent these concepts either accurately or completely. In fact, even an accepted measure of economic system justification used by Jost & Thompson (2000) uses items on what can be defined as fairness (reverse-scored), social justice, and social class essentialism – three concepts that are qualitatively different and not necessarily correlated or orthogonal.

The relative strength of system justification in high versus low SES groups remains under debate. While Jost and colleagues maintain that system justification is often higher among low SES individuals, Brandt (2013) presents data suggesting that, in fact, status-legitimizing beliefs are not different depending on income, education, occupation, or national inequality measures. However, similar to most research on SES and SJT, Brandt only takes into account the effects of SES on legitimization of the political system and trust in government, rather than economic systems and outcomes.

Nevertheless, in an attempt to test system justification in populations experiencing severe global disadvantage and inequality, Henry & Saul (2006) conducted a large-scale survey of over 400 adolescents from the poorest urban and rural areas of Bolivia, a severely underdeveloped nation. Although the results were published as confirmatory of system justification, the population’s characteristics and the measured variables again did not align: while the distinctive characteristic of these subjects was their socioeconomic disadvantage, the questions they were asked focused on the political power of the

government rather than a far more relevant system of economic inequality. Therefore, the question of how system justification is related to social justice is left largely unanswered.

The relationship between fairness and system justification might have more research support. Several empirical studies demonstrate that system justifying beliefs motivate meritocratic beliefs, suggesting that fairness principles might be preferred over social justice in low-SES groups (Ledgerwood, Mandisodza, Jost & Pohl, 2011). In a study of Swiss adolescents, beliefs in school meritocracy were found to be positively related to system justification in students from low SES families, but not high (Wiederker, Bonnot, Krauth-Gruber & Darnon, 2015). However, even if meritocracy beliefs and consequent system justification beliefs allow low-SES groups to believe that movement up the socioeconomic hierarchy is possible, research on social mobility (as discussed earlier) suggests that the reality is contradictory. Perhaps system justification measures reflect opinions about the overall proportional equity of the economic system as it is, and fairness as a moral value measures how it should be.

System justification theory, then, is the primary existing explanation for why people of low social class might reject social justice and, passively or not, support inequality. However, the research on SJT and socioeconomic status appears to use measures that are either single items or inappropriately focused on other aspects of the system.

In sum, if self-interest is considered a primary motive, several empirical studies support the idea that higher SES would predict less support of social justice through beliefs in deservingness and essentialism, while lower SES would predict greater support of social justice. However, since people at all levels of the socioeconomic hierarchy seem

to support and oppose redistribution of resources for group-based equality, the question remains as to why all people of high social class don't reject social justice or why all people of low social class don't support it. Explanations for how high SES might still predict support for social justice are not adequate; moral outrage may not be different from personal distress, and empathy and helping are not the major components of social justice. Moreover, empathy for specific needy others has not been shown to be able to be extrapolated to large groups or causes in society, making increased contact between high and low social class groups an unlikely explanation as well. In addition, relying on emotional motivations for benefiting the common good has not proven effective due to their inconstancy and tendency to be focused on the ingroup (Batson, et al, 1999). The connection between low SES and reduced support for social justice through system justification is similarly tenuous: measures of independent and dependent variables in the studies examined are insufficient and do not align with the conclusions drawn. Furthermore, the literature does not provide a single, overarching concept to explain the mixed social justice attitudes of both the high- and low-income groups.

## CHAPTER 2

### INDIVIDUATED/CATEGORICAL PERSPECTIVE

#### A. Literature Review

Although the question is undoubtedly complex, one social psychological concept may provide a part of the cognitive basis for understanding why social class is not simply and directly related to attitudes towards socioeconomic inequality. This concept is the extent to which one views the self and others as individuated entities with unique abilities or as similar members of groups who belong to social categories. Perceiving the self and others as individuated entities would lend itself to supporting a number of other beliefs antithetical to social justice: system justification, the protestant work ethic, a meritocracy, more unethical behavior, less compassion for others, and a general unwillingness to work for the common good, especially against self-interest. After all, if one is individuated, the community or the social category is less of a relevant concept to the self and identity. Most importantly, the individual can work within the system to succeed, reliant on only one's own strengths and abilities to move up the ladder of social class – a belief supporting individual deservingness and proportional fairness over social justice. On the other hand, perceiving the self and others as group members who belong to social categories would be far more conducive to the support of social justice, as well as associated prosocial attitudes and behaviors including compassion, helping values, and ethical behavior. If one's success is tied to the relative success of others, the community, or the social category, then a system that engenders inequality between us cannot be either correct or acceptable, thus increasing support of social justice.

The most relevant support for the distinction comes from Wenzel (2004) in which participants were more likely to favor equality in resource allocations for themselves and others when conditions made a primary self-relevant social category salient, thereby deindividuating potential recipients and emphasizing social categories. Compared to other conceptualizations of equality, this research comes closest to social justice in that prosociality and equality are achieved by not just benefiting those who have less, but doing so by taking from those who have more.

One hypothesized extension of these results to people and social categories would be that interdependence and social justice require similar conceptual perspectives, thinking about the larger context and similarities with others. Several studies have used different measures of self construals to grasp how people are thinking about individual deservingness and group membership-based equality. In an exploratory 2007 study on self-construal styles, results showed that manipulating an interdependent self-construal induced stronger reactions to injustice and moral concerns (Gollwitzer, M., & Bucklein, K., 2007).

Connecting self-construal and micro/macrojustice, Zdaniuk and Bobocel (2011) assessed participants' independent self-construals and found that high scores were associated with lower endorsement of macrojustice and lower support for Affirmative Action. We interpret Affirmative Action as a prime example of when the values of fairness and social justice come into conflict. On the one hand, colleges aim to recruit students who display exceptional academic merit. However, admissions policies also take into account other considerations such as past hardship, extraneous circumstances, and, most importantly, group membership. Making admissions decisions on individual

deservingness and merit alone would result in a negatively skewed distribution of admissions concentrated in groups with access to more resources. Thus interpreted from our perspective, Zdaniuk and Bobocel (2011) found that people who defined themselves in terms of their independence from others were less likely to use what we would consider a social justice lens and instead relied on a fairness lens when considering Affirmative Action.

However, the distinction between individuated or categorical thinking is probably not limited to perceptions of people; it is more likely the case that these distinctions apply on a deeper, cognitive level and encompass a way of thinking in general.

Thus, even on a cognitive level, research conducted in the field of construal level theory supports the distinction made here. Construal level theory maintains that objects, events, individuals and other concepts can all be mentally represented at either higher or lower levels. Higher level construals are associated with abstract thinking, greater mental distance, and overarching categorizations that see similarities and correspond to the purpose of the representation; lower level construals are associated with concrete thinking, specific details and differences, less structure, and correspond to the context of a representation (Trope & Liberman, 2010). Several studies suggest that higher construal levels and abstract mindsets are associated with greater social distance and a preference for moral principles over situation-specific considerations (Trope, Liberman & Trope, 2011; Eyal, Liberman & Trope, 2008). Furthermore, a higher level construal is associated with greater group identification and seeing similarities between people (McCrea, Wieber & Myers, 2012). Lastly, in judging moral dilemmas, an abstract/higher level perspective taken by creating social distance appears to focus attention away from individuating

information and specific contextual details towards categories and abstract moral principles.

The individuated -categorical distinction may look similar to other distinctions made in the field in relation to other domains. However, the distinction most likely transcends cross-cultural understandings of individualism versus collectivism. Although it may align with definitions of a collectivist culture, the distinction is probably most useful if considered valid within cultures, existing even in Western cultures prone to individualism. For example, a study of individualism and collectivism in Italy demonstrated that great variance exists within Italians, and that social class and other circumstances only partially explained the variance (Knight & Nisbett, 2007). The distinction, first established by Markus & Kitayama (1991) as independent and interdependent self-construals, is extended here because it refers to a perspective that applies to situations and thinking in a general sense.

One other distinction in the social class literature that aligns with this is the solipsism-contextualism spectrum proposed by Kraus, et al. (2012):

“...social class contexts elicit reliable social cognitive patterns among lower-class individuals—characterized by a contextual, externally-oriented cognitive and relational orientation to the world—and upper-class individuals—characterized by a solipsistic, individualistic cognitive and relational orientation to the world.”

(Kraus, et al., 2012)

The authors propose, however, that contextualism and/or solipsism arise from the realities of social class and provide several testable hypotheses based on expecting behaviors and attitudes aligned with what appears to be self-interest within a social class.



For example, lower class should be (and is) associated with increased empathy, increased importance of relationships, and situational attributions (Kraus, et al., 2012). However, no hypotheses about the effects of contextualism/solipsism on beliefs about inequality and social justice are proposed. Furthermore, the individuated-categorical distinction is not confined to a specific social class, like solipsism/contextualism, and, thus, is able to answer questions about why people hold other attitudes that do not align with self-interest according to social class, as well. For example, the individuated-categorical distinction could explain the findings of a 2014 qualitative study of working-class women, which suggested that a lack of material resources often predicted social isolation rather than the connections and interdependence predicted by so many (Stephens, Cameron & Townsend, 2014).

### **B. My Prior Research**

In my own research, several studies support the idea that a perspective focused on individuated information versus categorical similarities might provide a framework with which to understand the mixed associations between social class and beliefs about inequality.

Following the thread of individuated vs. categorical perceptions of others, a preliminary set of studies attempted to examine the relationships between social justice, fairness, and several existing and possibly relevant distinctions. Social Justice was generally positively correlated with such concepts as an Interdependent Self-Construal ( $r = .17, p < .05, n = 300$ ; Singelis, 1994), Collectivism ( $r = .30, p < .05, n = 198$ ; Triandis & Gelfand, 1994), and Collective Self-Esteem ( $r = .12, p < .05, n = 301$ ; Luhtanen & Crocker, 1992). Similarly, Fairness was positively correlated with such concepts as

Independent Self-Construal ( $r = .14$ ,  $p < .05$ ,  $n = 300$ ; Singelis, 1994). Neither Social Justice nor Fairness was correlated with Social & Personal Identity, ( $r = .10$ ,  $p > .05$ ,  $r = -.05$ ,  $p > .05$ ,  $n = 197$ ; Nario-Redmond, Biernat, Eidelman & Palenske, 2004). However, no one concept accounted for more than 12% of the variance in Social Justice or Fairness scores, leaving over 88% of the variance unexplained by existing concepts.

A second avenue of study attempted to manipulate individuated and group-based thinking by asking subjects to consider either their similarities with or differences from close others. Perhaps by activating thoughts about others in general, both primes marginally increased participants' sensitivity to implicit social justice violations in real-world scenarios compared to a no-prime condition. Next, a third study asked participants to report identification with a personal strength (individual), a general group, or a specific social category. Results involved a prime-by-individual difference interaction whereby participants who were already high on social justice showed increased sensitivity to it when primed with a social category, but not with a personal strength or general group. Participants who were low on social justice were not significantly sensitive to any of the primes. Although these studies suggest some support for the individuated-categorical distinction, the manipulations and dependent measures require further revision to be conclusive.

To extend the distinction to cognition, social justice was hypothesized to involve a style of processing that promotes thinking about the "big picture." Because Fairness is believed to involve a restricted perspective of specific units of exchange, it was predicted that this would be connected to a concrete cognitive framework focused on details, rather than the big picture. Conversely, because Social Justice involves an inclusive, horizontal

comparison across groups, it was predicted that this broader perspective would be connected to an abstract cognitive framework. One preliminary study thus asked 322 online respondents to complete a Construal Level priming task drawn from Fujita, Trope, Liberman, & Levin-Sagi (2006). In this task, the instructions to the participant determine whether the task primed a concrete construal or an abstract construal level. The “abstract” directions are to list the larger categories that define each of 20 distinct items. The “concrete” directions are to list specific examples of the same 20 items. The control condition did not involve any priming task. Participants also either completed the Fairness scale or Social Justice scale utilized earlier. Participants ( $n = 436$ ) were randomly assigned to one of six conditions crossing abstract, concrete, and no-prime construals with completion of the Fairness and Social Justice scales.

Fairness scale scores did not differ across the three priming conditions (i.e., abstract, concrete, and no-prime control;  $M_s = 5.59, 5.65,$  and  $5.81$  respectively),  $F(2,223) = 1.26, p = .286$ . However, there was a significant difference in Social Justice scores by prime,  $F(2,207) = 3.799, p = .024$ . Post hoc analyses ( $p < .05$ ) revealed that there were no differences between the concrete and control conditions ( $M_s = 5.20$  and  $5.17$ , respectively), but both differed significantly from the abstract prime condition ( $M = 5.67$ ). Inducing an abstract state of mind resulted in higher endorsement of Social Justice, compared with both concrete and no prime conditions, suggesting that Social Justice likely involves a style of processing that promotes thinking about categorical similarities.

In summary, while the relationship between social class and beliefs about inequality would be expected to be simple and direct following the aims of self-interest,

national polls and other research suggest that this is not the case. In both high and low social class groups, a substantial minority of respondents have attitudes towards socioeconomic inequality and redistribution that are not systematically advantageous to them. Encompassing these attitudes about inequality and redistribution as “social justice” – as well as a belief in proportionality and meritocracy as “fairness” – and manipulating the psychological experience of social class through relative comparison in empirical studies may be able to shed light on the source of the variance in the relationship between social class and social justice. Specifically, a cognitive perspective using individuated or categorical thinking may be the explanation for the discrepancy: perhaps thinking in terms of abstract and categorical (rather than concrete and individuated) information is what allows for the support for social justice across social classes.

Studies on multitasking, available cognitive capacity, and construal level suggest that abstract thinking is more effortful and difficult to engage in over concrete thinking (Kazakova, Caubergh, Pandelaere, & De Pelsmacker, 2015). If engaging in abstract thinking is more difficult, this can explain why some may not generally endorse the principles of social justice - across social classes. This may also explain why some people of low social class are less supportive of social justice considering the general stress involved in the realities of low SES and the resulting relative reduction in available processing capacity. Similarly, it may also explain why some people of high social class are more supportive of social justice lacking as they are in those socioeconomic strains.

The following studies aimed to understand the particular relationship between social class, beliefs in social justice and fairness, and individuated versus categorical thinking. Specifically, the following four studies attempted to investigate if this

individuated versus categorical perspective can contribute to understanding the complex relationship between social class and social justice.

**CHAPTER 3**  
**STUDIES 1 & 2**

**A. STUDY 1**

**1. Purpose**

As a step towards systematically exploring the relationship between social class and beliefs about inequality, the first two studies manipulated high and low social class between subjects and measured the effects on support for Social Justice and Fairness. Although national polls and correlational studies suggest generally mixed outcomes, no empirical research has established the relationship explicitly. Manipulating social class within the studies was intended to help establish its effects with more clarity – and help quantify the amount of variability that will certainly exist. Second, Studies 1 and 2 also aimed to examine how the individuated/categorical cognitive perspective is related to social class and beliefs about social justice. Therefore, the extent to which participants are thinking with an individuated or categorical perspective was also measured using two eight-item measures. Studies 1 and 2 were identical except for the dependent measures used: Study 1 utilized two five-item scales to measure support for Fairness and Social Justice while Study 2 used ratings of ten scenarios presenting the two in conflict.

The hypothesized outcomes for Study 1 were that participants in the high social class condition will report lower scores on the Social Justice scale (but not Fairness) compared to participants in the control and low social class conditions, and participants in the low social class condition will report higher scores on the Social Justice scale (but not Fairness). Moreover, a majority of the variance in both dependent measures will be

unexplained by the manipulation, but responses will be strongly predicted by participants' individuated/categorical perspective.

## **2. Methods**

### **a. Participants**

Participants were recruited online through Amazon Mechanical Turk from a diverse and inclusive population in January of 2017. Although 309 participants began the study, seven participants were excluded for incomplete responses, or if the time they took to complete the study was more than three standard deviations above the mean completion time ( $M = 5.8$  minutes). Ultimately, 302 participants were randomly assigned to one of three conditions. Participants provided informed consent and received monetary compensation for their participation of \$0.35, which reflects norms on the MTurk platform.

Participants ranged in age from 18 to 77 ( $M = 36.1$  years,  $SD = 13.04$ ). Fifty-nine percent of the participants were female. The majority of participants described themselves as White (76.5%), 7.9% Black, 5.3% Hispanic/Latino/a, 6% Asian/Pacific Islander, and 2.6% multiethnic.

All participants were located in the U.S. while participating in the study, and 95.7% were born in the U.S. (12 participants were born outside of the US). In terms of current location, 52% of participants were reporting from states that voted for a conservative presidential candidate in the majority of the last eight elections ("red" states); forty-eight percent of participants were located in states that voted for a liberal presidential candidate in the majority of the last eight elections ("blue" states).

In terms of education, 20% of participants reported having a high school degree or GED, 31% associate's degree or some college, 32% bachelor's degree, 15% master's, and 2.6% reported having completed advanced graduate work. Participants also reported household income ranges: median reported household income range was \$40,000 - \$49,999, slightly lower than the national median (\$50,000 - \$59,999, Census 2015).

## **b. Materials**

### 1) Social Class Manipulation

Both of the first two studies operationalized the independent variable as a priming task using a rank ladder manipulation. In this task, participants were randomly assigned to one of three conditions: high social class, low social class, and a control condition. Participants in all conditions were presented with an image of a ladder with ten rungs and a description of the McArthur scale of subjective SES (Adler, Epel, Castellazzo & Ickovics, 2000). Participants were instructed to consider the ladder a representation of “where people stand in the United States” such that the top of the ladder represents those who are best off – with the most money, education, respected jobs, and access to resources – and the bottom of the ladder represents those who are worst off [see Appendix C for full manipulation and instructions]. Similar to the manipulation instructions in Kraus et al. (2010), participants in the high social class condition were asked to write about a hypothetical interaction with someone at the bottom of the ladder and participants in the low social class condition were asked to write about a hypothetical interaction with someone at the top of the ladder. This manipulation has been used successfully to manipulate the comparative nature of social class in relation to others in past social psychological research by providing a strong subjective sense of



socioeconomic status (see Piff, et al., 2010). As a manipulation check, participants were later asked to indicate which of the ten rungs of the ladder best represented their own position in the United States. Participants in the control condition did not write about an interaction, but they did see the ladder's description and indicate their perceived position.

## 2) Social Justice Scale

This five-item measure of social justice ( $\alpha = .87$ ) included such items as “It is important for those who are better off to help provide resources for the most vulnerable members of society” and “Increased economic equality is ultimately beneficial to everyone in society.” All responses were recorded on a seven-point Likert scale with anchors at “1” as “strongly disagree” and “7” as “strongly agree.” All participants in all conditions responded to a randomized mix of these items and the items from the Fairness scale.

## 3) Fairness Scale

This five-item measure ( $\alpha = .81$ ) was adapted from the Preference for Merit Principle scale (Davey, Bobocel, Hing, Zanna, 1999) and included such items as “In society, people who do a good job ought to rise to the top” and “The effort a person puts into something ought to be reflected in the size of the reward he or she receives.” All responses were recorded on a 7-point Likert scale with anchors at “1” as “strongly disagree” and “7” as “strongly agree.” All participants in all conditions responded to a randomized mix of these items and the items from the Social Justice scale.

## 4) Measures of Individuated/Categorical Thinking

Measuring an individuated or categorical cognitive perspective was accomplished using two short measures: the Kimchi-Palmer figures task and the Behavior Identification

Form (Kimchi & Palmer, 1982; Vallacher & Wegner, 1989). For the Kimchi-Palmer figure task, eight test items asked participants to view a target figure and then choose the most similar figure from two comparison figures ( $\alpha = .96$ ). The figures are composed of three to four small triangles and squares that are similar to the standard figure either in individual components or overall structural shape corresponding to local and global processing [see Appendix E for full task]. The Behavior Identification Form (BIF) included eight items in which a standard task was described in two ways: a higher-level purpose-related phrase or a lower-level process-related phrase [see Appendix F for full task]. Participants chose the phrase that best describes the standard task for them ( $\alpha = .62$ ). For both measures, the average of higher-level figures or tasks chosen out of eight items was calculated and served as two measures of individuated versus categorical thinking.

### **c. Procedure**

Participants were randomly assigned to one of three conditions: a control condition ( $n = 132$ ), a high social class condition ( $n = 88$ ), and a low social class condition ( $n = 82$ ). Participants first completed the rank ladder manipulation task for either high or low social class (the control condition did not complete any task but did see the description of the ladder) and then indicated their position on the ladder. Participants in all three conditions then completed the five items from the Social Justice scale and the five items from the Fairness scale in random order. An image of the SSS ladder remained on screen to strengthen the manipulation for the experimental conditions. Then, all participants completed the Kimchi-Palmer figure task and the BIF items. The two measures were presented in four blocks in which items were randomized: four Kimchi-Palmer figures,

four BIF items, the four remaining Kimchi-Palmer figures, and then the four remaining BIF items. Last, participants provided demographic information including age, race, gender, political identity, religiosity, income, occupation, and educational attainment level [see Appendix G for full demographic survey].

### **3. Results**

#### **a. Analytic Plan**

First, to examine the effects of the social class manipulation on SSS position, and social justice and fairness beliefs, a one-way analysis of variance was used to compare means across participants in the three conditions. In the absence of a successful manipulation, self-ratings of SSS position were used as a continuous measure in analyses examining its association with social justice and fairness beliefs. Second, multiple regression analyses examined the ability of average scores on the Kimchi-Palmer figures task and the Behavioral Identification Form, along with SSS position, to predict social justice and fairness beliefs. Third, post-hoc analyses included demographic variables, especially political identity, as covariates in an attempt to explore the effect of related (and possibly confounding) variables.

#### **b. Primary Analyses**

Means and standard deviations for positions on the Subjective Social Status (SSS) ladder and average scores on the Fairness and Social Justice scales are presented in Table 1. Overall, participants reported SSS positions close to the midpoint ( $M = 4.83$ ,  $SD = 1.8$ ), and support of Fairness ( $M = 5.47$ ,  $SD = 1.02$ ) was slightly higher than support of Social Justice ( $M = 5.14$ ,  $SD = 1.33$ ), which had slightly greater variance. The assumption of normality was tested using the Shapiro-Wilke statistic, which was

significant for both Fairness and Social Justice scores (Fairness S-W statistic = .962,  $df = 302$ ,  $p < .001$ ; Social Justice S-W statistic = .955,  $df = 302$ ,  $p < .001$ ). Although histograms and skewness statistics suggested negatively skewed data (Fairness skewness statistic = -.62,  $SE = .14$ ; Social Justice skewness statistic = -.60,  $SE = .14$ ), square transformations did not restore normality. Furthermore, several responses were extreme but could not be considered outliers and, with no statistical or practical motivation to do otherwise, were not removed from the sample. Therefore, where appropriate, some non-parametric tests are reported as well.

First, to test the effectiveness of the social class manipulation, a one-way analysis of variance compared participants assigned to the three conditions (control = 0, high social class manipulation = 1, and low social class manipulation = 2) to the measure of relative social class (MacArthur Scale of Subjective Social Status, SSS) asking participants to place themselves on a social class ladder with ten rungs from lowest to highest. The results of this analysis were found to be statistically non-significant ( $F(2,299) = .749$ ,  $p = .47$ ) indicating that the social class manipulation task was unsuccessful at influencing participants' report of their relative social class. In addition, a similar ANOVA was used to analyze the effect of condition on Fairness and Social Justice scale scores; the results of this analysis were also statistically non-significant for both scales (Fairness  $F(2, 299) = .501$ ,  $p = .74$ ; Social Justice  $F(2, 299) = .501$ ,  $p = .74$ ). See Tables 2 and 3 for detailed ANOVA results and means by condition. In addition, although the conditions differed in sample size, Levene's test indicated no violation of homogeneity of variance (SSS:  $F = .81$ ,  $p = .45$ ; Fairness  $F = 1.56$ ,  $p = .21$ , Social Justice  $F = 1.38$ ,  $p = .25$ ).

As the dependent variables violated assumptions of normality, a Kruskal-Wallis H test was also conducted, which also showed that there were no statistically significant differences in Fairness or Social Justice scores between the different conditions, Fairness  $\chi^2(2) = .882, p = .64$ ; Social Justice  $\chi^2(2) = .284, p = .87$ .

Thus, as the relative social class manipulation in each condition was unsuccessful at manipulating either SSS position or the scale items, further analyses used participants' reports of their SSS position on the ladder as a continuous measure of perceived relative social class.

A Pearson product-moment correlation explored the relationship between the ten-rung SSS ladder ( $M = 4.83, SD = 1.80$ ), average scores on the five-item Fairness scale ( $M = 5.47, SD = 1.02$ ) and average scores on the five-item Social Justice scale ( $M = 5.14, SD = 1.33$ ). This analysis was found to be statistically significant for SSS and Social Justice scores,  $r(302) = -.22, p < .001$ , indicating a moderate negative relationship. On the other hand, SSS was unrelated to Fairness scores ( $r(302) = -.03, p = .64$ ). Neither scores on the eight-item Kimchi-Palmer Figures nor the eight-item Behavior Identification Form were associated with scores on the Social Justice scale, Fairness scale, or the relative social class measure. See Table 4 for full correlation table. A Spearman's rank-order correlation was also run with similar results (SSS & Social Justice  $r_s(302) = -.24, p < .001$ ; SSS and Fairness  $r_s(302) = -.05, p = .38$ ).

Next, two sets of hierarchical multiple regressions were used to examine the efficacy of predicting Fairness scores with position on the SSS ladder and either scores on the Kimchi-Palmer figure task or the Behavioral Identification Form (BIF). The interaction between SSS and the cognitive measures was entered as a predictor in the

second step, allowing the first step to remain a test of the hypothesized main effects. However, neither of these regression equations were found to be significant (Kimchi-Palmer  $F(3, 298) = .419, p = .74$ ; BIF  $F(3, 298) = 1.226, p = .30$ ) indicating that relative social class, the cognitive measures, and their interaction were not significant predictors of responses to the Fairness scale. See Tables 5 and 6 for regression tables.

Two similar sets of hierarchical multiple regressions were used to examine the efficacy of predicting Social Justice scores with positions on the SSS ladder and either scores on the Kimchi-Palmer figure task or the Behavioral Identification Form (BIF). The interaction between SSS and the cognitive measures was entered as a predictor in the second step allowing the first step to remain a test of the main effects.

In the first analysis, it was found that SSS significantly predicted Social Justice ( $\beta = -.16, p = .008$ ), but the Kimchi-Palmer Figures did not ( $\beta = -.04, p = .94$ ) and the interaction was not significant ( $\beta = -.02, p = .86$ ). The results of the regression suggested a small effect: the full model explained only 5% of the variance ( $R^2_{\text{adjusted}} = .04, F(3,298) = 5.28, p = .001$ ). Similarly, in the second analysis, it was found that SSS significantly predicted Social Justice ( $\beta = -.162, p < .001$ ), but the BIF did not ( $\beta = .128, p = .68$ ) and the interaction was not significant ( $\beta = -.096, p = .56$ ). Moreover, the two predictors again independently explained only about 5% of the variance ( $R^2_{\text{adjusted}} = .04, F(3,298) = 5.28, p = .001$ ). See Tables 7 and 8 for regression tables. Plots of the residuals for both dependent variables appeared normally distributed so the results of these regressions indicated that relative social class predicted some variance in stated Social Justice beliefs, but the cognitive measures were not significant predictors.

### **c. Post-hoc Analyses**

Next, several demographic variables were explored as covariates in relation to the Fairness and Social Justice scales. Fairness was positively associated with political identity,  $r(302) = .20, p < .001$ . This variable was a composite measure averaging responses to two items related to the extent to which participants' identified with the labels "liberal/conservative" and "Democrat/Republican" on a scale from 1 = "Not at all" to 7 = "Very." Conversely, political identity was negatively associated with Social Justice beliefs,  $r(302) = -.48, p < .001$ . Social Justice was also negatively associated with objective household income range,  $r(302) = -.15, p = .009$ . Relative social class (SSS) was positively associated with age ( $r(301) = .12, p = .04$ ), income ( $r(302) = .53, p < .001$ ), conservative political identity ( $r(302) = .17, p = .004$ ), and education ( $F(7,294) = 7.46, p < .001$ ) across 8 increasingly greater education levels. No significant differences in the dependent variables were seen across gender, ethnicity, or state political identity (i.e. "red" state or "blue" state based on how the state had voted in the majority of the last eight presidential elections). In sum, of the seven demographic variables explored, three (political identity, household income range, and education) seemed most relevant and influential to the dependent variables of relative social class, Fairness, and Social Justice. See Table 4 for full correlations table.

Accordingly, first, the relationship between SSS position and social justice beliefs was subjected to a first-order partial correlation in order to explore the relationship controlling for the effects of education, income, and political identity. The first-order correlation was found to be statistically significant,  $r(297) = -.12, p = .045$ , indicating that a relationship between the two is slightly weakened but exists above and beyond the effects of education, income, and political identity. See Table 9 for correlations table.

Second, because Political Identity had the strongest pattern of association with all three variables, a one-way analysis of covariance compared participants assigned to the three conditions to the measure of relative social class, controlling for the covariate effects of political identity. This analysis was also found to be statistically non-significant ( $F(2,296) = .528, p = .59$ ) indicating that the social class manipulation task was unsuccessful at influencing participants' report of their relative social class even after controlling for the influence of political identity. Furthermore, a similar one-way analysis of covariance also indicated that neither Fairness scores nor Social Justice scores varied across conditions after controlling for political identity, (Fairness  $F(2, 294) = 1.51, p = .22$ ; Social Justice  $F(2, 294) = .965, p = .38$ ).

Third, hierarchical multiple regression analysis was used to test if SSS position, political identity, and the interaction between the two could significantly predict participants' endorsement of Social Justice. It was found that SSS significantly predicted Social Justice ( $\beta = -.12, p = .002$ ), as did political identity ( $\beta = -.34, p < .001$ ) but the interaction was not significant ( $\beta = .017, p = .41$ ), see Table 10 for details. The results of the regression also indicated that the model explained a moderate 25.5% of the variance ( $R^2_{\text{adjusted}} = .247, F(3,297) = 33.89, p < .001$ ).

As political identity and SSS were positively correlated ( $r(302) = .17, p = .004$ ), a mediation model was explored to attempt to represent a more accurate picture of how the two variables were related to Social Justice. Results of the analysis showed that the relationship between relative social class and social justice beliefs was only partially mediated by political identity. As Figure 1 demonstrates, the standardized regression coefficient between relative social class and political identity was statistically significant



( $\beta = .16$ ), as was the standardized regression coefficient between political identity and social justice beliefs ( $\beta = -.35$ ). The standardized indirect effect was  $-.08$ , CI  $[-.13, -.03]$ . The significance of this indirect effect was tested using bootstrapping procedures. Unstandardized indirect effects were computed for each of 10,000 bootstrapped samples, and the 95% confidence interval was computed by determining the indirect effects at the 2.5th and 97.5th percentiles. The bootstrapped unstandardized indirect effect was  $-.06$ , and the 95% confidence interval ranged from  $-.10$  to  $-.02$ . However, political identity as the mediator could only account for about a third of the total effect,  $P_M = .34$ .

Last, hierarchical multiple regression analysis was used to test if SSS position, political identity, and the interaction between the two could significantly predict participants' endorsement of Fairness. It was found that only (increasingly conservative) political identity was a significant predictor ( $\beta = .12$ ,  $p < .001$ ), see Table 11 for regression table. The results of the regression also indicated that the model only explained a small 4.6% of the variance ( $R^2_{\text{adjusted}} = .036$ ,  $F(3,297) = 4.73$ ,  $p = .003$ ).

## **B. STUDY 2**

### **1. Purpose**

As the next step towards systematically exploring the relationship between social class and beliefs about inequality, the second study also manipulated high and low social class between subjects and measured the effects on support for Social Justice and Fairness. However, Study 2 differed from Study 1 as it measured these beliefs using ratings of two sets of hypothetical real-world scenarios rather than scale items. Although items from scales provide a more direct way of measuring beliefs, real-world scenarios can be presented without politicized language that may confound the results. Moreover,

the scenarios were designed to present conflict between the two values allowing acceptability ratings to serve as a measure of the extent to which participants would uphold one value at the expense of the other.

The hypothesized outcomes were that participants in the high social class condition would report higher acceptability of the Fair but Unjust scenarios and lower acceptability of the Socially Just but Unfair scenarios compared to participants in the control and low social class conditions, and participants in the low social class condition would report lower acceptability of the Fair but Unjust scenarios and higher acceptability of the Socially Just but Unfair scenarios. Moreover, similar to Study 1, a majority of the variance in both dependent measures will be unexplained by the manipulation, but participants' individuated/categorical perspective will be a strong predictor.

## **2. Methods**

### **a. Participants**

Participants were again recruited online from a diverse and inclusive population through Amazon Mechanical Turk in January of 2017, and were screened to ensure they had not completed the prior study. Although 304 participants began the study, nine participants were excluded for incomplete responses, or if the time they took to complete the study was more than three standard deviations above the mean completion time ( $M = 6.8$  minutes). Ultimately, 296 participants were randomly assigned to one of three conditions. Participants provided informed consent and received monetary compensation for their participation of \$0.45, which reflects norms on the MTurk platform.

Participants ranged in age from 18 to 82 ( $M = 36.2$  years,  $SD = 11.69$ ). Fifty-five percent of the participants were female. The majority of participants described

themselves as White (76.7%), 7.1% Black, 5.4% Hispanic/Latino/a, 8.8% Asian/Pacific Islander, and 2% multiethnic.

All participants were located in the U.S. while participating in the study, and 94.3% were born in the U.S. (16 participants were born outside of the US). In terms of current location, 56% of participants were reporting from states that voted for a conservative presidential candidate in the majority of the last eight elections (“red” states); forty-four percent of participants were located in states that voted for a liberal presidential candidate in the majority of the last eight elections (“blue” states).

In terms of education, 17% of participants reported having a high school degree or GED, 30% associate’s degree or some college, 37% bachelor’s degree, 12.5% master’s, and 3.4% reported having completed advanced graduate work. Participants also reported household income ranges: median reported household income range was \$50,000 - \$59,999, similar to the national median (\$50,000 - \$59,999, Census 2015).

## **b. Materials**

### 1) Social Class Manipulation

All participants completed the same social class manipulation from Study 1 and again indicated their relative social class position on the ten-rung ladder representing Subjective Social Class.

### 2) Social Justice & Fairness Scenarios

Study 2 used acceptability ratings (from 1 to 7, 1 = “not at all acceptable” and 7 = “very acceptable”) of hypothetical scenarios as the dependent variable rather than the scale items. Each of the 10 scenarios pitted fairness and social justice values against each other such that they showcase instances where input-based deservingness rules create a

skewed distribution across groups (five scenarios  $\alpha = .81$ ), or instances where rules that support group membership-based equality violate individual deservingness (five scenarios  $\alpha = .74$ ). All of the scenarios were personally developed and tested for reliability by the researcher. They were originally inspired by Rob Reich's example of the drawbacks of a seemingly moral act (parents donating to their child's public school) (Reich, 2013).

An example of a Fairness scenario is:

“In a city neighborhood, parents donate a great deal of money to their children's public school. Other public schools in the city with lower income families get no additional funds from parents. How acceptable is it that parents donate a great deal of money to their children's school?”

An example of a Social Justice scenario is:

“Students at a major university are admitted based on a combination of factors, including academic achievement, past hardship, and group membership. Some students with better academic records are not admitted to the university. How acceptable is it that students at a major university are admitted based on a combination of factors?”

[See Appendix D for a list of all scenarios]

### 3) Measures of Individuated/Categorical Thinking

Participants completed the same items from both the Kimchi-Palmer figures task (eight items,  $\alpha = .96$ ) and the Behavioral Identification Form (eight items,  $\alpha = .70$ ) from Study 1.

### **c. Procedure**

Participants were randomly assigned to one of three conditions: a control condition (n = 123), a high social class condition (n = 82), and a low social class condition (n = 91). Participants first completed the rank ladder manipulation task for either high or low social class (the control condition did not complete any task but did see the description of the ladder) and then indicated their position on the ladder. Participants in all three conditions then provided acceptability ratings for all ten scenarios in random order. An image of the ladder remained on screen to strengthen the manipulation for the experimental conditions. Participants' responses were scored in two ways: a combined score of acceptability of all of the scenarios where the Fairness scores were reverse-scored, and a two-part score of acceptability for each type of scenario. However, the mixed scenario scoring had lower reliability ( $\alpha = .59$ ) and the two sets of scenarios appeared to be distributed differently so analyses used two separate scores for each set of scenarios. Last, all participants completed the Kimchi-Palmer figure task and the BIF items similar to Study 1, and provided demographic information including age, race, gender, political identity, religiosity, income, occupation, and educational attainment level [see Appendix G for full demographic survey].

## **3. Results**

### **a. Analytic Plan**

First, to examine the effects of the social class manipulation on SSS position, and ratings of social justice and fairness scenarios, a multivariate one-way analysis of variance was used to compare means across participants in the three conditions. In the absence of a successful manipulation, self-ratings of SSS position were used as a

continuous measure in analyses examining its association with scenario ratings. Second, multiple regression analyses examine the ability of average scores on the Kimchi-Palmer figures task and the Behavioral Identification Form, along with SSS position, to predict scenario ratings. Third, post-hoc analyses included demographic variables, especially political identity, as covariates in an attempt to explore the effect of related (and possibly confounding) variables.

**b. Primary Analyses**

Means and standard deviations for positions on the Subjective Social Status (SSS) ladder and average ratings of the Fair but Socially Unjust (FUJ) and Socially Just but Unfair (JUF) scenarios are presented in Table 12. Overall, participants reported SSS positions at the midpoint ( $M = 5.00$ ,  $SD = 1.7$ ), and support of Socially Just but Unfair scenarios ( $M = 3.79$ ,  $SD = 1.19$ ) was slightly higher than that of Fair but Unjust scenarios ( $M = 3.41$ ,  $SD = 1.31$ ), which had slightly greater variance. The assumption of normality was tested using the Shapiro-Wilke statistic, which was significant for both FUJ and JUF ratings (Fairness S-W statistic = .974,  $df = 296$ ,  $p < .001$ ; Social Justice S-W statistic = .989,  $df = 296$ ,  $p = .02$ ). However, histograms and skewness statistics suggest that the data does not depart egregiously from normality (FUJ skewness statistic =  $-.52$ ,  $SE = .14$ ; JUF skewness statistic =  $.04$ ,  $SE = .14$ ), and square transformations do not result in great changes in the distributions.

First, to test the effectiveness of the social class manipulation, a one-way analysis of variance compared participants assigned to the three conditions (control = 0, high social class manipulation = 1, and low social class manipulation = 2) to the measure of relative social class (MacArthur Scale of Subjective Social Status, SSS) asking

participants to place themselves on a social class ladder with ten rungs from lowest to highest. The results of this analysis were found to be statistically non-significant ( $F(2,293) = .813, p = .45$ ) indicating that the social class manipulation task was again unsuccessful at influencing participants' report of their relative social class. In addition, as the scenarios were correlated ( $r(296) = .19, p = .001$ ) and both types included elements of both Fairness and Social Justice, a multivariate one-way analysis of variance (MANOVA) was used to analyze the effect of condition on ratings of both sets of scenarios. The results of this analysis were also statistically non-significant overall ( $F(4, 586) = 1.873, p = .11$ ). See Tables 13 and 14 for detailed ANOVA tables. In addition, although the conditions differed in sample size, Levene's test indicated no violation of homogeneity of variance (SSS:  $F = .09, p = .91$ ; Fairness  $F = .47, p = .63$ , Social Justice  $F = .31, p = .74$ ).

Thus, as the relative social class manipulation in each condition was largely unsuccessful at manipulating the SSS position and ratings of most scenarios, further analyses used participants' reports of their SSS position on the ladder as a continuous measure of perceived relative social class.

A Pearson product-moment correlation explored the relationship between the ten-rung SSS ladder, average ratings of the five Just but Unfair scenarios, and average ratings of the five Fair but Unjust scenarios. This analysis was found to be statistically significant for SSS and JUF scenarios,  $r(296) = -.12, p = .04$ , indicating a small negative relationship. SSS was positively related to FUJ scenarios ( $r(296) = .19, p = .001$ ). Scores on the eight-item Kimchi-Palmer Figures task were not correlated with any other dependent variables, but the eight-item Behavior Identification Form was negatively

associated with ratings of Fair but Unjust scenarios ( $r(296) = -.14, p = .014$ ). See Table 15 for full correlations table.

Next, two sets of hierarchical multiple regressions were used to examine the efficacy of predicting Socially Just but Unfair (JUF) ratings with position on the SSS ladder and either scores on the Kimchi-Palmer figure task or the Behavioral Identification Form (BIF). The interaction between SSS and the cognitive measures was entered as a predictor in the second step to allow the first step to remain a model with only main effects. In the first regression analysis, it was found that SSS was a marginally significant predictor of JUF ratings ( $\beta = -.08, p = .05$ ), but the Kimchi-Palmer Figures task was not significant ( $\beta = -.12, p = .43$ ) and the interaction was not significant ( $\beta = -.05, p = .63$ ). The results of the regression suggested a very small effect: the full model explained only 1.7% of the variance ( $R^2_{\text{adjusted}} = .007, F(3,292) = 1.71, p = .17$ ). Similarly, in the second regression analysis, it was found that SSS significantly predicted Just but Unfair scenarios ( $\beta = -.08, p = .048$ ), but the BIF did not ( $\beta = -.36, p = .18$ ) and the interaction was not significant ( $\beta = -.15, p = .35$ ). Again, SSS and the BIF accounted for very little of the variance in JUF ratings ( $R^2_{\text{adjusted}} = .013, F(3,292) = 2.34, p = .07$ ). See Tables 16 and 17 for regression tables.

Two similar sets of hierarchical multiple regressions were used to examine the efficacy of predicting Fair but Socially Unjust scores with positions on the SSS ladder and either scores on the Kimchi-Palmer task or the Behavioral Identification Form (BIF). The interaction between SSS and the cognitive measures was entered as a predictor in the second step.



It was found that SSS significantly predicted FUJ ratings ( $\beta = .14, p = .001$ ), but the Kimchi-Palmer Figures did not ( $\beta = -.078, p = .65$ ) and the interaction was not significant ( $\beta = -.06, p = .55$ ). The results of the regression suggested a small effect: the two predictors independently explained only 3.8% of the variance ( $R^2_{\text{adjusted}} = .028, F(3,292) = 3.85, p = .01$ ).

Interestingly, in the models including the BIF, it was found that SSS again significantly predicted FUJ ratings ( $\beta = .15, p = .001$ ), but the BIF did as well ( $\beta = -.78, p = .007$ ). The interaction was not significant ( $\beta = -.18, p = .30$ ), indicating that the main effects of relative social class and construal level as measured by the BIF were statistically significant predictors of acceptability of Fair but Socially Unjust scenarios. The regression equation for predicting acceptability of Fair but Unjust scenarios from relative social class and construal level as measured by the BIF was found to be  $Y = .15x_1 - .78x_2 + 3.07$ . Overall, however, this model only accounted for 6.4% of the variability ( $R^2_{\text{adjusted}} = .054, F(3,292) = 3.85, p = .01$ ), suggesting that an exploration of other related variables is warranted. See Tables 18 and 19 for regression tables.

### **c. Post-hoc Analyses**

Next, several demographic variables were explored as covariates in relation to the ratings of scenarios. Acceptability of Socially Just but Unfair scenarios was negatively associated with political identity,  $r(296) = -.27, p < .001$ . The "political identity" variable was a composite measure averaging responses to two items related to the extent to which participants' identified with the labels "liberal/conservative" and "Democrat/Republican" on a scale from 1 = "Not at all" to 7 = "Very." Conversely, political identity was positively associated with acceptability of Fair but Socially Unjust scenarios,  $r(296) =$

.42,  $p < .001$ . FUJ scenarios were also positively associated with objective household income range,  $r(296) = .20$ ,  $p < .001$ , and differed across gender with males slightly more approving (mean difference = .45,  $t(292) = 2.95$ ,  $p = .003$ ). As can be expected, relative social class (SSS) was positively associated with income ( $r(296) = .56$ ,  $p < .001$ ), conservative political identity ( $r(302) = .13$ ,  $p = .02$ ), and education ( $F(7,288) = 3.14$ ,  $p = .003$ ) across 8 increasingly greater education levels. See Table 15 for correlations table. In sum, of the seven demographic variables explored, three (political identity, household income range, and education) again seemed most relevant and influential to the dependent variables of relative social class, Fairness, and Social Justice.

The relationship between relative social class and acceptability ratings of the two sets of scenarios was subjected to two first-order partial correlations in order to explore the relationships controlling for the effects of education and political identity. When education level is controlled for, the first-order correlations between relative social class and both sets of scenarios remain statistically significant (JUF  $r(293) = -.13$ ,  $p = .025$ ; FUJ  $r(293) = .21$ ,  $p < .001$ ). However, when political identity is controlled for, only the first-order correlation between relative social class and Fair but Socially Unjust scenarios remains statistically significant (JUF  $r(293) = -.09$ ,  $p = .13$ ; FUJ  $r(293) = .15$ ,  $p = .01$ ; see Table 20).

Second, because political identity had the strongest pattern of association with all three variables, one-way analysis of covariance (ANCOVA) compared participants assigned to the three conditions on the measure of relative social class and a MANCOVA compared them on acceptability of both sets of scenarios, while controlling for the effects of political identity. The ANCOVA on condition and SSS position was not found to be

statistically significant ( $F(2,290) = .84, p = .43$ ), indicating that the social class manipulation task was not successful at influencing relative social class, even after controlling for the influence of political identity. The MANCOVA was, however, marginally significant for univariate tests of condition on both sets of scenarios (JUF  $F(2,290) = 2.42, p = .09$ ; FUJ  $F(2,290) = 2.47, p = .09$ ). See Tables 21 and 22 for details.

Third, a hierarchical multiple regression analysis was used to test if SSS and political identity could significantly predict participants' acceptability ratings of Socially Just but Unfair scenarios. Their interaction was entered in the second step. It was found that political identity significantly predicted JUF ( $\beta = -.19, p < .001$ ), but SSS did not ( $\beta = -.06, p = .13$ ), see Table 23 for details. The interaction was not significant ( $\beta = .004, p = .89$ ). The results of the regression also indicated that this model explained only 8.2% of the variance ( $R^2_{\text{adjusted}} = .07, F(3,292) = 8.66, p < .001$ ).

Similarly, a hierarchical multiple regression analysis was used to test if SSS, political identity, and the BIF could significantly predict participants' acceptability ratings of Fair but Unjust scenarios. Their two-way interactions were entered in the second step. Gender and the dummy-coded conditions were also included as main effects. It was found that SSS significantly predicted FUJ ( $\beta = .11, p = .009$ ), as did political identity ( $\beta = .31, p < .001$ ), and the BIF ( $\beta = -.74, p = .004$ ). Moreover, gender ( $\beta = -.44, p = .001$ ) and only the low social class manipulation condition (compared to the control) were also significant predictors ( $\beta = -.39, p = .015$ ). However, the interactions were not significant (see Table 24 for details). The results of the regression also indicated that full model explained a moderate 26.3% of the variance ( $R^2_{\text{adjusted}} = .24, F(10,283) = 10.08, p < .001$ ).

As political identity and SSS were positively correlated ( $r(296) = .13, p = .02$ ), a mediation model was explored to attempt to represent a more accurate picture of how the two variables were related to ratings of Fair but Unjust scenarios. Results of the analysis showed that the relationship between relative social class and social justice beliefs was only partially mediated by political identity. As Figure 2 demonstrates, the standardized regression coefficient between relative social class and political identity was statistically significant ( $\beta = .13, p = .02$ ), as was the standardized regression coefficient between political identity and social justice beliefs ( $\beta = .32, p < .001$ ). The standardized indirect effect was  $-.05, CI [.01, .10]$ . The significance of this indirect effect was tested using bootstrapping procedures. The bootstrapped unstandardized indirect effect was  $.04$ , and the 95% confidence interval ranged from  $.008$  to  $.08$ . However, political identity as the mediator could only account for about a third of the total effect,  $P_M = .28$ .

#### **4. Discussion of Studies 1 & 2**

In Study 1, relative social class manipulations were unsuccessful at influencing participants' position on the Subjective Social Status ladder scale measure and the Fairness and Social Justice scales, even when controlling for the effects of participant political identity. In Study 2, the manipulation was again unsuccessful at influencing both participants' SSS position and average ratings of scenarios presenting conflict between fairness and social justice. Although the task has been used successfully in past research and was replicated in identical detail in these studies, it may be that for the purposes of these studies, writing about interactions with people at the top or bottom of the SSS ladder is not a sufficiently influential activity to replace participants' prior perceptions of their social class.

However, relative social class, as measured by SSS position, was a significant negative predictor of endorsement of stated social justice principles but not fairness principles in Study 1, which supported the hypotheses indirectly. In Study 2, this pattern was expanded upon in that SSS did not significantly predict acceptability of scenarios where social justice was upheld, but it did negatively predict acceptability of scenarios where social justice was violated. That is, the lower in social class people consider themselves overall, the more supportive of Social Justice they are, and they are especially more sensitive to violations of social justice. Furthermore, although conservative political identity and relative social class were positively associated, only about a third of this effect of social class could be explained by political identity. Moreover, the effects of relative social class were associated with Social Justice beliefs even beyond the effects of related demographic variables such as political identity, education, and household income range.

Politics was, however, a strong independent predictor of both the scale items and the scenarios in both studies. Interestingly, conservative political identity was a stronger negative predictor of the scale items ( $R^2 = 25\%$ ) than of the Socially Just but Unfair scenario ratings ( $R^2 = 8\%$ ). Perhaps political identity is more relevant to stated attitudes than to upholding Social Justice when in conflict with Fairness in real-world scenarios.

In terms of cognition, the Kimchi-Palmer local-global task was not able to add to the understanding of social justice and fairness. The Behavior Identification Form measuring high and low construal level did negatively predict the acceptability of Fair but Socially Unjust scenarios. Essentially, participants who were thinking at a higher, more abstract level were significantly more likely to object to the violation of social

justice. The two cognitive measures are intended to measure related but separate concepts: local/global thinking and higher/lower construal levels. It may be that, for the purposes of this research, the BIF is a more relevant measure of cognition.

Lastly, this objection to violations of social justice was predicted by several variables independently of each other. These included higher level thinking from the BIF, a more liberal political identity, lower relative social class, being asked to write about an interaction with someone higher in social class (condition 2), and being female. The effect of the low social class condition is not, however, mediated by any change in SSS position. Therefore, it remains to be understood what effect this manipulation is actually having: is the experience of writing about someone who is worse off than you generating an emotional reaction such as empathy or general negative affect?

Interestingly, the gender effect, although small, is robust - but has not been seen in previous studies and was not mediated by politics, nor was it associated with other demographic variables. This result may also suggest that future research should more closely examine the role of two other concepts that are also affected by gender: empathy and interdependence (Varnum, Blaise, Hampton & Brewer, 2015).

Overall, Studies 1 and 2 suggest that social class has a unique but small effect on the extent to which people believe in and support social justice - but not on thinking about fairness, which remains a fairly universal value. Abstract thinking appears to play an independent role in objecting to the violation of social justice principles, but not fairness principles.

**CHAPTER 4**  
**STUDIES 3 & 4**

**A. STUDY 3**

**1. Purpose**

In Studies 1 and 2, the effects of high and low social class on support for Social Justice and Fairness were explored with cognitive perspective not manipulated, but measured. In Study 3, the effects of manipulated individuated or categorical cognitive perspective on support for Social Justice and Fairness were examined, and social class was measured. In this way, Study 3 aimed to test the individuated/categorical cognitive perspective as a predictor of support for Social Justice (and Fairness). Study 3 asked participants to use a concrete/individuated perspective or an abstract/categorical perspective, and then measured their attitudes using the Social Justice and Fairness scales. Study 4 was different only in that the dependent measure was the ten scenarios used in Study 2. The hypothesized outcome in Study 3 was that compared to the control group, participants primed with a concrete/individuated perspective would have lower scores on the Social Justice measures but not Fairness, and participants primed with an abstract/categorical perspective will show higher support of Social Justice but not Fairness.

**2. Methods**

**a. Participants**

Participants were again recruited online from a diverse and inclusive population through Amazon Mechanical Turk in January of 2017, and were screened to ensure they had not completed the prior studies. Although 310 participants began the study, 15

participants were excluded for incomplete responses, or if the time they took to complete the study was more than three standard deviations above the mean completion time ( $M = 5.3$  minutes). Ultimately, 295 participants were randomly assigned to one of three conditions. Participants provided informed consent and received monetary compensation for their participation of \$0.35, which reflects norms on the MTurk platform.

Participants ranged in age from 18 to 74 ( $M = 39.2$  years,  $SD = 13.1$ ). Approximately 50.5% of the participants were female. The majority of participants described themselves as White (75.9%), 9% Black, 3.8% Hispanic/Latino/a, 9% Asian/Pacific Islander, and 2.4% multiethnic.

All participants were located in the US while participating in the study, and 95% were born in the US (16 participants were born outside of the US). In terms of current location, 53% of participants were reporting from states that voted for a conservative presidential candidate in the majority of the last eight elections (“red” states); forty-seven percent of participants were located in states that voted for a liberal presidential candidate in the majority of the last eight elections (“blue” states).

In terms of education, 16.5% of participants reported having a high school degree or GED, 31.6% associate’s degree or some college, 35.7% bachelor’s degree, 11% master’s degree, and 5.2% reported having completed advanced graduate work. Participants also reported household income ranges: median reported household income range was \$50,000 - \$59,999, similar to the national median (\$50,000 - \$59,999, Census 2015).



## **b. Materials**

### 1) Individuated/Categorical Perspective Manipulation

Participants in experimental conditions completed one of the versions of the Construal Level priming task drawn from Fujita, Trope, Liberman, & Levin-Sagi (2006). This manipulation proved successful in a past study at affecting support for Social Justice (described above), although that study did not incorporate social class or the necessary analyses and, therefore, will be extended here. In this task, the instructions to the participant determine whether the task primes a concrete construal or an abstract construal level. The “abstract” directions are to list the larger categories that define each of 20 distinct items. The “concrete” directions were to list specific examples of the same 20 items. Participants in the control condition were simply asked to read the list of 20 items [see Appendix H for full task stimuli and directions].

### 2) Social Justice and Fairness Measures

Unique insights were provided by the measures and scenarios, so both dependent measures were utilized in Studies 3 and 4. For Study 3, participants completed the same five-item Social Justice scale ( $\alpha = .91$ ) and the five-item Fairness scale ( $\alpha = .82$ ) in random order as used in Study 1.

### 3) Social Class Measures

Participants saw the MacArthur Scale of Subjective Social Status used in the previous two studies. A description of the ladder and its ten rungs as representing society was provided and participants were asked to indicate which of the ten rungs might best represent their social class position in US society from 1 - “Worst off” to 10 - “Best off.”

### 4) Measures of Individuated/Categorical Thinking

Participants completed the first four items from both the Kimchi-Palmer figures task (four items,  $\alpha = .92$ ) and the Behavioral Identification Form (four items,  $\alpha = .55$ ) from the previous studies.

**c. Procedure**

Participants were randomly assigned to one of three conditions in (3x1): concrete/individuated perspective (n = 86), abstract/categorical perspective (n = 82), and a control condition (n = 127). Participants first completed the cognitive perspective manipulation task (the control condition did not complete any task but saw the list of words). Participants in all three conditions then completed the Social Justice/Fairness scale items in random order. Then, participants completed the four-item Kimchi-Palmer task, then the four-item BIF. Lastly, all participants provided demographic information including the SSS ladder measure, age, race, gender, political identity, religiosity, income, occupation, and educational attainment level [see Appendix G for full demographic survey].

**3. Results**

**a. Analytic Plan**

First, to examine the effects of the construal level task on social justice and fairness beliefs, a one-way analysis of variance was used to compare means across participants in the three conditions. Second, multiple regression analyses examined the ability of average scores on the Kimchi-Palmer figures task and the Behavioral Identification Form, along with measured SSS position, to predict social justice and fairness beliefs. Third, post-hoc analyses included demographic variables, especially

political identity, as covariates in an attempt to explore the effect of related (and possibly confounding) variables.

**b. Primary Analyses**

Means and standard deviations for positions on the Subjective Social Status (SSS) ladder and average scores on the Fairness and Social Justice scales are presented in Table 25. Overall, participants reported SSS positions close to the midpoint ( $M = 5.05$ ,  $SD = 1.82$ ), and support of Fairness ( $M = 5.22$ ,  $SD = 1.00$ ) was slightly higher than support of Social Justice ( $M = 5.08$ ,  $SD = 1.37$ ), which had slightly greater variance. The assumption of normality was tested using the Shapiro-Wilke statistic, which was significant for both Fairness and Social Justice scores (Fairness S-W statistic = .975,  $df = 295$ ,  $p < .001$ ; Social Justice S-W statistic = .959,  $df = 295$ ,  $p < .001$ ). Although histograms and skewness statistics suggested negatively skewed data (Fairness skewness statistic =  $-.40$   $SE = .14$ ; Social Justice skewness statistic =  $-.39$ ,  $SE = .14$ ), square transformations did not restore normality. Furthermore, several dozen responses, although extreme, could not be considered outliers and, with no statistical or practical motivation to do otherwise, were not removed from the sample. Therefore, where appropriate, some non-parametric tests are reported as well.

First, to test the effectiveness of the construal level manipulation, a one-way analysis of variance compared participants assigned to the three conditions (control = 0, concrete construal level manipulation = 1, and abstract construal level manipulation = 2) to the Fairness and Social Justice scale scores. The results of this analysis were found to be statistically non-significant (Fairness  $F(2,292) = 1.79$ ,  $p = .17$ ; Social Justice  $F(2,292) = .76$ ,  $p = .47$ ) indicating that the construal level manipulation task was unsuccessful at

influencing participants' endorsement of the Fairness and Social Justice scales. See Table 26 for detailed ANOVA results. In addition, although the conditions differed in sample size, Levene's test indicated no violation of homogeneity of variance (Fairness Levene's Statistic = 1.16,  $p = .32$ ; Social Justice Levene's Statistic = .82,  $p = .44$ ).

As the data violated assumptions of normality, two (nonparametric) Kruskal-Wallis H tests were also conducted, which again showed that there were no statistically significant differences in Fairness or Social Justice scores between the different conditions, Fairness  $\chi^2(2) = 2.91$ ,  $p = .23$ ; Social Justice  $\chi^2(2) = .199$ ,  $p = .37$ .

Next, a (nonparametric) Spearman's rank-order correlation explored the relationship between the ten-rung SSS, which was gathered at the end with demographic information, and average scores on the five-item Fairness and Social Justice scales with different results although in the expected directions. With this analysis, SSS and Social Justice were significantly negatively correlated ( $r_s(295) = -.12$ ,  $p = .04$ ) while Fairness was not significantly correlated with SSS,  $r_s(295) = .09$ ,  $p = .13$ ), see Table 28 for full correlation table.

As a baseline measure, the first four items from the BIF and the Kimchi-Palmer figures task were also presented to participants at the end of the study. Possibly because they were presented at the end of study when the effects of the priming task may have worn off, neither of these measures differed by condition ( $F_{KP}(2,292) = .13$ ,  $p = .88$ ;  $F_{BIF}(2,292) = .91$ ,  $p = .41$ ). Similar to Studies 1 and 2, these were used along with SSS position to attempt to predict Fairness and Social Justice scores. Specifically, as the previous studies suggested that the BIF is most relevant to the variables studied, the average score of this and the ten-rung SSS measure were entered into a hierarchical

multiple regression with their interaction entered in the second step. The residuals for both of these regressions appeared normally distributed. It was found that neither SSS, the BIF, nor their interaction were significant predictors of Social Justice scores ( $R^2 = .01$ ,  $F(3,291) = 1.25$ ,  $p = .29$ ), see Table 29 for regression table. However, the regression analysis did suggest that Fairness scores can be predicted by SSS position ( $\beta = .07$ ,  $p = .041$ ) but not by the BIF ( $\beta = .20$ ,  $p = .30$ ) or their interaction ( $\beta = -.10$ ,  $p = .35$ ), see Table 30 for regression table. The model could only predict about 2% of the variance in Fairness scores ( $R^2_{\text{adjusted}} = .011$ ,  $F(3,291) = 2.13$ ,  $p = .10$ ).

### c. Post-hoc Analyses

Several demographic variables were then explored in relation to the Fairness and Social Justice scales using nonparametric Spearman's rank correlations (see Table 28). Fairness was positively associated with political identity,  $r_s(295) = .23$ ,  $p < .001$ . This variable was a composite measure averaging responses to two items related to the extent to which participants' identified with the labels "liberal/conservative" and "Democrat/Republican" on a scale from 1 = "Not at all" to 7 = "Very." Conversely, political identity was negatively associated with Social Justice beliefs,  $r_s(295) = -.55$ ,  $p < .001$ . Social Justice was also negatively associated with objective household income range,  $r_s(295) = -.15$ ,  $p = .013$ . As hypothesized, relative Social Class (SSS) was positively associated with income ( $r_s(295) = .62$ ,  $p < .001$ ), conservative political identity ( $r_s(295) = .17$ ,  $p = .003$ ), and education ( $F(7,283) = 8.51$ ,  $p < .01$ ) across 8 increasingly greater education levels. No significant differences in the dependent variables was seen across gender, ethnicity, or state political identity (i.e. "red" state or "blue" state based on how the state had voted in the majority of the last eight presidential elections). In sum, of

the seven demographic variables explored, political identity seemed most relevant and influential to the dependent variables of Fairness, and Social Justice.

First, a one-way analysis of covariance compared participants assigned to the three conditions to the Fairness and Social Justice scores, controlling for the covariate effects of political identity. This analysis was found to be statistically non-significant for the effect of condition on Fairness scores ( $F(2,289) = .618, p = .59$ ) indicating that the construal level task was unsuccessful at influencing participants' support for Fairness even after controlling for the influence of political identity. However, this analysis was found to be statistically significant for the effect of the interaction between condition and political identity ( $F(2,289) = 6.08, p = .003$ ) indicating a differential relationship between political identity and Social Justice scores across manipulated conditions (see Table 31 for details). The interaction was probed by testing the conditional effects of condition at three levels of political identity: one standard deviation below the mean, at the mean, and one standard above the mean. This analysis was significant only for the abstract condition compared to the control condition; the concrete condition did not differ from the control condition. At one standard deviation below the mean of political identity (more liberal/Democrat), support for social justice was higher in the abstract condition ( $M_{\text{conditional}} = 6.13$ ) than the control condition ( $M_{\text{conditional}} = 5.59$ ). At the mean, there were no differences between conditions ( $F(2,289) = .26, p = .77$ ). At one standard deviation above the mean of political identity (more conservative/Republican), support for social justice was lower in the abstract condition ( $M_{\text{conditional}} = 3.89$ ) than the control condition ( $M_{\text{conditional}} = 4.47$ ).

To further investigate the specifics of this interaction, hierarchical multiple regression analysis was used to test if the two manipulation conditions, SSS, political identity, and their two-way interactions could significantly predict participants' endorsement of Social Justice. In this model, it was found that SSS did not significantly predict Social Justice ( $\beta = -.14, p = .09$ ), although political identity did ( $\beta = -.56, p < .001$ ), and the interaction between SSS and political identity was a marginally significant predictor ( $\beta = .04, p = .06$ ). In addition, the dummy-coded abstract construal level condition was a significant predictor of Social Justice scores compared to the control condition ( $\beta = 1.02, p = .005$ ) although the concrete condition was not ( $\beta = .35, p = .35$ ). Lastly, the interaction between the abstract condition and political identity was significant ( $\beta = 2.98, p = .002$ ) but the interaction between the concrete condition and political identity was not ( $\beta = -.07, p = .50$ ). The results of the regression indicated that the model explained a moderate 33.4% of the variance ( $R^2_{\text{adjusted}} = .318, F(7,287) = 20.56, p < .001$ ). See Table 32 for details and Figure 3 for regression plots.

In a similar analysis, hierarchical multiple regression analysis was used to test if SSS, political identity and the interaction between the two could significantly predict participants' endorsement of Fairness. In this model, it was found that SSS did not significantly predict Fairness ( $\beta = -.14, p = .09$ ), although political identity did ( $\beta = -.56, p < .001$ ), and the interaction between SSS and political identity was a marginally significant predictor ( $\beta = .04, p = .06$ ). The results of the regression indicated that the model explained a moderate 33.4% of the variance ( $R^2_{\text{adjusted}} = .318, F(7,287) = 20.56, p < .001$ ).

## **B. STUDY 4**

### **1. Purpose**

In Study 4, individuated or categorical cognitive perspective was manipulated and the effects were measured on acceptability ratings of scenarios presenting conflict between social justice and fairness; social class was then measured using the ten-rung SSS ladder. In this way, Study 4 aimed to test the individuated/categorical cognitive perspective as a predictor of support for violations of social justice and fairness. Study 4 asked participants to use a concrete/individuated perspective or an abstract/categorical perspective, and then measured their attitudes using the scenarios from Study 2. The hypothesized outcome in Study 4 was that compared to the control and concrete/individuated group, participants primed with an abstract/categorical perspective would indicate lower acceptability of the Fair but Socially Unjust scenarios, and higher acceptability of Socially Just but Unfair scenarios.

### **2. Methods**

#### **a. Participants**

Participants were again recruited online from a diverse and inclusive population through Amazon Mechanical Turk in January of 2017, and were screened to ensure they had not completed the prior studies. Although 302 participants began the study, 21 participants were excluded for incomplete responses, or if the time they took to complete the study was more than three standard deviations above the mean completion time ( $M = 6.9$ ). Ultimately, 281 participants were randomly assigned to one of three conditions. Participants provided informed consent and received monetary compensation for their participation of \$0.45, which reflects norms on the MTurk platform.



Participants ranged in age from 20 to 84 ( $M = 39$  years,  $SD = 13.2$ ).

Approximately 50.9% of the participants were female. The majority of participants described themselves as White (79.7%), 5% Black, 5.3% Hispanic/Latino/a, 7.8% Asian/Pacific Islander, and 2.1% multiethnic.

All participants were located in the U.S. while participating in the study, and 96.4% were born in the U.S. (11 participants were born outside of the US). In terms of current location, 51% of participants were reporting from states that voted for a conservative presidential candidate in the majority of the last eight elections (“red” states); forty-nine percent of participants were located in states that voted for a liberal presidential candidate in the majority of the last eight elections (“blue” states).

In terms of education, 18.9% of participants reported having a high school degree or GED, 29.9% associate’s degree or some college, 33.8% bachelor’s degree, 14.6% master’s degree, and 2.8% reported having completed advanced graduate work. Participants also reported household income ranges: median reported household income range was \$50,000 - \$59,999, similar to the national median (\$50,000 - \$59,999, Census 2015).

## **b. Materials**

### 1) Individuated/Categorical Perspective Manipulation

Participants in experimental conditions completed one of the versions of the Construal Level priming task drawn from Fujita, Trope, Liberman, & Levin-Sagi (2006) as in Study 3 [see Appendix H for full task stimuli and directions].

## 2) Social Justice and Fairness Scenarios

Study 4 used acceptability ratings (from 1 to 7, 1 = “not at all acceptable” and 7 = “very acceptable”) of the same hypothetical scenarios from Study 2 as the dependent variable rather than the scale items. Each of the 10 scenarios pitted fairness and social justice values against each other such that they showcase instances where input-based deservingness rules create a skewed distribution across groups (five scenarios,  $\alpha = .78$ ), or instances where rules that support group membership-based equality violate individual deservingness (five scenarios,  $\alpha = .72$ ). See Appendix D for full list of scenarios. Analyses utilized these scenarios as two separate sets as their mixed and reverse-coded reliability was lower (ten scenarios,  $\alpha = .59$ ).

## 3) Social Class Measure

Participants saw the MacArthur Scale of Subjective Social Status used in the previous two studies. A description of the ladder and its ten rungs as representing society was provided and participants were asked to indicate which of the ten rungs might best represent their social class position in US society from 1 - “Worst off” to 10 - “Best off.”

## 4) Measures of Individuated/Categorical Thinking

Participants completed the Behavioral Identification Form (eight items,  $\alpha = .68$ ) from the previous studies. The Kimchi-Palmer task was omitted as no previous analyses suggested it was a relevant measure to the variables studied.

### **c. Procedure**

Participants were randomly assigned to one of three conditions in (3x1): concrete/individuated perspective (n = 101), abstract/categorical perspective (n = 62), and a control condition (n = 118). Participants first completed the cognitive perspective

manipulation task (the control condition did not complete any task but saw the list of words). Participants in all three conditions then rated all ten scenarios in random order. Then, participants completed the eight-item BIF. Lastly, all participants provided demographic information including the SSS ladder measure, age, race, gender, political identity, religiosity, income, occupation, and educational attainment level [see Appendix G for full demographic survey].

### **3. Results**

#### **a. Analytic Plan**

First, to examine the effects of the construal level task on the scenario ratings, a multivariate one-way analysis of variance was used to compare means across participants in the three conditions. Second, multiple regression analyses examined the ability of average scores on the Behavioral Identification Form, along with SSS position, to predict scenario ratings. Third, post-hoc analyses included demographic variables, especially political identity, as covariates in an attempt to explore the effect of related (and possibly confounding) variables.

#### **b. Primary Analyses**

Means and standard deviations for positions on the Subjective Social Status (SSS) ladder and average scores on the Fair but Socially Unjust (FUJ) and Socially Just but Unfair (JUF) scenarios are presented in Table 34. Overall, participants reported SSS positions close to the midpoint ( $M = 4.98$ ,  $SD = 1.65$ ), and average acceptability ratings of Fair but Socially Unjust scenarios ( $M = 3.64$ ,  $SD = 1.27$ ) was slightly lower than support of Socially Just but Unfair scenarios ( $M = 3.73$ ,  $SD = 1.12$ ). The assumption of normality was tested using the Shapiro-Wilke statistic, which was significant for both

Fairness and Social Justice scores (Fairness S-W statistic = .988,  $df = 281$ ,  $p = .017$ ; Social Justice S-W statistic = .988,  $df = 281$ ,  $p = .024$ ). However, histograms of the data don't suggest major departures from normality, and square root transformations of the positively skewed data did not restore normality. Furthermore, several dozen responses, although extreme, could not be considered outliers and, with no statistical or practical motivation to do otherwise, were not removed from the sample.

First, to test the effectiveness of the construal level manipulation, a multivariate one-way analysis of variance compared participants assigned to the three conditions (control = 0, concrete construal level manipulation = 1, and abstract construal level manipulation = 2) to both sets of scenarios. A MANOVA was used over an ANOVA because the scenarios were presented together, positively correlated ( $r(281) = .15$ ,  $p = .01$ ), and included elements of both Fairness and Social Justice principles in each scenario. Additionally, the Box's M value of 3.80 was associated with a  $p$  value of .709, which suggests that the covariance matrices between the groups can be assumed equal for the purposes of the MANOVA even though the groups had different sample sizes. The results of this analysis were found to be statistically significant overall,  $F(4,556) = 2.41$ ,  $p = .048$ . Specifically, there were no differences between conditions for Fair but Unjust scenarios (FUJ),  $F(2,278) = .08$ ,  $p = .45$  but there were differences between conditions for Socially Just but Unfair scenarios (JUF),  $F(2,278) = 3.41$ ,  $p = .034$  indicating that the construal level manipulation task was successful at influencing participants' acceptability ratings of Socially Just but Unfair scenarios. This effect was small, however ( $\eta^2 = .02$ ). See Table 35 for detailed MANOVA results. A Tukey post hoc test revealed that the average acceptability of JUF scenarios was statistically significantly lower in the abstract

construal level condition ( $M = 3.40$ ) than the concrete construal level condition ( $M = 3.85$ ,  $p = .038$ ). There was no statistically significant difference between the abstract and control conditions ( $p = .067$ , marginal) or the concrete and control conditions ( $p = .94$ ), see Figure 4 for bar chart. In addition, this effect of the abstract construal level condition on JUF ratings was not mediated by scores on the BIF, indirect effect omnibus  $\beta < .001$ , CI  $[-.008, .002]$ .

Next, a Pearson product-moment correlation explored the relationship between the ten-rung SSS, which was gathered at the end with demographic information, and average acceptability ratings of both FUJ and JUF scenarios. This analysis was found to be statistically significant for SSS and FUJ scenarios,  $r(281) = .193$ ,  $p = .001$ , indicating a moderate positive relationship. SSS was unrelated to JUF scenarios ( $r(281) = -.051$ ,  $p = .39$ ). See Table 36 for full correlation table.

As a baseline measure, the eight-item BIF was also presented to participants at the end of the study. This measure was included, rather than the Kimchi-Palmer figures, as the previous studies suggested that the BIF was most relevant to the variables studied. Again perhaps because the measure was presented much later after the manipulation tasks, there were no differences in the BIF across conditions ( $F(2,278) = .03$ ,  $p = .97$ ). Similar to the previous studies, these were used along with SSS position to attempt to predict ratings of both sets of scenarios. Specifically, the average score of this and the ten-rung SSS measure were entered into a hierarchical multiple regression with their interaction entered in the second step. The residuals of both of these regression analyses appeared normally distributed. It was found that neither SSS, the BIF, nor their interaction were significant predictors of Socially Just but Unfair scenarios ( $R^2 = .006$ ,

$F(3, 277) = .58, p = .63$ ), see Table 37 for details. However, the regression analysis did suggest that FUJ ratings can be predicted by SSS position ( $\beta = .16, p = .001$ ) and marginally by the BIF ( $\beta = -.48, p = .10$ ) but not by their interaction ( $\beta = -.05, p = .81$ ), see Table 38 for details. The complete model predicted only about 4.7% of the variance in FUJ ratings ( $R^2_{\text{adjusted}} = .036, F(3,277) = 4.51, p = .004$ ).

### **c. Post-hoc Analyses**

To attempt to improve this model, several demographic variables were then explored in relation to the ladder and both sets of scenarios. FUJ ratings were positively associated with political identity,  $r(281) = .46, p < .001$ . This variable was a composite measure averaging responses to two items related to the extent to which participants' identified with the labels "liberal/conservative" and "Democrat/Republican" on a scale from 1 = "Not at all" to 7 = "Very." FUJ ratings were also lower for females,  $F(1,279) = 9.78, p = .002$ . Conversely, political identity was negatively associated with JUF ratings,  $r(281) = -.17, p = .004$  (see Table 36 for full correlations table). JUF ratings were also negatively associated with age,  $r(281) = -.18, p = .002$ , and differed across ethnicity,  $F(5,275) = 4.06, p = .001$ . Specifically, a Tukey post hoc test revealed that the average acceptability of JUF scenarios was statistically significantly higher for Blacks/African Americans ( $M = 4.74$ ) than for Whites ( $M = 3.71, p = .009$ ), Asians ( $M = 3.49, p = .027$ ), and Hispanic/Latino/as ( $M = 3.51, p = .014$ ). Also, as can be expected, relative Social Class (SSS) was positively associated with income ( $r(281) = .56, p < .001$ ), conservative political identity ( $r(281) = .14, p = .018$ ), and education ( $F(6,274) = 5.69, p < .001$ ) across 8 increasingly greater education levels. In sum, of the seven demographic variables

explored, political identity, gender, and ethnicity seemed most relevant and influential to the dependent variables.

Thus, a multivariate one-way analysis of covariance was used to compare participants assigned to the three conditions to the two sets of scenarios, controlling for the covariate effects of the strongest variable, political identity. This analysis was found to be statistically non-significant for the effect of condition overall ( $F(4,572) = 1.78, p = .13$ ) indicating that the construal level task was unsuccessful at influencing participants' ratings of the scenarios after controlling for the influence of political identity. Effect sizes ( $\eta^2$ ) show that political identity has a stronger effect on FUJ ratings than JUF ( $\eta^2 = .22$  versus  $.03$ ), see Table 39 for details.

To determine if these demographic variables could contribute to predicting ratings of scenarios, a hierarchical multiple regression analysis tested if SSS, the BIF, gender, political identity could significantly predict participants' ratings of Fair but Socially Unjust scenarios. Their two-way interactions were entered in the second step. In the main effects model, it was found that SSS significantly predicted FUJ ratings ( $\beta = .12, p = .005$ ), as did political identity ( $\beta = .32, p < .001$ ), and gender ( $\beta = -.46, p = .001$ ), while the BIF was marginally significant ( $\beta = -.51, p = .053$ ). None of the two-way interactions were significant. The results of the regression indicated that the full model explained a moderate 26.8% of the variance ( $R^2_{\text{adjusted}} = .249, F(7,273) = 14.28, p < .001$ ), see Table 40 for regression table.

In a similar analysis, hierarchical multiple regression analysis was used to test if SSS, political identity, and the dummy-coded conditions could predict participants' ratings of Socially Just but Unfair scenarios. Their two-way interactions were entered in

the second step, and the regression compared the abstract and control conditions to the concrete condition, as the MANOVA indicated this as the key difference. In the main effects model, it was found that SSS did not significantly predict JUF ratings ( $\beta = -.01$ ,  $p = .73$ ), although political identity did ( $\beta = -.10$ ,  $p = .009$ ). In addition, the dummy-coded abstract construal level condition was a significant predictor of JUF ratings compared to the concrete condition ( $\beta = -.41$ ,  $p = .023$ ) although the control condition was not ( $\beta = -.07$ ,  $p = .67$ ). None of the two-way interactions were significant predictors. See Table 41 for regression table. The results of the regression analysis indicated that the model explained only 5.8% of the variance ( $R^2_{\text{adjusted}} = .034$ ,  $F(7,283) = 2.40$ ,  $p = .022$ ).

#### **4. Discussion of Studies 3 & 4**

In Study 3, construal level manipulations were unsuccessful at influencing participants' responses on the Fairness scale, even when controlling for the effects of participant political identity; there was, however, a stronger negative relationship between Political Identity and Social Justice responses in the abstract construal level condition compared to the concrete and control conditions. Influencing abstract or categorical thinking appears to have increased endorsement of Social Justice for liberals but decreased support for Social Justice for conservatives, judging by the spread of the residuals. In Study 4, the manipulation was unsuccessful at influencing participants' average ratings of scenarios where Social Justice was violated, but, contrary to hypotheses, the abstract condition did reduce ratings of scenarios where Fairness was violated. Interestingly, this effect was not explained by a change in construal level as measured by the BIF. It may be that inducing abstract or categorical thinking highlights the conflict in violating one principal in favor of another overall. However, the effect of



condition here is very small ( $\eta^2 = .02$ ) and may be due to the unequal sample sizes, even though tests showed no difference in variance across conditions.

In Study 3, relative social class, as measured by SSS position, was not a significant predictor of endorsement of social justice or fairness principles; issues with the non-normal distribution of the data may have played a role in this finding being contrary to Study 1's findings. In Study 4, SSS did significantly predict acceptability of scenarios where social justice was violated. That is, the lower in social class people consider themselves, the more disapproving they were of violations of social justice.

Politics was, however, a strong independent predictor of both the scale items and the scenarios in both studies. Interestingly, conservative political identity was a stronger positive predictor of the Fair but Socially Unjust scenarios than of the Socially Just but Unfair scenario ratings. Again, political identity may have less to do with upholding Social Justice than it does with supporting it when in conflict with Fairness.

In terms of cognition, the Behavior Identification Form measuring high and low construal level did not predict the scale responses in Study 3, but in Study 4 it did marginally and negatively predict approval of scenarios where Social Justice was violated. Essentially, participants who were thinking at a higher, more abstract level were significantly more likely to object to the violation of social justice.

Lastly, this objection to violations of social justice was predicted by several variables independently of each other. These included higher level thinking from the BIF, a more liberal political identity, lower relative social class, and being female. Disapproval of the violation of Fairness was interestingly predicted only by conservative political identity and being in the abstract construal level condition.

Overall, Studies 3 and 4 suggest that abstract versus concrete thinking appears to play an independent role in the extent to which liberals support social justice principles, and the extent to which people object to the violation of Fairness principles. Social class appears to have a unique but small effect on the extent to which people object to violations of social justice - but not on thinking about fairness, which remains a fairly universal value.

## **CHAPTER 5**

### **GENERAL DISCUSSION**

The studies proposed in this dissertation aimed to further explore the relationship between social class and beliefs about inequality. Studies 1 and 2 manipulated relative social class and examined its effects on support for group-based equality (social justice) and input-based deservingness (fairness), and also measured individuated versus categorical thinking. Studies 3 and 4 manipulated this thinking, tested its effects on support for Social Justice and Fairness, and measured social class. This avenue of research attempted to demonstrate through measurement and manipulation that an individuated or categorical cognitive perspective is one way of understanding the complex relationship between social class and beliefs about social justice.

In general, results suggested that though the experimental portion of the research, the SSS manipulation, was not successful, social class as measured by the SSS ladder appeared to have a significant effect on support for social justice, but not for fairness. The lower participants saw themselves on the ladder of resources and position in society, the greater their support for group-based equality. This effect was largely independent of political identity, and was particularly demonstrated when participants objected to the violation of social justice in order to uphold fairness principles in real-world scenarios that brought the two values into conflict. This situation was also the foundation for the strongest effects of abstract thinking – higher scores on the BIF decreased approval only for scenarios involving the violation of social justice in favor of fairness.

The ladder manipulation task has been used successfully in similar research and manipulation checks in those studies showed significant differences in SSS position between participants asked to compare themselves to those at the top versus bottom of the

ladder (e.g. Kraus, et al., 2013; Piff, et al., 2010). In Studies 1 and 2, however, the manipulation was unsuccessful at influencing SSS positions even though the exact same manipulation, image, and instructions were utilized, identical to the above mentioned studies. Reasons for this could include the limitations of these samples (although the above mentioned research also accessed online MTurk samples), some other flaw in the studies' design, or perhaps simply the "file drawer" problem wherein only manipulations that were successful have been published. It may also be that the manipulation is not necessarily effective in general: writing a few sentences about hypothetical interactions with people at the top or bottom of the SSS ladder is not a sufficiently influential activity to replace participants' prior perceptions of their social class relative to larger society. SSS position was, however, positively correlated with education level and income. Job type, though, was far more unreliable and was not associated with SSS. This is consistent with other research where the sheer variety inherent in job content, function, and qualifications leads to either too much complexity or oversimplification in coding, and does not allow for accurate association with social class or the creation of a composite measure (Seagert, et al., 2007).

The two types of dependent variables (scale items and scenario ratings) measuring support for fairness and social justice also provided insight in different ways across the studies. In Studies 1 and 3, where the scale items were used, relative social class was not correlated with fairness, but it was negatively correlated with social justice. In Study 1, social class was also an independent negative predictor of social justice, but not of fairness. The effect sizes are in fact comparable to results in similar studies utilizing the MacArthur SSS and measuring related concepts. This was not replicated in Study 3, but

the data in this study appear to be more complex and more difficult to interpret due to normality issues overall. Another explanation may be that the image of the ladder was included with all items to strengthen the SSS manipulation but this was not true of the items in Study 3 and no image was used to strengthen the construal level manipulation.

Interestingly, support for fairness was greater than support for social justice when the scale items were presented, but the converse was true for the scenarios: approval of Socially Just but Unfair scenarios was slightly higher than approval of Fair but Socially Unjust scenarios. One interpretation of this reverse pattern is that the scale items are influenced by social desirability and reflect more automatic or shallow politicized attitudes, while the scenarios are able to reveal a more complex and enduring belief in social justice by bringing it into conflict with fairness and highlighting its relative importance. For the scale items, support for social justice and fairness were not negatively correlated in either the present studies or previous research, demonstrating that many people can endorse both values simultaneously – especially fairness, which has high approval across demographic variables. When it came to the scenarios, participants were forced to make a choice between them and the impact of this conflict calls for further investigation; it remains of interest to understand the characteristics of those who continue to support social justice even when fairness is violated. Similar to a 2015 neuropsychological study that found that higher SES individuals perceived themselves to be more empathic but, in fact, showed less response to others' pain (Varnum, Blaise, Hampton & Brewer, 2015), the pattern found here warrants further exploration as to whether the scale items or conflict-based scenarios are reflecting beliefs more predictive of behavior. Moreover, these differential responses to the two principles across scales

and scenarios provide further evidence for distinguishing social justice and fairness as distinct moral values as reflected in the Model of Moral Motives, but not in Moral Foundations Theory.

Approval of the Socially Just but Unfair scenarios over both Studies 2 and 4 were still best predicted by political identity. In Study 2, they were also negatively correlated with relative social class. This was not replicated in Study 4, but there also seemed to be contradictory results here where participants in the abstract condition reported less approval of these scenarios where social justice was upheld.

Fortunately, results related to the Fair but Socially Unjust scenarios were more consistent across Studies 2 and 4. In both studies, SSS and approval of these scenarios where social justice was violated were positively correlated to the same magnitude. In addition, increased approval of these scenarios was similarly predicted by higher social class, more conservative political identity, and lower construal level across both studies.

In post-hoc analyses, political identity emerged as an important demographic predictor. More liberal participants were predictably more supportive of social justice, but mediation analyses also showed that this effect did not entirely explain the effect of social class on social justice beliefs. That is, social class appears to have had a unique role in influencing approval or disapproval of real-world scenarios where social justice is violated. And, although conservative political identity was differentially associated with the scale items, it was far less influential on the ratings of the scenarios as measured by decreased effect sizes. Moreover, there was greater variability among liberals than among conservatives: while conservatives were predictably and uniformly less supportive of social justice, liberals did not all consistently endorse social justice, suggesting that there

is more to understanding who supports social justice than merely political identity. Last, as in previous studies, the effect of political identity and social class was not as strong for support of fairness, which appears to be less malleable and more universal.

The scenarios where social justice was violated (FUJ) were also where cognition came into play. Specifically, higher scores on the BIF but not the Kimchi-Palmer figures were predictive of decreased approval of these scenarios in both Studies 2 and 4. As mentioned earlier, the two measures are intended to capture related but slightly qualitatively different concepts and it appears that construal level is the more relevant concept over local/global thinking across all four studies. The effect represented by the BIF supports the hypothesis that abstract thinking may increase support for social justice – or, in this case, increase objections to the violation of social justice as in the FUJ scenarios. The present research then brings up several other questions about the relationship between abstract/categorical thinking and social justice. These include the nature of this style of thinking: is it a long-term individual difference or an effect of context and situation? How enduring or flexible is this style of thinking? Future research is warranted.

In the regression analyses, measured construal level did not interact with any of the other predictive variables – particularly not with political identity. In Study 3, however, participants in the abstract construal level condition responded differently to the social justice scale items depending on their political identity: more liberal participants reported increased support of social justice while more conservative participants reported decreased support of social justice. Analyses suggested that this effect strongest for liberals where perhaps thinking abstractly helped strengthen beliefs they already held.

These differential results for measured versus manipulated construal level also suggest that the relationship between the construal level task and the BIF is not clear, i.e. are they accessing the same underlying concept? The present research could thus be expanded by the use of different measures and/or manipulations related to construal level that may be more sensitive to the specific cognitive processes surrounding thinking about social justice and fairness. In addition, the interaction of politics and condition is significant in Study 3 with scale items, but not in Study 4 with scenarios. Unlike Studies 1 and 2 where an image of the ladder was included with each dependent measure item to strengthen the manipulation, no such cue was included with these items. Therefore, it may be that the effect of the abstract/concrete construal level task faded with the cognitive effort required in processing the complex scenarios.

Last, gender was an independent and significant effect on Fair but Unjust scenarios in both Studies 2 and 4 wherein females were less approving of scenarios where social justice was violated. This effect was not driven by difference in political identity or other demographic variables between the genders. One explanation for this is the notion that women are more sensitive to violations of social justice because they are arguably lower in status in a general sense, although not statistically on the SSS in these studies.

Functionally, this moderate and consistent effect suggests that future research should more closely examine the role of two other concepts that are also affected by gender: empathy and interdependence (Varnum, et al., 2015). These may shed more light on both the effect of gender and the basis of support for social justice.

Of course, the four studies presented here are limited in their scope in several ways. One of these is the fact that there were unequal sample sizes between the control groups



and experimental conditions, especially in Studies 3 and 4. This was a result of the study design: participants were randomly and evenly assigned to a condition immediately after providing consent, but more of the participants assigned to the experimental conditions requiring the arduous task of writing in response to a prompt ended their session with incomplete data, i.e., not having completed the manipulation task (these participants were included in the number of dropped participants in the results). Although tests, residuals, and histograms showed homogeneity of variance across the groups, there may be cognitive differences between people who continued with the study and those who terminated their session upon seeing the longer assignment.

Second, the sample comes from an online pool of survey takers who tend to be slightly more liberal in political identity and lower in social class. Analyses on the states in which they resided showed that there were equal numbers of participants from “red” and “blue” states, but there were very few participants who indicated they belonged at the 9- or 10-rung mark on the SSS (on average, 3 participants in each study) compared to the 1- or 2-run mark (on average, 125 participants in each study and only about two participants at rung 1 in each study). A future step may be accessing a different sample with greater variance across the SSS ladder, especially towards the high end.

Moreover, the majority of participants and, indeed, people, tend to consider themselves “middle class” and, thus, place themselves between 4 and 6 on the SSS. For most people, social class remains a relative concept, highly linked to social comparison and reference groups. Even as globalization in the present may be increasing exposure to the ultra-rich and/or desperately poor, this may not necessarily affect the self-concept.

Thus, stronger manipulations using greater perspective-taking and manipulation of the reference group may deliver more consistent effects.

Simultaneously, other programs of research suggest that social class is more than just rank and that the sociopolitical context of class should be an important consideration (Stephens & Townsend, 2013). One application of this to the present work is that the culture of social class is more unique in and relevant to the top and bottom of the SSS ladder, but not so much in the middle. Such a perspective would make accessing a wider range of people from different class backgrounds even more imperative.

Ultimately, just as previous research has suggested that increases in social class are associated with decreases in empathy, ethical behavior, and interdependence, and increases in essentialism, deservingness, and hierarchy, the present research would add decreased support for social justice to this list. This is particularly concerning in that U.S. society at least is moving towards greater inequality and this research suggests that the gap in income and resources will continue to translate into a gap in attitudes and beliefs about society as a whole. More understanding of the effects of social class on social justice can serve as a step towards understanding the maintenance of economic inequality, particularly by the high social class who tend to be in power. In a practical sense, these studies and other research that aligns with it advocate for that power to be systematically distributed more evenly with such efforts as more political representation by low-SES groups and opposition to voter-suppression efforts. In addition, low-SES and race are highly linked in the U.S. and although these studies did not have enough statistical power to test effects of and interactions with race and ethnicity, this could be an interesting extension of the research.

The present research also suggests that there is far more complexity in the answer to the question of who supports social justice principles in the face of conflict – social class, political identity, and other demographic variables may play a small role but they are by no means the sum of the explanation. Considering that abstract thinking played a particular role in determining support for social justice when in conflict with fairness, it may be that this question is partly answered by the extent to which one broadly defines a community or a larger society to include people unlike themselves. The relationship between abstract thinking and scenarios in which social justice is violated to uphold fairness is a particularly interesting avenue of future research. More involved scenarios or a different measure/manipulation of abstract thinking may be able to better demonstrate the underlying effect. Other minor results also suggest that the model presented here is incomplete; empathy or interdependence may serve greater functions than the literature suggests and these deserve exploration.

Furthermore, if social justice is a form of principlism, a reliable and rational motivation to uphold a moral principle, then understanding the antecedents of social justice and fairness, beyond the constraints of social class and self-interest, is critical to alleviating the large-scale and pernicious effects of socioeconomic inequality. In general, the results of these studies suggest that social class and abstract thinking play significant and independent roles in determining who supports social justice in the face of conflict. Moving forward, exploring the ways in which social class and abstract thinking affect our perceptions of the people and communities around us would allow us to gain a better understanding of moral attitudes towards socioeconomic inequality.

Table 1: Study 1 Means & Standard Deviations

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
Ladder	302	1	10	4.83	1.804	.010	.140
F_M	302	1.80	7.00	5.4715	1.01989	-.622	.140
SJ_M	302	1.00	7.00	5.1364	1.32803	-.595	.140
KPtot_avg	302	.00	1.00	.4677	.44355	.110	.140
BIFtot_avg	302	.00	1.00	.5695	.24460	-.333	.140
Valid N (listwise)	302						

Table 2: Study 1 ANOVA tables

**ANOVA**

		Sum of Squares	df	Mean Square	F	Sig.
Ladder	Between Groups	4.880	2	2.440	.749	.474
	Within Groups	974.167	299	3.258		
	Total	979.046	301			
F_M	Between Groups	1.389	2	.694	.666	.514
	Within Groups	311.706	299	1.042		
	Total	313.095	301			
SJ_M	Between Groups	1.268	2	.634	.358	.699
	Within Groups	529.592	299	1.771		
	Total	530.859	301			

Table 3: Study 1 Means by Conditions

**Descriptives**

		N	Mean	Std. Deviation	Std. Error
Ladder	0	132	4.89	1.728	.150
	1	88	4.93	1.946	.207
	2	82	4.62	1.768	.195
	Total	302	4.83	1.804	.104
F_M	0	132	5.5182	.95100	.08277
	1	88	5.3659	1.11096	.11843
	2	82	5.5098	1.02952	.11369
	Total	302	5.4715	1.01989	.05869
SJ_M	0	132	5.2061	1.21792	.10601
	1	88	5.1091	1.33663	.14249
	2	82	5.0537	1.49007	.16455
	Total	302	5.1364	1.32803	.07642

Table 4: Study 1 Correlations

		Correlations							
		Ladder	F_M	SJ_M	KPtot_avg	BIFtot_avg	Age	Income	Polit
Ladder	Pearson Correlation	1	-.027	-.221**	.002	-.064	.119*	.531**	.167**
	Sig. (2-tailed)		.637	.000	.974	.267	.039	.000	.004
	N	302	302	302	302	302	301	302	302
F_M	Pearson Correlation	-.027	1	.113	-.059	.066	.064	.025	.201**
	Sig. (2-tailed)	.637		.050	.309	.256	.266	.667	.000
	N	302	302	302	302	302	301	302	302
SJ_M	Pearson Correlation	-.221**	.113	1	-.039	.038	.024	-.149**	-.481**
	Sig. (2-tailed)	.000	.050		.495	.514	.679	.009	.000
	N	302	302	302	302	302	301	302	302
KPtot_avg	Pearson Correlation	.002	-.059	-.039	1	.068	.145*	-.011	-.028
	Sig. (2-tailed)	.974	.309	.495		.238	.012	.844	.627
	N	302	302	302	302	302	301	302	302
BIFtot_avg	Pearson Correlation	-.064	.066	.038	.068	1	-.132*	-.078	-.096
	Sig. (2-tailed)	.267	.256	.514	.238		.022	.175	.095
	N	302	302	302	302	302	301	302	302
Age	Pearson Correlation	.119*	.064	.024	.145*	-.132*	1	.079	.105
	Sig. (2-tailed)	.039	.266	.679	.012	.022		.173	.068
	N	301	301	301	301	301	301	301	301
Income	Pearson Correlation	.531**	.025	-.149**	-.011	-.078	.079	1	.049
	Sig. (2-tailed)	.000	.667	.009	.844	.175	.173		.391
	N	302	302	302	302	302	301	302	302
Polit	Pearson Correlation	.167**	.201**	-.481**	-.028	-.096	.105	.049	1
	Sig. (2-tailed)	.004	.000	.000	.627	.095	.068	.391	
	N	302	302	302	302	302	301	302	302

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

Table 5: Study 1 Multiple Regression of Fairness on SSS and Kimchi-Palmer Figures

		Coefficients <sup>a</sup>				
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.609	.179		31.308	.000
	Ladder	-.015	.033	-.027	-.470	.639
	KPtot_avg	-.135	.133	-.059	-1.018	.310
2	(Constant)	5.619	.237		23.739	.000
	Ladder	-.017	.046	-.031	-.380	.704
	KPtot_avg	-.158	.378	-.069	-.419	.675
	Ladder_x_KPtotavg	.005	.074	.011	.066	.948

a. Dependent Variable: F\_M

Table 6: Study 1 Multiple Regression of Fairness on SSS and BIF

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.383	.224		24.075	.000
	Ladder	-.013	.033	-.023	-.400	.689
	BIFtot_avg	.267	.241	.064	1.108	.269
2	(Constant)	4.838	.428		11.303	.000
	Ladder	.097	.081	.172	1.201	.231
	BIFtot_avg	1.214	.680	.291	1.786	.075
	Ladder_x_BIFavg	-.194	.130	-.302	-1.490	.137

a. Dependent Variable: F\_M

Table 7: Study 1 Multiple Regression of Social Justice on SSS and BIF

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.844	.285		20.537	.000
	Ladder	-.162	.042	-.219	-3.884	.000
	BIFtot_avg	.128	.307	.024	.418	.676
2	(Constant)	5.574	.546		10.200	.000
	Ladder	-.107	.103	-.145	-1.037	.301
	BIFtot_avg	.597	.868	.110	.688	.492
	Ladder_x_BIFavg	-.096	.166	-.115	-.578	.564

a. Dependent Variable: SJ\_M

Table 8: Study 1 Multiple Regression of Social Justice on SSS and Kimchi-Palmer figures

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.976	.228		26.235	.000
	Ladder	-.163	.041	-.221	-3.920	.000
	KPtot_avg	-.117	.169	-.039	-.693	.489
2	(Constant)	5.941	.301		19.739	.000
	Ladder	-.155	.058	-.211	-2.652	.008
	KPtot_avg	-.035	.480	-.012	-.073	.942
	Ladder_x_KPtotavg	-.017	.094	-.031	-.182	.855

a. Dependent Variable: SJ\_M

Table 9: Study 1 Partial Correlations Table

**Correlations**

Control Variables		Ladder	F_M	SJ_M	
Edu & Income & Polit	Ladder	Correlation	1.000	-.082	-.116
		Significance (2-tailed)	.	.157	.045
		df	0	297	297
F_M	F_M	Correlation	-.082	1.000	.249
		Significance (2-tailed)	.157	.	.000
		df	297	0	297
SJ_M	SJ_M	Correlation	-.116	.249	1.000
		Significance (2-tailed)	.045	.000	.
		df	297	297	0

Table 10: Study 1 Multiple Regression of Social Justice on SSS and Political Identity

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.966	.218		31.962	.000
	Ladder	-.115	.037	-.159	-3.122	.002
	Polit	-.342	.038	-.451	-8.883	.000
2	(Constant)	7.288	.447		16.315	.000
	Ladder	-.181	.088	-.250	-2.054	.041
	Polit	-.428	.111	-.565	-3.843	.000
	Ladder_x_Polit	.017	.021	.163	.825	.410

a. Dependent Variable: SJ\_M

Table 11: Study 1 Multiple Regression of Fairness on SSS and Political Identity

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.175	.192		26.951	.000
	Ladder	-.033	.032	-.058	-1.002	.317
	Polit	.122	.034	.207	3.593	.000
2	(Constant)	5.537	.393		14.081	.000
	Ladder	-.107	.078	-.190	-1.379	.169
	Polit	.025	.098	.042	.251	.802
	Ladder_x_Polit	.019	.018	.236	1.057	.292

a. Dependent Variable: F\_M

Table 12: Study 2 Means & Standard Deviations

Descriptive Statistics							
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
Ladder	296	1	10	5.00	1.702	-.039	.142
F_Mean	296	1.00	7.00	3.4068	1.30883	.519	.142
SJ_Mean	296	1.00	7.00	3.7946	1.18601	.043	.142
KPtot	296	.00	1.00	.5405	.44190	-.167	.142
BIFtot	296	.00	1.00	.5524	.26160	-.267	.142
Valid N (listwise)	296						

Table 13: Study 2 ANOVA of SSS by condition

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Ladder	Between Groups	4.718	2	2.359	.813	.445
	Within Groups	850.279	293	2.902		
	Total	854.997	295			

Table 14: Study 2 MANOVA of scenarios by condition

Univariate Tests							
Dependent Variable		Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
F_Mean	Contrast	8.078	2	4.039	2.380	.094	.016
	Error	497.268	293	1.697			
SJ_Mean	Contrast	5.717	2	2.859	2.047	.131	.014
	Error	409.234	293	1.397			

The F tests the effect of Cond. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.



Table 15: Study 2 Correlations

		Correlations							
		Ladder	F_Mean	SJ_Mean	KPtot	BIFtot	Polit	Age	Income
Ladder	Pearson Correlation	1	.190**	-.120*	-.111	.060	.133*	-.012	.558**
	Sig. (2-tailed)		.001	.039	.056	.307	.022	.842	.000
	N	296	296	296	296	296	296	296	296
F_Mean	Pearson Correlation	.190**	1	.188**	-.047	-.143*	.422**	.025	.204**
	Sig. (2-tailed)	.001		.001	.420	.014	.000	.662	.000
	N	296	296	296	296	296	296	296	296
SJ_Mean	Pearson Correlation	-.120*	.188**	1	.058	-.085	-.273**	-.050	-.111
	Sig. (2-tailed)	.039	.001		.317	.144	.000	.396	.056
	N	296	296	296	296	296	296	296	296
KPtot	Pearson Correlation	-.111	-.047	.058	1	-.062	.008	.110	.037
	Sig. (2-tailed)	.056	.420	.317		.285	.891	.058	.527
	N	296	296	296	296	296	296	296	296
BIFtot	Pearson Correlation	.060	-.143*	-.085	-.062	1	-.043	-.050	.020
	Sig. (2-tailed)	.307	.014	.144	.285		.458	.391	.738
	N	296	296	296	296	296	296	296	296
Polit	Pearson Correlation	.133*	.422**	-.273**	.008	-.043	1	.188**	.179**
	Sig. (2-tailed)	.022	.000	.000	.891	.458		.001	.002
	N	296	296	296	296	296	296	296	296
Age	Pearson Correlation	-.012	.025	-.050	.110	-.050	.188**	1	.109
	Sig. (2-tailed)	.842	.662	.396	.058	.391	.001		.061
	N	296	296	296	296	296	296	296	296
Income	Pearson Correlation	.558**	.204**	-.111	.037	.020	.179**	.109	1
	Sig. (2-tailed)	.000	.000	.056	.527	.738	.002	.061	
	N	296	296	296	296	296	296	296	296

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

Table 16: Study 2 Multiple Regression of JUF scenarios on SSS and Kimchi-Palmer task

		Coefficients <sup>a</sup>				
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.129	.239		17.297	.000
	Ladder	-.080	.041	-.115	-1.969	.050
	KPtot	.122	.156	.046	.781	.435
2	(Constant)	4.006	.347		11.556	.000
	Ladder	-.057	.063	-.081	-.898	.370
	KPtot	.349	.493	.130	.710	.479
	Ladder_x_KPtot	-.045	.092	-.092	-.487	.627

a. Dependent Variable: SJ\_Mean

Table 17: Study 2 Multiple Regression of JUF scenarios on SSS and BIF

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.392	.251		17.499	.000
	Ladder	-.080	.040	-.115	-1.989	.048
	BIFtot	-.355	.263	-.078	-1.351	.178
2	(Constant)	3.996	.491		8.142	.000
	Ladder	-.001	.093	-.002	-.015	.988
	BIFtot	.381	.826	.084	.461	.645
	Ladder_x_BIFtot	-.145	.154	-.210	-.940	.348

a. Dependent Variable: SJ\_Mean

Table 18: Study 2 Multiple Regression of FUJ scenarios on SSS and Kimchi-Palmer task

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.729	.261		10.468	.000
	Ladder	.144	.044	.187	3.245	.001
	KPtot	-.078	.171	-.026	-.455	.649
2	(Constant)	2.563	.379		6.772	.000
	Ladder	.176	.069	.228	2.553	.011
	KPtot	.229	.538	.077	.427	.670
	Ladder_x_KPtot	-.061	.101	-.113	-.602	.547

a. Dependent Variable: F\_Mean

Table 19: Study 2 Multiple Regression of FUJ scenarios on SSS and BIF

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.068	.271		11.308	.000
	Ladder	.153	.044	.199	3.514	.001
	BIFtot	-.775	.284	-.155	-2.731	.007
2	(Constant)	2.590	.530		4.884	.000
	Ladder	.248	.101	.323	2.469	.014
	BIFtot	.112	.893	.022	.126	.900
	Ladder_x_BIFtot	-.175	.167	-.230	-1.049	.295

a. Dependent Variable: F\_Mean

Table 20: Study 2 Partial Correlations

**Correlations**

Control Variables			Ladder	F_Mean	SJ_Mean
Polit	Ladder	Correlation	1.000	.149	-.087
		Significance (2-tailed)	.	.010	.134
		df	0	293	293
F_Mean	F_Mean	Correlation	.149	1.000	.347
		Significance (2-tailed)	.010	.	.000
		df	293	0	293
SJ_Mean	SJ_Mean	Correlation	-.087	.347	1.000
		Significance (2-tailed)	.134	.000	.
		df	293	293	0

Table 21: Study 2 ANCOVA

**Univariate Tests**

Dependent Variable: Ladder

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Contrast	4.836	2	2.418	.842	.432	.006
Error	833.079	290	2.873			

The F tests the effect of Cond. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

Table 22: Study 2 MANCOVA

**Univariate Tests**

Dependent Variable		Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
F_Mean	Contrast	6.949	2	3.474	2.467	.087	.017
	Error	408.403	290	1.408			
SJ_Mean	Contrast	6.290	2	3.145	2.419	.091	.016
	Error	377.075	290	1.300			

The F tests the effect of Cond. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

Table 23: Study 2 Multiple regression on JUF scenarios

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.761	.238		20.031	.000
	Ladder	-.059	.039	-.085	-1.503	.134
	Polit	-.190	.041	-.262	-4.632	.000
2	(Constant)	4.826	.531		9.086	.000
	Ladder	-.072	.102	-.103	-.706	.481
	Polit	-.208	.138	-.287	-1.505	.133
	Ladder_x_Polit	.004	.026	.034	.137	.891

a. Dependent Variable: SJ\_Mean

Table 24: Study 2 Multiple Regression on FUJ scenarios

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.213	.267		8.274	.000
	DL	-.388	.159	-.137	-2.448	.015
	DH	-.239	.164	-.082	-1.459	.146
	Ladder	.105	.040	.136	2.616	.009
	Polit	.314	.041	.391	7.584	.000
	C_BIFtot	-.737	.256	-.147	-2.882	.004
	Female1	-.437	.135	-.166	-3.236	.001
2	(Constant)	2.956	.560		5.275	.000
	DL	-.461	.361	-.163	-1.277	.203
	DH	-.229	.164	-.078	-1.392	.165
	Ladder	-.041	.105	-.053	-.387	.699
	Polit	.108	.143	.134	.754	.451
	C_BIFtot	-.776	.646	-.155	-1.202	.231
	Female1	-.437	.135	-.166	-3.228	.001
	DLxPolit	.021	.093	.030	.231	.817
	DLxCBIF	-.048	.581	-.005	-.083	.934
	Polit_x_CBIF	.023	.154	.019	.150	.881
	Ladder_x_Polit	.039	.026	.342	1.501	.135

a. Dependent Variable: F\_Mean

Table 25: Study 3 Means and Standard Deviations

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
R_Ladder	295	1.00	10.00	5.0542	1.81933	-.050	.142
Fair_Mean	295	2.00	7.00	5.2237	1.00981	-.404	.142
SJ_Mean	295	1.00	7.00	5.0820	1.37388	-.392	.142
KP_Mean	295	.00	1.00	.4881	.45113	.054	.142
BIF_mean	295	.00	1.00	.6441	.29953	-.450	.142
Valid N (listwise)	295						

Table 26: Study 3 ANOVA

**ANOVA**

		Sum of Squares	df	Mean Square	F	Sig.
Fair_Mean	Between Groups	3.629	2	1.815	1.789	.169
	Within Groups	296.165	292	1.014		
	Total	299.794	294			
SJ_Mean	Between Groups	2.877	2	1.439	.761	.468
	Within Groups	552.057	292	1.891		
	Total	554.935	294			
R_Ladder	Between Groups	6.786	2	3.393	1.025	.360
	Within Groups	966.347	292	3.309		
	Total	973.132	294			
KP_Mean	Between Groups	.052	2	.026	.126	.881
	Within Groups	59.782	292	.205		
	Total	59.833	294			
BIF_mean	Between Groups	.163	2	.081	.906	.405
	Within Groups	26.214	292	.090		
	Total	26.377	294			

Table 27: Study 3 Pearson's Correlations

Correlations

		Fair_Mean	SJ_Mean	R_Ladder	KP_Mean	BIF_mean	Polit	Age	Income
Fair_Mean	Pearson Correlation	1	.125*	.122*	.061	.066	.220**	.078	.108
	Sig. (2-tailed)		.032	.036	.296	.257	.000	.183	.065
	N	295	295	295	295	295	295	291	291
SJ_Mean	Pearson Correlation	.125*	1	-.084	.021	.068	-.545**	.024	-.112
	Sig. (2-tailed)	.032		.149	.726	.245	.000	.681	.057
	N	295	295	295	295	295	295	291	291
R_Ladder	Pearson Correlation	.122*	-.084	1	.013	.048	.164**	.052	.610**
	Sig. (2-tailed)	.036	.149		.821	.411	.005	.379	.000
	N	295	295	295	295	295	295	291	291
KP_Mean	Pearson Correlation	.061	.021	.013	1	.117*	-.014	.229**	.083
	Sig. (2-tailed)	.296	.726	.821		.046	.807	.000	.158
	N	295	295	295	295	295	295	291	291
BIF_mean	Pearson Correlation	.066	.068	.048	.117*	1	-.034	.101	.072
	Sig. (2-tailed)	.257	.245	.411	.046		.559	.086	.224
	N	295	295	295	295	295	295	291	291
Polit	Pearson Correlation	.220**	-.545**	.164**	-.014	-.034	1	.162**	.113
	Sig. (2-tailed)	.000	.000	.005	.807	.559		.005	.054
	N	295	295	295	295	295	295	291	291
Age	Pearson Correlation	.078	.024	.052	.229**	.101	.162**	1	.050
	Sig. (2-tailed)	.183	.681	.379	.000	.086	.005		.393
	N	291	291	291	291	291	291	291	291
Income	Pearson Correlation	.108	-.112	.610**	.083	.072	.113	.050	1
	Sig. (2-tailed)	.065	.057	.000	.158	.224	.054	.393	
	N	291	291	291	291	291	291	291	291

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\* Correlation is significant at the 0.01 level (2-tailed).

Table 28: Study 3 Spearman's Correlations

			Correlations							
			Fair_Mean	SJ_Mean	R_Ladder	KP_Mean	BIF_mean	Polit	Age	Income
Spearman's rho	Fair_Mean	Correlation Coefficient	1.000	.106	.087	.071	.099	.229**	.064	.097
		Sig. (2-tailed)	.	.070	.134	.222	.089	.000	.273	.098
		N	295	295	295	295	295	295	291	291
SJ_Mean	Correlation Coefficient	.106	1.000	-.121*	.042	.083	-.550**	.001	-.146*	
	Sig. (2-tailed)	.070	.	.038	.473	.153	.000	.988	.013	
	N	295	295	295	295	295	295	291	291	
R_Ladder	Correlation Coefficient	.087	-.121*	1.000	.027	.034	.174**	.048	.623**	
	Sig. (2-tailed)	.134	.038	.	.646	.560	.003	.413	.000	
	N	295	295	295	295	295	295	291	291	
KP_Mean	Correlation Coefficient	.071	.042	.027	1.000	.093	-.009	.239**	.092	
	Sig. (2-tailed)	.222	.473	.646	.	.111	.880	.000	.117	
	N	295	295	295	295	295	295	291	291	
BIF_mean	Correlation Coefficient	.099	.083	.034	.093	1.000	-.029	.106	.077	
	Sig. (2-tailed)	.089	.153	.560	.111	.	.616	.070	.192	
	N	295	295	295	295	295	295	291	291	
Polit	Correlation Coefficient	.229**	-.550**	.174**	-.009	-.029	1.000	.147*	.129*	
	Sig. (2-tailed)	.000	.000	.003	.880	.616	.	.012	.028	
	N	295	295	295	295	295	295	291	291	
Age	Correlation Coefficient	.064	.001	.048	.239**	.106	.147*	1.000	.100	
	Sig. (2-tailed)	.273	.988	.413	.000	.070	.012	.	.090	
	N	291	291	291	291	291	291	291	291	
Income	Correlation Coefficient	.097	-.146*	.623**	.092	.077	.129*	.100	1.000	
	Sig. (2-tailed)	.098	.013	.000	.117	.192	.028	.090	.	
	N	291	291	291	291	291	291	291	291	

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

Table 29: Study 3 Multiple Regression on Social Justice by SSS and BIF

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.204	.286		18.209	.000
	R_Ladder	-.066	.044	-.088	-1.506	.133
	BIF_mean	.331	.267	.072	1.238	.217
2	(Constant)	5.371	.539		9.962	.000
	R_Ladder	-.100	.102	-.132	-.977	.329
	BIF_mean	.064	.778	.014	.082	.934
	RLadder_x_BIF	.053	.146	.078	.365	.715

a. Dependent Variable: SJ\_Mean

Table 30: Study 3 Multiple Regression on Fairness by SSS and BIF

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.759	.209		22.726	.000
	R_Ladder	.066	.032	.119	2.049	.041
	BIF_mean	.204	.196	.061	1.043	.298
2	(Constant)	4.446	.395		11.270	.000
	R_Ladder	.129	.075	.233	1.725	.086
	BIF_mean	.703	.569	.209	1.236	.217
	RLadder_x_BIF	-.100	.107	-.199	-.934	.351

a. Dependent Variable: Fair\_Mean

Table 31: Study 3 ANCOVA on Social Justice by Condition/Politics

**Tests of Between-Subjects Effects**

Dependent Variable: SJ\_Mean

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	180.700 <sup>a</sup>	5	36.140	27.909	.000
Intercept	2430.638	1	2430.638	1877.042	.000
Cond * Polit	15.736	2	7.868	6.076	.003
Cond	12.632	2	6.316	4.877	.008
Polit	168.577	1	168.577	130.182	.000
Error	374.235	289	1.295		
Total	8173.920	295			
Corrected Total	554.935	294			

a. R Squared = .326 (Adjusted R Squared = .314)



Table 32: Study 3 Multiple Regression on Social Justice

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.553	.248		26.410	.000
	R_Ladder	.004	.038	.006	.110	.912
	Polit	-.442	.041	-.545	-10.862	.000
	Dummy_Concrete	.075	.162	.025	.460	.646
	Dummy_Abstract	.021	.166	.007	.128	.898
2	(Constant)	6.876	.463		14.865	.000
	R_Ladder	-.136	.081	-.180	-1.676	.095
	Polit	-.556	.132	-.686	-4.228	.000
	Dummy_Concrete	.353	.376	.117	.938	.349
	Dummy_Abstract	1.018	.356	.333	2.860	.005
	DConcrete_x_Polit	-.066	.097	-.085	-.676	.500
	DAbstract_x_Polit	-.298	.096	-.360	-3.103	.002
	RLadder_x_Polit	.042	.022	.356	1.894	.059

a. Dependent Variable: SJ\_Mean

Table 33: Study 3 Multiple Regression on Fairness

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.555	.193		23.643	.000
	R_Ladder	.049	.032	.088	1.527	.128
	Polit	.123	.034	.206	3.573	.000
2	(Constant)	4.597	.362		12.712	.000
	R_Ladder	.040	.069	.073	.581	.562
	Polit	.109	.102	.184	1.074	.284
	RLadder_x_Polit	.003	.019	.030	.138	.890

a. Dependent Variable: Fair\_Mean

Table 34: Study 4 Means & SDs

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
FUJ_Meantot	281	1.00	7.00	3.6349	1.27046	.254	.145
JUF_Meantot	281	1.00	7.00	3.7260	1.12132	.083	.145
Ladder	281	1	9	4.98	1.650	-.062	.145
BIF_mean	281	.00	1.00	.5334	.25453	-.190	.145
Valid N (listwise)	281						

Table 35: Study 4 MANOVA scenarios by condition

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	FUJ_Meantot	2.615 <sup>a</sup>	2	1.307	.809	.446	.006
	JUF_Meantot	8.436 <sup>b</sup>	2	4.218	3.412	.034	.024
Intercept	FUJ_Meantot	3496.345	1	3496.345	2163.217	.000	.886
	JUF_Meantot	3533.603	1	3533.603	2858.766	.000	.911
Cond	FUJ_Meantot	2.615	2	1.307	.809	.446	.006
	JUF_Meantot	8.436	2	4.218	3.412	.034	.024
Error	FUJ_Meantot	449.323	278	1.616			
	JUF_Meantot	343.624	278	1.236			
Total	FUJ_Meantot	4164.600	281				
	JUF_Meantot	4253.160	281				
Corrected Total	FUJ_Meantot	451.938	280				
	JUF_Meantot	352.060	280				

a. R Squared = .006 (Adjusted R Squared = -.001)

b. R Squared = .024 (Adjusted R Squared = .017)

Table 36: Study 4 Correlations

Correlations

		Ladder	FUJ_Meantot	JUF_Meantot	BIF_mean	Politics	Income	Age
Ladder	Pearson Correlation	1	.193**	-.051	.107	.141*	.561**	.079
	Sig. (2-tailed)		.001	.394	.073	.018	.000	.189
	N	281	281	281	281	281	281	281
FUJ_Meantot	Pearson Correlation	.193**	1	.153*	-.074	.460**	.034	-.001
	Sig. (2-tailed)	.001		.010	.218	.000	.571	.980
	N	281	281	281	281	281	281	281
JUF_Meantot	Pearson Correlation	-.051	.153*	1	.007	-.172**	-.047	-.182**
	Sig. (2-tailed)	.394	.010		.905	.004	.429	.002
	N	281	281	281	281	281	281	281
BIF_mean	Pearson Correlation	.107	-.074	.007	1	-.027	.025	.028
	Sig. (2-tailed)	.073	.218	.905		.654	.677	.640
	N	281	281	281	281	281	281	281
Politics	Pearson Correlation	.141*	.460**	-.172**	-.027	1	.043	.028
	Sig. (2-tailed)	.018	.000	.004	.654		.471	.645
	N	281	281	281	281	281	281	281
Income	Pearson Correlation	.561**	.034	-.047	.025	.043	1	.086
	Sig. (2-tailed)	.000	.571	.429	.677	.471		.150
	N	281	281	281	281	281	281	281
Age	Pearson Correlation	.079	-.001	-.182**	.028	.028	.086	1
	Sig. (2-tailed)	.189	.980	.002	.640	.645	.150	
	N	281	281	281	281	281	281	281

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

Table 37: Study 4 Multiple Regression on JUF

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.873	.245		15.824	.000
	Ladder	-.036	.041	-.052	-.870	.385
	BIF_mean	.056	.265	.013	.211	.833
2	(Constant)	4.316	.509		8.472	.000
	Ladder	-.129	.103	-.189	-1.255	.211
	BIF_mean	-.764	.870	-.173	-.878	.381
	Ladder_x_BIF	.170	.172	.250	.990	.323

a. Dependent Variable: JUF\_Meantot

Table 38: Study 4 Multiple Regression on FUJ

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.109	.271		11.463	.000
	Ladder	.157	.045	.203	3.454	.001
	BIF_mean	-.477	.294	-.096	-1.621	.106
2	(Constant)	2.987	.565		5.284	.000
	Ladder	.182	.114	.237	1.601	.111
	BIF_mean	-.251	.966	-.050	-.260	.795
	Ladder_x_BIF	-.047	.191	-.061	-.245	.807

a. Dependent Variable: FUJ\_Meantot

Table 39: Study 4 MANCOVA condition and politics on scenarios

**Tests of Between-Subjects Effects**

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	FUJ_Meantot	101.276 <sup>a</sup>	5	20.255	15.885	.000	.224
	JUF_Meantot	17.877 <sup>b</sup>	5	3.575	2.942	.013	.051
Intercept	FUJ_Meantot	245.475	1	245.475	192.509	.000	.412
	JUF_Meantot	753.772	1	753.772	620.281	.000	.693
Cond * Politics	FUJ_Meantot	4.874	2	2.437	1.911	.150	.014
	JUF_Meantot	.511	2	.256	.210	.810	.002
Cond	FUJ_Meantot	3.365	2	1.682	1.319	.269	.010
	JUF_Meantot	.348	2	.174	.143	.867	.001
Politics	FUJ_Meantot	96.637	1	96.637	75.785	.000	.216
	JUF_Meantot	9.170	1	9.170	7.546	.006	.027
Error	FUJ_Meantot	350.662	275	1.275			
	JUF_Meantot	334.183	275	1.215			
Total	FUJ_Meantot	4164.600	281				
	JUF_Meantot	4253.160	281				
Corrected Total	FUJ_Meantot	451.938	280				
	JUF_Meantot	352.060	280				

a. R Squared = .224 (Adjusted R Squared = .210)

b. R Squared = .051 (Adjusted R Squared = .034)

Table 40: Study 4 Multiple Regression on FUJ ratings

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.397	.280		8.565	.000
	Ladder	.115	.040	.149	2.845	.005
	BIF_mean	-.508	.261	-.102	-1.944	.053
	Politics	.321	.039	.428	8.196	.000
	Female1	-.460	.132	-.181	-3.479	.001
2	(Constant)	2.758	.706		3.905	.000
	Ladder	.054	.142	.070	.382	.703
	BIF_mean	-.805	.856	-.161	-.940	.348
	Politics	.270	.128	.360	2.109	.036
	Female1	-.607	.317	-.239	-1.917	.056
	Ladder_x_BIF	.064	.170	.083	.377	.706
	Ladder_x_Polit	.006	.024	.056	.259	.796
	Female_x_Polit	.040	.079	.069	.509	.611

a. Dependent Variable: FUJ\_Meantot

Table 41: Study 4 Multiple Regression on JUF ratings

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.292	.261		16.429	.000
	Ladder	-.014	.041	-.020	-.339	.735
	Politics	-.104	.039	-.157	-2.644	.009
	Dummy_Abstract	-.408	.178	-.151	-2.290	.023
	Dummy_Control	-.065	.150	-.029	-.430	.667
2	(Constant)	4.847	.577		8.407	.000
	Ladder	-.142	.101	-.209	-1.403	.162
	Politics	-.250	.141	-.378	-1.781	.076
	Dummy_Abstract	-.200	.430	-.074	-.465	.642
	Dummy_Control	-.041	.362	-.018	-.114	.910
	Ladder_x_Polit	.034	.024	.343	1.397	.163
	Polit_x_Abstract	-.058	.103	-.095	-.565	.572
	Polit_x_Control	-.011	.091	-.019	-.116	.907

a. Dependent Variable: JUF\_Meantot

Figure 1: Study 1 Partial Mediation of Social Class and Social Justice by Politics (34%)

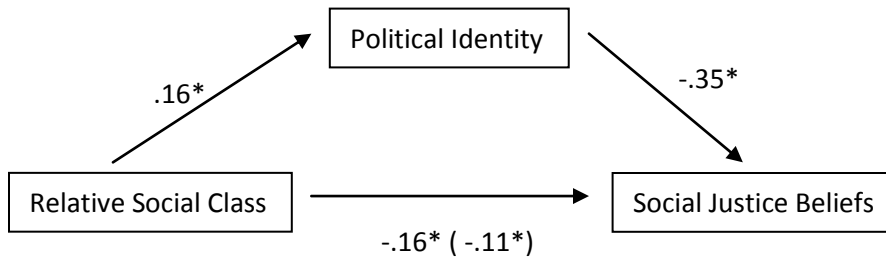


Figure 2: Study 2 Partial Mediation of Social Class and FUJ scenarios by Politics (28%)

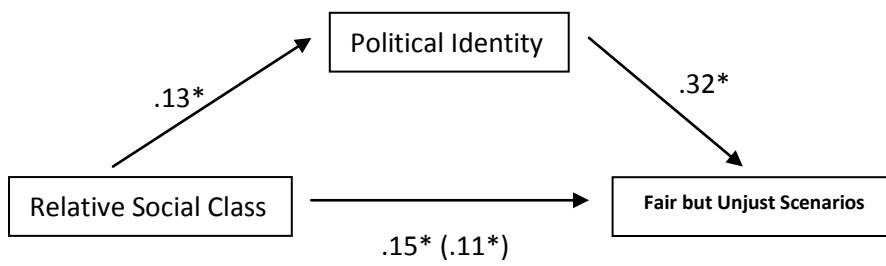


Figure 3: Study 3 Politics by Condition interaction on Social Justice (Condition 2 = Abstract)

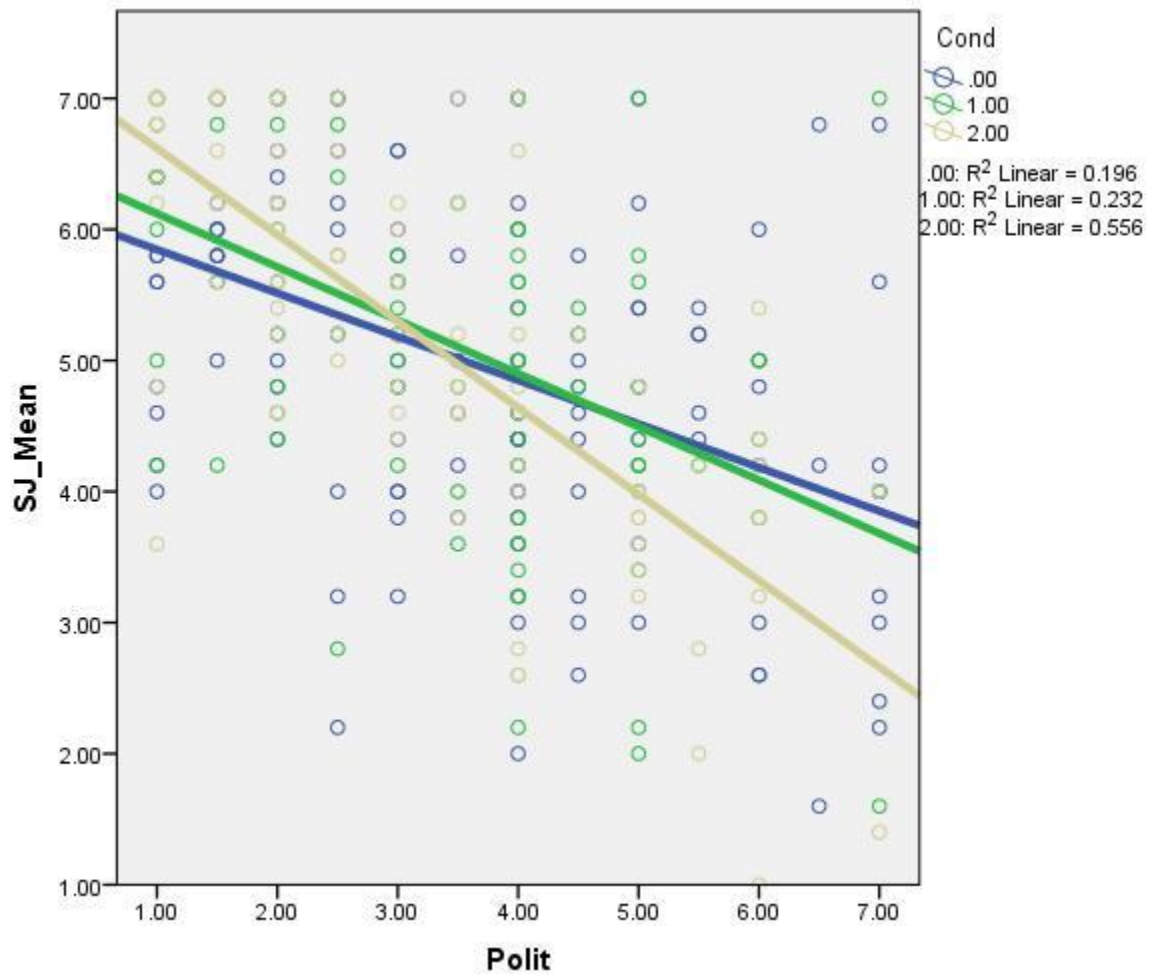
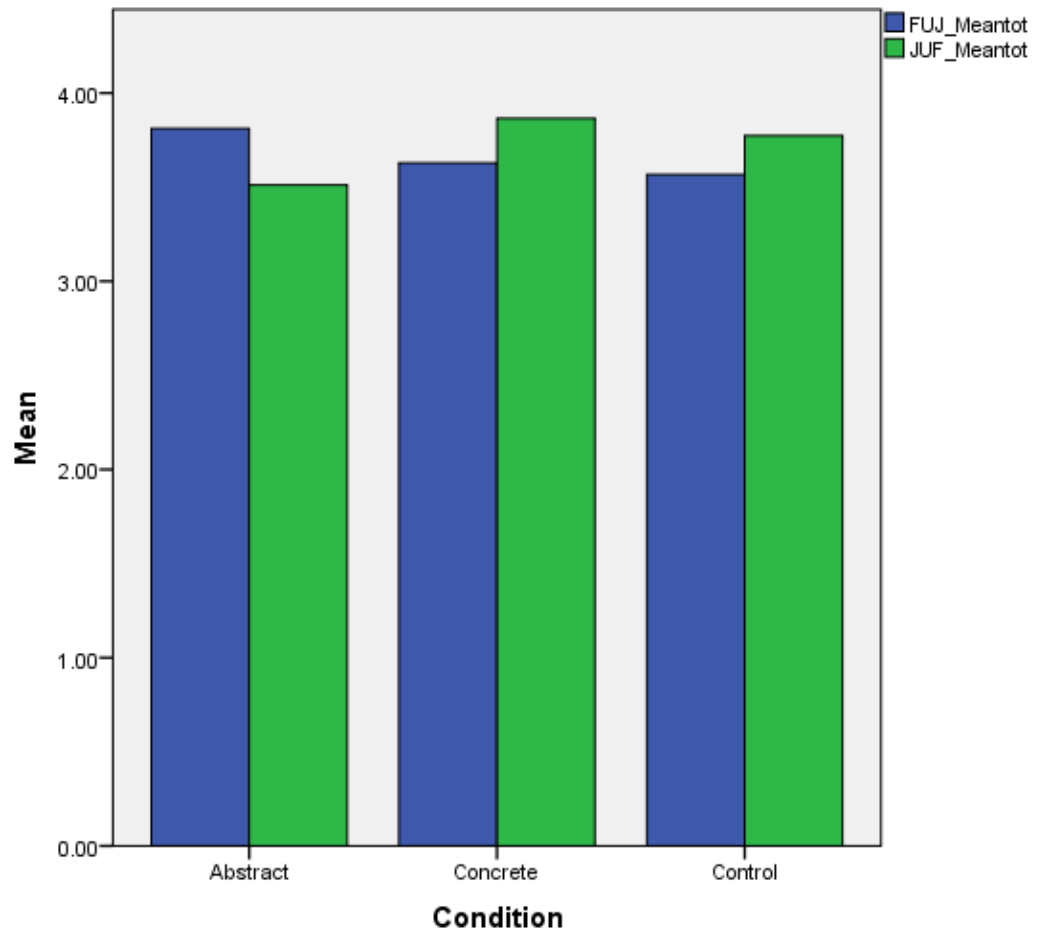


Figure 4: Study 4 Effect of Condition on Scenarios





## **APPENDICES**

### **APPENDIX A FAIRNESS SCALE**

(Revised Preference for Merit Principle Scale)

Please indicate the extent to which you agree or disagree with each of the following statements by circling the appropriate number on the scale below. Items are to be rated on a seven-point scale with the following anchors: (1) strongly disagree (2) moderately disagree (3) slightly disagree (4) neither agree nor disagree (5) slightly agree (6) moderately agree and (7) strongly agree.

1. In society, people who do a good job ought to rise to the top.
2. The effort a person puts into something ought to be reflected in the size of the reward he or she receives.
3. Members of a team ought to receive different rewards depending on the amount each person contributed.
4. Between two equally smart people, the one who is the harder worker ought to always be rewarded more.
5. If every person in a group has the same abilities, rewards ought to be given to the person who puts in the most effort.

## **APPENDIX B SOCIAL JUSTICE SCALE**

Please indicate the extent to which you agree or disagree with each of the following statements by circling the appropriate number on the scale below. Items are to be rated on a seven-point scale with the following anchors: (1) strongly disagree (2) moderately disagree (3) slightly disagree (4) neither agree nor disagree (5) slightly agree (6) moderately agree and (7) strongly agree.

1. It is our responsibility, not just a matter of personal preference, to provide for groups worse off in society.
2. It is important for those who are better off to help provide resources for the most vulnerable members of society.
3. In the healthiest societies, those at the top should feel responsible for improving the well-being of those at the bottom.
4. Increased economic equality is ultimately beneficial to everyone in society.
5. Helping those at the bottom of society will not discourage them from working harder.

## APPENDIX C MACARTHUR SCALE OF SUBJECTIVE SES

(Adler, Epel, Castellazzo & Ickovics, 2000)

**Think of this ladder as representing where people stand in the United States.**

At the **top** of the ladder are the people who are the best off – those who have the most money, the most education and the most respected jobs. At the **bottom** are the people who are the worst off – who have the least money, least education, and the least respected jobs or no job. The higher up you are on this ladder, the closer you are to the people at the very top; the lower you are, the closer you are to the people at the very bottom.

**Where would you place yourself on this ladder?**

Please place a large "X" on the rung where you think you stand at this time in your life, relative to other people in the United States.



Manipulation (Piff, et al., 2010)

“Now, please compare yourself to the people at the very bottom [top] of the ladder. These are people who are the worst [best] off—those who have the least [most] money, least [most] education, and the least [most] respected jobs. In particular, we’d like you to think about how you are different from these people in terms of your own income, educational history, and job status. Where would you place yourself on this ladder relative to these people at the very bottom [top]?”

- To strengthen the manipulation, participants are instructed to write about a hypothetical interaction with a person from the bottom or top of the ladder. Participants then indicate their own standing on the ladder; the bottom rung is coded as “1,” and the top rung is coded as “10.”

## **APPENDIX D SCENARIOS**

### Fairness Scenarios

1. In a city neighborhood, parents donate a great deal of money to their children's public school. Other public schools in the city with lower income families get no additional funds from parents.
2. Students at a respected college are admitted solely on the basis of their academic merit - a combination of students' grade point average and their SAT scores. Students who were not afforded the opportunity to have a high-quality education are unlikely to be admitted.
3. A popular company provides experience to students through valuable, unpaid summer internships. Students who must earn money over the summer are not at liberty to accept unpaid internships.
4. A public school encourages students to join others in field learning outside of the classroom for a small travel fee. Students from low-income families are not able to pay the fee and, thus, are left behind.
5. A university offers admission into an exclusive honors program, with smaller classes and greater networking opportunities, which results in increased tuition levels. Students from low-income families are not able to take advantage of these opportunities, regardless of how qualified they may be.

### Social Justice Scenarios

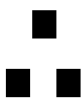
1. A very successful state-funded program has been established for special needs children who are also from underserved communities. Some parents with special needs children want to send their children to the successful program, but cannot because they are not from an under-served community.
2. Top colleges are engaging in major recruitment efforts at low income high schools to increase interest and applications from these students. Students at private high schools are now receiving less attention from top colleges.
3. Students at a major university are admitted based on a combination of factors, including, in particular, past hardship, and group membership. Some students with better academic records are not admitted to the university.
4. In a new urban housing development, rent does not increase for its low-income tenants when the market for real estate changes. The rest of the city's tenants must pay increased rent as market prices for real estate increase.
5. A highly valued job training program is offered to people from typically underserved areas of the city. People who may benefit from the program, but do not reside in those underserved areas, are not able to participate.

## APPENDIX E KIMCHI-PALMER FIGURES

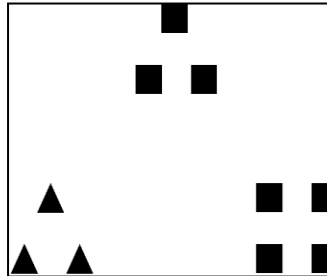
(Kimchi & Palmer, 1982) Stimuli (1-8) will be randomized in presentation

Please look at the target object.

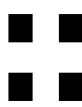
Is it more similar to the object on the left (z) or the right (/)?



Target




Shape 2



z

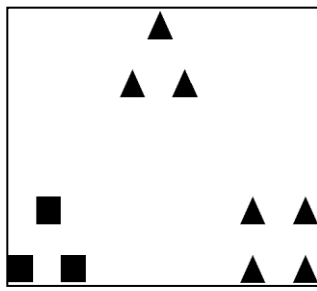
Press 'z'  
If this group is the  
most like the target



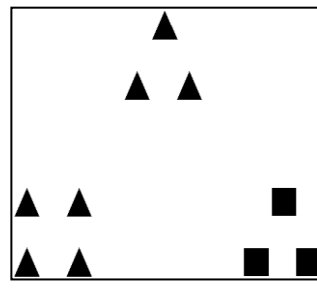
/

Press '/'  
If this group is the  
most like the target

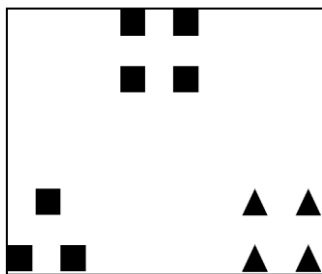
Press the spacebar to begin.



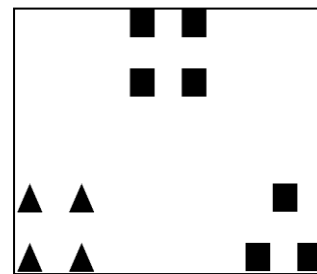
Shape 3



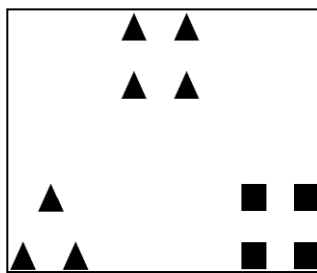
Shape 4



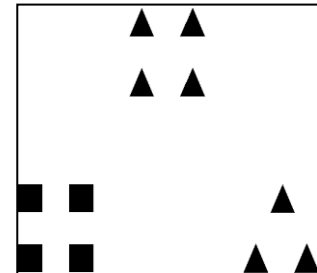
Shape 5



Shape 6



Shape 7



Shape 8

## APPENDIX F BEHAVIOR IDENTIFICATION FORM

(Vallacher & Wegner, 1989)

Any behavior can be described in many ways. For example, one person might describe a behavior as "writing a paper," while another person might describe the same behavior as "pushing keys on the keyboard." Yet another person might describe it as "expressing thoughts." This form focuses on your personal preferences for how a number of different behaviors should be described. Below you will find several behaviors listed. After each behavior will be two different ways in which the behavior might be identified.

For example:

1. Attending class
  - o sitting in a chair
  - o looking at a teacher

Your task is to choose the identification, a or b, that best describes the behavior for you. Simply place a checkmark next to the option you prefer. Be sure to respond to every item. Please mark only one alternative for each pair. Remember, mark the description that you personally believe is more appropriate for each pair.

Sweeping the floor

- Moving a broom
- Being clean\*

Attending a family reunion

- Going to a picnic
- Respecting tradition\*

Skydiving

- Jumping out of airplane
- Demonstrating one's daringness\*

Making an expensive purchase

- Swiping a credit card
- Doing something for one's pleasure\*

Staying home to study

- Reviewing one's notes
- Exerting self-discipline\*

Recycling

- Bagging paper, glass, and cans
- Caring for the environment\*

Teaching

- Talking to students
- Having authority\*

Meeting new people

- Small talk and shaking hands
- Enhancing one's social network\*

\* Higher level alternative is the second option, but should be randomized in presentation  
Total score is the sum of higher level alternative choices.

**APPENDIX G  
DEMOGRAPHIC SURVEY**

Religion

1. To what extent do you consider yourself a religious person?  
(Scale from 1 to 7; 1 = not at all religious, 7 = very religious)
  
2. How important a role does religion play in your life?  
(Scale from 1 to 7; 1 = not at all important, 7 = very important)

Politics

1. Where would you place yourself on this scale?  
(Scale from 1 to 7; 1 = strong democrat, 7 = strong republican)
  
2. Where would you place yourself on this scale?  
(Scale from 1 to 7; 1 = very liberal, 7 = very conservative)

Ethnicity

White – Black – Hispanic/Latino/a – Asian/Pacific Islander –  
American Indian/Alaskan Native – Multiethnic – Other

Age

Open-ended response

Gender

Male – Female – Prefer not to disclose

Educational Attainment

Please check the category that describes the level of education you have achieved.  
Credentials: 0 = did not complete high school, 1 = GED, 2 = high school diploma, 3 =  
postsecondary vocational certificate, 4 = associate's degree, 5 = bachelor's degree, 6 =  
master's degree, 7 = doctoral degree (Ph.D., JD., M.D.).

Income

Please check the category that tells us your approximate total family income for one  
typical calendar year. Consider all sources of income, including earnings, welfare cash  
assistance, child support alimonies, support from other members of your household who  
regularly contribute to your household, etc.

_____	Less than \$10,000	_____	\$10,001 to \$15,000	_____	\$15,001 to \$25,000
_____	\$25,001 to \$50,000	_____	\$50,001 to \$75,000	_____	\$75,001 to \$100,000
_____	\$100,001 to \$150,000	_____	\$150,001 to \$300,000		
_____	\$300,001 to \$750,000	_____	more than \$750,000.		

### Occupational Prestige

Currently, what is your main occupation or job title? Please be specific and include your industry. If you are currently unemployed, please indicate as such, and then include your previous occupation.

Open-ended response. Responses will be coded based on the following codes in the Hollingshead Four-Factor Index of Socioeconomic Status (Hollingshead, 1975).

- 9=higher executive, proprietor of large businesses, major professional
- 8=administrators, lesser professionals, proprietor of medium-sized business
- 7=smaller business owners, farm owners, managers, minor professionals
- 6=technicians, semi-professionals, small business owners (business valued at \$50,000-70,000),
- 5=clerical and sales workers, small farm and business owners (business valued at \$25,000-50,000),
- 4=smaller business owners (<\$25,000), skilled manual laborers, craftsmen, tenant farmers,
- 3=machine operators and semi-skilled workers,
- 2=unskilled workers,
- 1=farm laborers, menial service workers, students, housewives, (dependent on welfare, no regular occupation),
- 0=not applicable or unknown.



**APPENDIX H**  
**CONSTRUAL LEVEL TASK**

(Fujita, Trope, Liberman, & Levin-Sagi, 2006)

Abstract Directions:

Please read the following list of 20 words. Using the blank next to each word, please type an answer to the following question.

\_\_\_\_\_ is an example of what?

Concrete Directions:

Please read the following list of 20 words. Using the blank next to each word, please type an answer to the following question.

An example of \_\_\_\_\_ is what?

Neutral Directions:

Please read the following list of 20 words.

List of 20 words:

Singer  
King  
Pasta  
Car  
Soap  
Dog  
Book  
Family  
Soda  
Shoes  
Lamp  
Tree  
Sandwich  
Doctor  
Shark  
Hat  
Screwdriver  
Paint  
City  
Bag

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