

On the Role of Social Norms in the Expression of Self-Interest

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Abstract

The present studies are designed to enhance our understanding of the possible role that social norms play in the expression of self-interested or value-oriented thinking when evaluating social policies. The power of self-interest has long been afforded the front seat when explaining human behavior in a number of intellectual domains, but the direct effect(s) of self-interest on policy evaluations has been unclear. Previous work has examined the role of clarity and cognitive accessibility of self-interest in understanding how self-interest is expressed, and I introduce another variable that may play a role in the expression of self-interest: social norms. I hypothesized that the accessibility of social norms for how to think about a policy vary, inhibiting or facilitating the expression of self-interested thinking or value-oriented thinking. I also hypothesized that the perception of social norms has an independent effect on people's thoughts surrounding a policy, such that a norm of self-interest will cause people to behave in more self-interested ways, and a norm of values will cause people to behave in more value-oriented ways. Study 1 tested whether a perceived social norm causes people to express self-interest or value-oriented thinking in accordance with a manipulated norm. Results partially supported this hypothesis, with participants presenting more value-oriented comments when cues indicated value-oriented thinking was desirable, presenting more self-interested comments when cues indicated self-interested thinking was desirable, and participants rating themselves marginally more concerned about self-interest when the cue indicated self-interested thinking was desirable and participants believed they would share their answers with a fellow student. Study 2 tested the independent effects of cognitive priming and salience of social norms on participants' thoughts surrounding a fictitious policy proposal. Results were mixed, which was likely due to unexpected effects of the priming and cue manipulations in the chosen domain. Findings and implications are discussed, as is the existence of a norm of self-interest.

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Chapter 1

During any election cycle in the United States, political pundits and strategists pay much attention to determining what matters to the American public, assessing how these issues affect voting behaviors. More recently, there has been much discussion about the respective roles of people's self-interested concerns and their value-oriented concerns. For instance, in 1980 Ronald Reagan famously asked the American public if they were financially better off now than they were 4 years ago, implying that the preceding American Presidency was a failure in enriching the American public. Similarly, in 1992 there was much buzz about a sign that James Carville reportedly hung in the Clinton campaign office: "It's the economy, stupid." The United States was experiencing an economic recession, and then-candidate Bill Clinton was trying to beat incumbent President George H.W. Bush with a strategy emphasizing the economic suffering of the American people. Although it isn't clear whether that strategy is necessarily what helped Clinton win the election, the slogan is interesting because it implies that focusing on economic concerns is an obvious campaign strategy to win the hearts and minds of the American voter, one that trumps other concerns.

In contrast, the role of people's economic concerns was hotly debated during the 2004 presidential election, especially in contrast to "moral values." Exit polls indicated that 22% of Americans selected "moral values" as "the one issue that mattered the most in their voting decision," which was the most frequently selected category in that exit poll. This finding generated much excitement among political pundits and commentators, raising questions about whether people voted according to their value

systems but against their self-interest. Although the exit polls were criticized shortly afterward as having been methodologically flawed (see Langer & Cohen, 2005), the results were surprising enough to continue to generate speculation about what matters most to voters.

There has also been spirited debate in the academic world about the respective roles of self-interest and values in influencing people's policy evaluations. As I will discuss, some champion the role of self-interest as the primary motivator of most (if not all) human behavior, whereas some champion other motivating constructs like values as the primary driver of policy evaluations. The purpose of the current thesis research is to examine a variable that has not been extensively researched or understood in this debate: the role of social norms. More specifically, this thesis is designed to investigate the possibility that normative information biases people's policy evaluations. If it is more socially acceptable to think about a policy in self-interested terms, then people may be more likely to be affected by their self-interest when evaluating that policy because of normative concerns. In contrast, if normative cues indicate that the more appropriate manner in which to evaluate a policy is via value-oriented concerns, then people will more likely be affected by their values when considering that policy.

There are currently two major approaches to thinking about the respective roles of self-interest and values in the formation of policy attitudes: one that touts self-interest as the primary human motivator, and one that regards the effects of self-interest as more narrow in scope. I will describe these two major approaches and then describe a framework for thinking about the role that social norms might play in affecting the way

people think about policies.

The Primacy of Self-Interest in Explaining Human Behavior

The role of self-interest in motivating human behavior has long been discussed throughout our intellectual history, with many theories touting it as the primary motivation behind most human endeavors. According to basic principles of evolutionary fitness, the basis of human behavior is to garner advantage over the environment (including the social environment) in order to maximize odds of survival and the propagation of genes (Darwin, 1859; Dawkins, 1976). This basic tenet has inspired explanations for biological adaptations among animals, and social-scientific explanations for human social behavior.

For instance, evolutionary psychologists have examined how mate preferences differ between the two sexes as a function of maximizing odds of procreation and survival; women are said to prefer men who have the resources to take care of them during and after the gestational period, and men are said to prefer women who show the strongest potential to bear children (see Buss, 2004). Evolutionary psychologists have also examined the phenomenon of prosocial behaviors, which at first glance appear to be selfless. Although evolutionary principles state that most behaviors should be directed toward the propagation of one's own genes in successive generations, human cultures around the world seem to have incorporated norms of prosocial behaviors such that sacrificing one's well-being for the sake of others is expected. Evolutionary theorists in this area have discussed the possibility that prosocial behaviors are self-interested in that they reduce arousal, promote chances of kin and group succession,

enhance reciprocation, and afford the helper other opportunities that enhance helping (see Dovidio & Penner, 2001). Thus, even prosocial behaviors can be explained in terms of meeting self-interested concerns.

Additionally, self-interest plays a large role in neoclassical theory of microeconomics for explaining human behavior. According to neoclassical economics, the individual pursuit of tangible material rewards (or subjective rewards) is a major motivating force for people. Thus, we act primarily to maximize gains and to minimize losses (within certain real-life constraints, e.g., Becker, 1993). Economists have used this basic tenet to explain a number of different kinds of human behaviors, including discrimination against minorities, crime deterrence (see Becker, 1993), why teachers and sumo wrestlers cheat, and how parents decide to name their children (see Levitt & Dubner, 2005).

And, most relevant to the current proposal, the idea that people use their self-interest to guide their behavior has long been discussed in political science. The importance of self-interest in this field has been debated (Mansbridge, 1990; Sears & Funk, 1990a, 1990b, 1991). The role of self-interest as a primary motivator has a long and rich history in European and American political science, with many political theorists regarding the conflict between individual interests and collective needs as the most basic problem that a democracy faces (see Mansbridge, 1990). Moreover, many political scientists have adopted a rational choice model of political science based on self-interest: self-interest is regarded as the basis for human behavior, and voting is an avenue by which citizens express self-interested concerns. According to this model,

citizens vote for policies that materially help them and vote against policies that cause them material harm (Downs, 1957, as cited in Mansbridge, 1990).

Unfortunately for rational choice purists, the empirical evidence for the effect of self-interest on policy attitude formation is equivocal, leading to spirited debates about whether self-interest matters, after all. As this debate has unfolded, several studies have pointed to a new perspective on how and when self-interest affects people's policy attitudes (Chong, Citrin, & Conley, 2001; Sears & Funk, 1990a, 1990b; Young, Thomsen, Borgida, Sullivan, & Aldrich, 1991). This new perspective on self-interest holds that self-interest only affects people's evaluations of a policy when they understand how they are affected by the policy. If not, then people will rely on other, more accessible, psychological constructs to guide their evaluation of a political initiative.

Background on Symbolic Politics Approach

According to Sears and Funk (1990a, 1990b, 1991), self-interest is less influential in forming a person's evaluation of a policy than are relevant symbolic beliefs. *Symbolic beliefs* refer to affect-based, internalized social values that are formed early in life; examples include the belief in fairness, equality, self-sufficiency, nationalism, and, most often, party identification or political orientation (Eagly & Chaiken, 1993; Kinder & Sears, 1981; Sears, Lau, Tyler & Allen, 1979). Sears argues that these symbolic beliefs are learned via conditioning at a young age, and this learning does not include calculation of the costs and benefits of holding these attitudes; they are stable predispositions that are independent of material self-interest.

As an example, Sears argues that the common belief among Whites that Blacks do not work hard enough is a symbolic belief. This belief embodies White indignation against Blacks because of the perception that Blacks want to have material goods handed to them without any work on their part, in direct violation of the Protestant Work Ethic. Sears and Funk (1990b) have presented evidence that, with a few noted exceptions, symbolic beliefs about Blacks (i.e., “symbolic racism”) are more strongly predictive of a range of attitudes and behaviors in which self-interest has had little effect.

For example, in the racially charged 1972 Los Angeles mayoral election, Kinder and Sears (1981) found that personal concerns about racial threats to “the good life” of Whites had little effect on candidate preference; respondents’ concerns about neighborhood and school desegregation, Black violence, and economic competition were weakly related to candidate preference. Rather, White voters’ symbolically racist beliefs about Blacks (e.g., the belief that Black welfare recipients could get along if they tried, the belief that Blacks have gotten more than they deserve) were much stronger predictors of their candidate choice, regardless of whether they would be personally affected by the candidate’s policies.

Similarly, Sears, Lau, Tyler and Allen (1979) showed that Whites’ attitudes toward bussing Black students into predominantly White schools were more strongly influenced by feelings about race than whether they lived in a district in which bussing would occur. In other words, participants’ symbolically racist beliefs and general agreement with segregation were stronger predictors of attitudes about bussing than

whether the participant would be personally affected by the bussing policy.

Findings like these provide the base for “symbolic politics” research, which investigates whether attitudes toward social policies are better predicted by self-interest or symbolic beliefs. As Sears and Funk (1990a, 1990b, 1991) review, further research has revealed symbolic beliefs to be a significant predictor of a variety of attitudes towards social policies, independent of the effects of self-interest. For example, political ideology (liberalism vs. conservatism) is a stronger predictor of support for government-provided health insurance or privatized health care, even among those who do not have health care (Sears & Funk, 1990b). It is also a stronger predictor of a policy that would guarantee jobs for everyone, even among those who are personally affected by unemployment (Sears & Funk, 1990b).

Why isn't self-interest as predictive of policy attitudes as classical political theories suggest? Sears and Funk (1990a, 1990b, 1991) argue that self-interest does not play a role in most people's political behavior because politics are distal for most people; in order for people to vote in accordance with their self-interest, they argue, they must first be able to recognize their stakes in the particular issue and then vote in accordance with their self-interest. For most people, however, the broader political arena tends to obfuscate matters in such a way that policy outcomes are less clear and people are less able to discern how they are materially affected by various policies. In these (arguably, many) cases, Sears and Funk (1990a, 1990b, 1991) suggest that people use their symbolic beliefs about related issues to guide their evaluations of relevant policies.

The Conditions in Which Self-interest is Important

Although symbolic beliefs play a more influential role in policy attitudes when the stakes are unclear, research in symbolic politics reveals that self-interest has a powerful effect when the costs of the outcome are clear. Because people have the capacity to draw the link between their self-interest and the policy in these situations, their attitudes toward the policy are strongly affected by their self-interest. In particular, policies that affect voters' pocketbooks have shown clear self-interest effects, presumably because voters can easily understand how they are financially affected by those policies.

For instance, Sears and Funk (1990b) review previous work in which public employees were more strongly opposed to proposed tax cuts than employees of the private sector. The public employees likely understood how tax cuts could affect their salaries and whether they would have jobs, and these concerns likely drove their negative evaluation of the tax cut policies. Because the costs of the policy were clear and substantial to public employees, their self-interest played a much stronger role in their attitudes toward that policy.

Taxation policies have obvious financial effects on voters' pocketbooks and thus yield significant, consistent, and strong self-interest effects. As Sears and Funk (1990a, 1990b, 1991) review, beneficiaries of proposed tax cuts are much more supportive of the proposed policies than those who would not benefit; conversely, proposals for tax increases are strongly opposed by those who would suffer the most as a result. Again, Sears and Funk (1990a, 1990b, 1991) argue that because the monetary consequences of

a tax proposal are obvious to voters, their self-interest plays a larger role in their attitudes toward that policy than it would if the costs of the policy were not clear.

Thus, the evidence in this area of research supports the perspective that self-interest can only guide policy evaluations when people can connect the policy to their self-interested concerns; when the consequences of the policy are clear and/or substantial to voters. Otherwise, voters use their symbolic beliefs, or their values, as guides to determine how to perceive the policy. However, if voters do understand the material effects of policies, as in the case with policies that affect the pocketbook like taxation policies, individuals will evaluate that policy in accord with their self-interest.

Additional research has explored whether people's self-interest can be enhanced by making it more cognitively accessible. In this line of research, researchers have primed participants to consider their self-interest before exposing them to a policy and having participants evaluate that policy. Researchers hypothesized that priming participants with their self-interest would make their self-interested concerns more readily available when evaluating subsequent policies, and increase the influence of their self-interest on a policy evaluation. Their hypotheses were supported.

For example, Young, Thompsen, Borgida, Sullivan, and Aldrich, (1991) primed participants by exposing them to a conversation between two confederates about taxation. In this conversation, one confederate opined that the best way to evaluate a government program is to consider how it affects your self-interest, whereas his conversation partner argued that there were other matters to consider. In an ostensibly unrelated experiment, participants then indicated their support for hypothetical

legislative proposals. The researchers found that participants who had been exposed to the conversation were more strongly influenced by self-interest concerns than those who had not been exposed to that conversation, and concluded that construct accessibility of self-interest facilitated self-interest effects.

Similarly, Chong, Citrin, and Conley (2001) surveyed 1,067 adults and asked them to consider three policies that differed in how easily participants could calculate their objective stakes in the issue, and the objective size of the beneficiary group (Social Security reform, home mortgage taxes, and healthcare for unmarried partners or employees). However, before asking participants to indicate their support for the measures, Chong et al. (2001) asked some participants how they and their families would be affected by the measure, and asked other participants how society as a whole would be affected by the measure. Again, the researchers argued they were facilitating the cognitive accessibility of self-interest (and of sociotropic values), and hypothesized that self-interest would be more strongly predictive of policy support when the benefiting group could identify themselves and calculate their stakes, and when participants were primed to think of the policy in self-interested terms. Their findings supported these hypotheses and, once again, the researchers concluded that facilitating cognitive accessibility to self-interest concerns strengthens the effect of self-interest on policy evaluation.

Young et al. (1991) and Chong, Citrin, and Conley (2001) argued that their research results support a social cognition approach to self-interest. By activating participants' self-interest reasoning processes via priming, they argue that participants

were better able to evaluate how they would be affected by the proposed policies, and evaluated the policies accordingly. However, this effect may not have been purely cognitive, but may have reflected social concerns not simply a cognitive process, which I will discuss later.

In summary, researchers in this area argue that self-interest concerns don't exert as strong an influence over policy evaluations as relevant symbolic beliefs because most of the time most people don't connect their self-interest to various policies. In these cases, individuals use their related symbolic beliefs to guide their policy evaluations. But in the case of "pocketbook" issues like taxation, people do seem to understand how they are materially affected, so their self-interest plays a strong role in their evaluation of these policies. Moreover, it appears that people's self-interest can be activated via priming, and that these processes can bias people's perceptions of a policy they evaluate shortly after priming. The interpretation of these priming effects is questionable, however, as I address later in this paper.

Critiques of the Symbolic Politics Approach

It is worth noting that this perspective on self-interest is not without its critics. Although many of Sears' arguments and evidence are compelling, some researchers have disputed his findings and re-stated arguments for the importance of self-interest as a primary motivating factor. In particular, Crano (1997a, 1997b) has challenged the basic methodology behind many of Sears' findings, arguing that the best measure of self-interest was not used. Crano (1997a, 1997b) argued that the lack of relationship between self-interest and attitudes toward bussing may be due to a flawed measure of

self-interest; Sears operationalized self-interest objectively, categorizing all White parents who had children in an affected school district as self-interested, and all who did not have children in such a school district as not self-interested. He then entered this variable as a predictor alongside symbolic beliefs in a regression model, and found that self-interest did not emerge as a significant predictor.

The problem with this operationalization and these analyses, Crano pointed out, was that all affected White parents might not necessarily feel the same way about bussing. If Sears had measured self-interest subjectively, by asking participants to indicate their assessment of how much a policy would affect them personally (i.e., “How much does bussing affect you?”), Crano argued that Sears may have found stronger self-interest effects .

Moreover, Crano and his colleagues (Crano, 1997a; Lehman & Crano, 2002; Sivacek & Crano, 1982) argue that self-interest still acts a primary motivator in that it increases the likelihood that someone will act to serve their self-interest. Thus, those who are directly affected by a policy are more likely to act on their self-interested attitudes. In a variety of studies, they presented evidence showing that self-interest significantly moderates the relationship between attitudes and related behaviors. For example, Sivacek and Crano (1982) showed that young adults who would actually be affected by a change in the legal drinking age were much more likely to sign up for activism opposing the policy. Similarly, among college students there was a stronger correlation between attitudes toward comprehensive senior examinations and willingness to engage in various activities expressing opposition to the examinations

when students believed that they would be affected by the proposed comprehensive exams.

Using the same national dataset as Sears, Crano (1997a) showed that the relationship between bussing attitudes and intention to vote for a politician with congruent bussing attitudes was stronger among those who would be personally affected by bussing. In other words, when people were affected by a bussing policy because their own children would be bussed or would attend a school to which others would be bussed, they were more likely to vote for a candidate whose views matched their own attitudes toward bussing.

Thus, rather than employ a main effects analysis in which the main effect of self-interest is examined (e.g., Sears), Crano examined self-interest as a moderator variable to show that self-interest moderates the relationship between attitudes and behaviors. As a moderator, Crano found a stronger relationship between attitudes and behaviors for highly vested individuals (i.e., individuals who are personally affected by a policy) across a range of policy domains (e.g., changing the legal drinking age, bussing). Hence, self-interest may not have a direct effect on policy evaluation such that all who are self-interested uniformly evaluate a policy in self-interested ways; it may instead aid self-interested individuals to behave in ways that are more consistent with their attitudes. Individuals who are affected by a policy may show a stronger relationship between their attitudes toward their policy and their behaviors relevant to that policy (e.g., voting, campaigning).

More recently, Darke and Chaiken (2005) have provided additional evidence

that self-interest may be more important than Sears suggests. In four separate experimental studies, Darke and Chaiken (2005) showed that self-interest affected the direction of policy attitudes such that those who would suffer from a policy were opposed to that policy. They also showed that perceptions of personal costs mediated the relationship between self-interest and policy attitudes, and that self-interested individuals devoted more cognitive resources to the policies. Thus, in stark contrast to the claims made by symbolic politics researchers, Darke and Chaiken (2005) provided compelling evidence that self-interest plays a significant role in policy evaluations, affecting both the valence of policy attitudes and increasing systematic processing of policy messages.

In addition to evidence that self-interest acts as a biasing construct, there is reason to believe that people's values are not always as accessible, strong, and effective on behavior as the symbolic politics approach would suggest. Research conducted by Maio, Bernard, and Olson indicates that values often operate as "truisms" because they are widely shared, endorsed as important, but rarely questioned (Bernard, Maio, & Olson, 2003a; Bernard, Maio, & Olson, 2003b; Maio & Olson, 1998; Maio, Olsen, Allen, & Bernard, 2001). These researchers have demonstrated that many values lack cognitive support and are subject to change unless participants are asked to provide cognitive reasons for their values. Moreover, Maio, Olsen, Allen and Bernard (2001) demonstrated that the relationship between values and behavior can be strengthened by asking participants to consider reasons for their values; when participants considered cognitive reasons for egalitarianism, they were much more likely to behave in

egalitarian ways (compared to those who had simply been primed to consider egalitarianism).

In sum, although there is strong evidence that the effects of self-interest are narrowly constrained to pocketbook issues (Sears & Funk, 1990a, 1990b, 1991), or when self-interest is cognitively accessible (Chong, Citrin, Conley, 2001; Young, et al., 1991), there is equally compelling evidence that self-interest plays a stronger role in more policy evaluations than the symbolic politics approach suggests. The evidence presented by Darke and Chaiken (2005) suggests that people who are affected by a policy pay more attention to relevant information surrounding the policy, thinking about the policy more systematically. Thus, it could be the case that once people decide that they are affected by a policy, they pay more attention to the debate surrounding the policy and are affected by additional information provided by those debates. In the next segment, I argue that social norms may influence self-interested policy evaluations, providing cues for the appropriate ways to think about the policy.

A New Framework: The Role of Social Norms

It could be the case that a third psychological construct, the perception of social norms, affects the expression of self-interested and/or value-oriented thinking. Social norms can have a powerful effect on human social behavior, inducing people to behave in accord with a perceived standard of social behavior, whether they agree with the standard or not. Norms have been hypothesized to affect behavior in two ways (Cialdini, Reno, & Kallgren, 1990).

First, *descriptive norms* describe what is; that is, they indicate what others are

doing. Descriptive norms have the power to induce a behavior by providing information about what is effective (i.e., informational social influence). If an individual believes that others are behaving in a certain way, s/he may conclude that it is the most effective behavior in the given situation, and behave in the same way. Second, *injunctive norms* describe what ought to be. Injunctive norms indicate which behaviors would curry social favor and which would result in social penalties (i.e., normative social influence). In this way, injunctive norms induce behaviors by leading the actor to believe that s/he may be penalized for not following the norm (see Cialdini, Reno, & Kallgren, 1990). Thus, social norms affect people's behavior by affecting their perception of what might be effective and what might be normative. In either case, the actor does not necessarily have to personally accept the norm, but may be compelled to behave in accordance with it in order to be effective or to avoid being socially punished.

Thus, there are two proposed psychological processes by which conformity to norms is achieved: one in which the individual wants to be effective, and one in which the individual wants to avoid social harm. Both of these are consonant with self-presentational views of conformity (Baumeister, 1982; Jones & Pittman, 1982). According to impression management theory, people are motivated to strategically present information about themselves to others, whether they are conscious of these motives or not. As a result, they change their behaviors if they have an audience, and change their behavior in accord with their goals with a particular audience.

The goals of such strategic self-presentation are theorized to be twofold: to please the audience and to promote liking, or to promote a desired view of the self

(Baumeister, 1982). Inducing descriptive norms about what others are doing may promote conformity to that norm because people want to present themselves as effective, competent people (self-promotion goal; Jones & Pittman, 1982), whereas inducing injunctive norms may promote conformity to the norm because people want to continue to be liked (ingratiation goal; Jones & Pittman, 1982).

Descriptive norms, injunctive norms, and self-presentational concerns may influence whether people's self-interest or values system affect their policy evaluations. Once an individual understands that s/he is vested in the outcome of a particular policy, s/he may dedicate more cognitive resources to evaluating that policy, attending to more pieces of information than someone who is not vested, and possibly interpreting the information in a biased manner (Darke & Chaiken, 2005). I propose that one type of information s/he may attend to, or be influenced by, are normative cues about the appropriate way to consider the policy. Based on the perceptions of these norms, people may be compelled to evaluate a policy in self-interested or value-oriented terms.

If social cues indicate that the descriptive norm for evaluating a policy is self-interested and that most other people are evaluating the policy in terms of their self-interest, then the perceiver may conclude that self-interested thinking is the optimal way of evaluating the policy. If social cues indicate that the more normatively acceptable way to evaluate the policy is in self-interested terms (the injunctive norm), then the perceiver may be more likely to evaluate the policy as such. Similarly, perceivers may be more likely to regard a policy in value-oriented terms because they have concluded that others are evaluating the policy in terms of their values (descriptive norm) or that

others feel that people should evaluate the policy with respect to their values (injunctive norm).

Although the effect of social norms on policy evaluations has been addressed in past research, the current treatment of social norms runs at odds with my own perspective, and has even been somewhat misunderstood. In this next section, I will review the two ways in which social norms have been addressed in the literature, and will highlight weaknesses in the data that have been presented, and how they compare to my perspective.

The Current Role of Social Norms in the Literature

The role of social norms in affecting policy evaluations has been addressed in the literature in two ways. First, it has been inadvertently addressed by researchers investigating the effects of cognitive priming on policy evaluations. As previously described, Young et al. (1991) and Chong, Citrin, and Conley (2001) assert that cognitive priming can facilitate accessibility of self-interest concerns and therefore enhance self-interested thinking; however, their studies may, in fact, illustrate how perceived social norms affect whether self-interest or values more strongly predict policy attitudes.

Second, Miller and his colleagues (Miller & Ratner, 1998; Miller, 1999; Ratner & Miller, 2001) have asserted there is a prevailing norm in our culture that dictates people do, and should, behave in accordance with their self-interest. Miller has presented evidence supporting his arguments that people believe self-interested thinking is desirable and normative, and so behave in self-interested ways.

Social Norms Disguised as Cognitive Accessibility

The studies conducted by Young, et al. (1991) and Chong, Citrin, and Conley (2001) were designed to provide evidence that priming participants' self-interest construct facilitates accessibility to self-interested concerns. This, in turn, enables participants to evaluate policies in terms of their self-interest, when they would otherwise not be as strongly affected by it. However, these studies may provide evidence that the salience of social norms about political thinking can affect policy attitudes, and do not solely demonstrate the effects of cognitive priming per se. At the very least, these two accounts of construct accessibility of self-interest confound accessibility with normative information.

Recall that Young et al. (1991) exposed participants to a confederate conversation in order to prime participants' self-interest constructs. In doing so, the researchers may have established an injunctive norm for policy evaluations; they may have cued participants to think that self-interested thinking was sanctioned. Consider the process by which the priming occurred.

Participants were told that the room in which their study was being conducted was currently being used, and would they mind participating in an additional short study until the room was ready? After participants agreed, they listened to three tape-recorded dialogues and rated the conversation on a number of different attributes. In the critical conversation, participants listened to a conversation in which two men discussed how much of their pay was taken out for taxes. Man A then argued that the best way to evaluate government programs is to consider how one's individual needs

and interests were served by those programs; he then stated that he did not see the benefit to being taxed so heavily. Man B then countered that there might be other considerations beyond one's immediate self-interests, but then finished by saying he would have to think more about how various policies affected him personally.

At minimum, this conversation established a descriptive norm for policy evaluations, and may even have established an injunctive norm. Man A established a descriptive norm of self-interest by stating that self-interest was his preferred mode of policy evaluation, and apparently persuaded Man B to do the same. Thus, the conversation established that these two men think of policies in terms of self-interest. Man A may also have established an injunctive norm of self-interest by stating that self-interested evaluations are the best evaluations, and the apparent persuasion of Man B may have led participants to conclude the same. Thus, the stronger relationship between participants' self-interest and their subsequent policy evaluations may have been due to the perception that self-interested thinking was both the common and desired mode of thinking, and not necessarily simply because participants' self-interest was made more cognitively accessible. Although participants in this study did not indicate that they were persuaded by the confederates' arguments, there is still reason to believe that the priming manipulation affected a nonconscious perception of what was normatively acceptable among participants.

Similarly, Chong, Citrin and Conley (2001) may have established a descriptive norm in their study. In their study, the researchers described three proposed policies to participants regarding Social Security reform, mortgage taxation, and healthcare

benefits for unmarried domestic partners, and assigned them to one of three priming conditions. In the no prime condition, participants were simply asked how much they favored the policies. In the self-interest prime condition, before the researchers asked participants to evaluate the policy, they asked them how each of the three policies affected them and their families financially. In the value prime condition, the researchers asked how the Social Security reform policy would affect future generations; either how the mortgage taxation policy would affect the economy or how fair the taxation policy was; and for the healthcare policy, asked participants to agree or disagree with a liberal or conservative interpretation of the policy (“Do you agree or disagree with the idea that this kind of policy would encourage a lack of respect for marriage?” or “Do you agree or disagree that this kind of policy would reduce prejudice against people who choose alternative lifestyles?”).

By preceding the critical policy evaluation question with these types of “primes,” the researchers may have activated social normative information. It is possible that the researchers’ questions suggested that self-interested or value-oriented thinking were the common way to evaluate those policies; if self-interested concerns and value-laden reasoning were irrelevant to the policy consideration, then the researchers would not have mentioned them. Thus, in accordance with the Gricean maxim of relevance (1975), respondents may have concluded that self-interested or value-oriented thinking was the relevant way of considering the social policies mentioned by the researchers and may have thought about those policies in accordance with the perceived norm. As such, the moderating effect that the type of prime had on

policy evaluations may have been due to participants conforming to a social standard of policy evaluation, and not because self-interest processes and value-oriented processes were facilitated. This type of item-context effect has been demonstrated by researchers of survey methodology (see Schwartz, 1999).

Other work has also demonstrated that the predictive utility of individuals' values can be enhanced by providing normative information. Wolpert and Gimpel (1998) found that gun owners, who are distinctly aware of how gun control policies affect them, are strongly motivated by self-interest concerns when evaluating gun control policies. Using several public opinion polls during the 1980s and 1990s, the researchers found that gun ownership is a consistently strong predictor of gun control opposition. However, they also found that the effect of political ideology (which they argued was a symbolic factor in the same vein as Sears' symbolic beliefs) strongly varied across different time points, being much more powerful at some times than others. Tracking those time points, Wolpert and Gimpel (1998) surmised that the effect of political ideology may have been enhanced by current events emphasizing political party affiliation. For instance, party identification was strongly predictive in October of 1988, when Congress was considering passing the Brady Bill; partisan media coverage during that time may have helped respondents be more aware of their party's stance on gun control, which may have guided their own evaluations of gun control¹.

¹ It is worthy of note that this analysis is consistent with Maio and colleagues' argument that values act as truisms. During the times that party identification was strongly predictive, the media may have provided constituents with a sense for the rationale of using values to predict gun control policies.

However, respondents' party identification may not have had an exaggerated effect solely for cognitive reasons, either because of cognitive accessibility or enhanced cognitive reasoning. Although media coverage of the Brady Bill may have simply biased information processing in the direction of party identification, it is also likely that it activated a norm for constituents for how to think about the policy. When people heard about what key Republican or Democratic figures thought of the proposed policy, they may have felt that they should think about that policy in the same way because of their party affiliation.

Other work in political psychology supports the idea that political party identification can shape people's policy attitudes and other political values. Cohen (2003), for instance, showed that when confronted with a policy that runs contrary to core political values, people are still likely to support that policy when they believe their party endorses it. This may be the effect of a descriptive norm; participants may have concluded that their party's endorsement was the optimal way to evaluate the policy. Similarly, research by Goren (2005; Goren, Federico, & Kittilson, 2009) also supports the idea that political party identification can shape people's values (and not vice versa); that is, people may be forming their political values (e.g., the role of government in life) on the basis of what they think their party and attractive political pundits think, rather than choosing their party based on their existing political values. However, the psychological mechanism by which this occurs is not completely understood.

Thus, although these findings have been interpreted as evidence that cognitive accessibility facilitates stronger relationships between self-interest and policy attitudes,

and between value systems and policy attitudes, it is equally plausible that these studies are evidence of my hypothesis that it is the activation of normative concerns that can affect the expression of self-interest or values. The method by which researchers chose to prime participants did not establish what, exactly, was activated: a mode of thinking, or a belief about the normative acceptability of that mode of thinking.

Background on the Norm of Self-Interest

The second way in which norms have been discussed with respect to policy evaluations lies in the work of Miller and his colleagues (Miller, 1999; Miller & Ratner, 1998; Ratner & Miller, 2001). According to this work, there is a pervasive belief in society that self-interest significantly affects the way people think, and that this belief results in a “self-fulfilling prophecy” (Miller, 1999, p. 1053) causing people to pursue self-interested goals. In other words, self-interest doesn’t act as a primary motivation, but because of the primacy that self-interest is accorded in our society, people *believe* that self-interest strongly affects people’s behaviors. And because people believe it is the driving force behind so much behavior, it subsequently becomes one.

In this way, Miller and his colleagues (Miller, 1999; Ratner & Miller, 2001) argue that self-interest acts as both a descriptive and injunctive norm. According to Miller and his colleagues (Miller, 1999; Ratner & Miller, 2001), people behave in self-interested ways both because they believe others are behaving selfishly (i.e., a descriptive norm), and because they believe they ought to (i.e., an injunctive norm).

To demonstrate that self-interest operates as a descriptive norm, Miller and Ratner (1998) provide evidence showing that participants consistently believe that

others are motivated by incentives, and even overestimate the power of self-interest as a behavioral factor in various domains. Participants in their studies indicated that monetary incentives to donate blood would be more attractive than empirical research indicates, and that group membership would be a stronger predictor in determining group members' attitudes toward policies affecting that group (e.g., believing women are more supportive of insurance coverage for abortion procedures). Thus, people seem to think that others are strongly motivated by selfish concerns (monetary incentives and personal stakes).

Ratner and Miller (2001) have also presented compelling evidence that people believe that selfish behavior is socially sanctioned, that self-interest may act as an injunctive norm. Their studies showed that although men and women were equally supportive of a fictitious policy to provide insurance coverage for abortion procedures, men reported feeling less comfortable acting on those beliefs by signing a petition, attending a meeting, or telling their friends. This discomfort was most strongly predicted by men's feelings that their behaviors would elicit confusion in others, presumably because they had no stake in the issue. Moreover, Ratner and Miller (2001) also showed that this perception was warranted; participants in a separate study indicated they would be more surprised and angry at the presence of a man at a meeting for the initiative than they would by a woman attending the meeting. Miller and Ratner (2001) argue that people who are not vested in an issue (because they are not group members or because they don't hold a stake in the outcome) are less likely to act on behalf of that issue because of a perception that that behavior violates the injunctive

norm of self-interest.

Based on this evidence, Miller and his colleagues argue that self-interest may not be a primary motivating factor on its own, that it is not in and of itself a main reason for action. They argue instead that the effect of self-interest on people's behaviors may be mediated by the perception that it is popular (i.e., that it is a descriptive norm) and that people will face social sanctions should they behave in ways that do not maximize their interests (i.e., that they are violating an injunctive norm). However, although their evidence is provocative, it is important to note some explanatory weaknesses in their argument and evidence, especially as compared to the model I have presented wherein people's policy evaluations are affected by concerns about perceived social norms that vary with respect to whether self-interest is desirable.

Limitations of the Norm of Self-Interest. Earlier I proposed that people's policy evaluations are affected by their perception of what is normatively sanctioned. I argued that people's accounts for their policy evaluations will vary as a function of what is normatively accepted as long as the norms are salient and clear. As I have discussed, the evidence presented by Chong, Citrin, and Conley (2001), Young, et al., (1991), and Wolpert and Gimpel (1998) may support this contention. But, as described by Ratner and Miller (2001), the so-called "norm" of self-interest poses significant problems for my model if it is valid.

According to Miller and his colleagues (Miller, 1999; Miller & Ratner, 1998; Ratner & Miller, 2001), people will usually (if not always) present self-interested reasoning behind their behaviors and their thoughts because they believe self-interest is

the preferred mode of thinking for everyone, including themselves. However, there are a few reasons to question the validity of this argument. I believe that people overestimate the power of self-interest over everyone's behavior; self-interest has long been regarded as the all important motivating factor, so it is easy to see how people could easily conclude that self-interest affects most behavior, especially in the absence of other explanations. Additionally, the evidence that Miller and colleagues present in support of this argument (including weaknesses in both their secondary and primary data) and other evidence that suggests selfishness is not as socially valued as they contend.

First, Miller and Ratner (1998) argue that there is a descriptive norm of self-interest. And although they show that participants consistently overestimate the power of group membership and financial incentives for other people, they fail to demonstrate that this perceived descriptive norm of self-interest subsequently causes people to behave selfishly. In other words, although people believe that others are motivated by self-interest, Miller and Ratner do not provide evidence that this belief spurs people to behave selfishly. As I stated earlier, it is easy to conclude that everyone is self-interested given the primacy that self-interest has been awarded in explaining human behavior, but there is no evidence that shows that this information causes people to behave in self-interested ways.

Second, Ratner and Miller (2001) argue that there is an injunctive norm of self-interest such that people feel compelled to act on behalf of their self-interest. However, the evidence that they present does not support this claim. They build their case for an

injunctive norm of self-interest by presenting secondary evidence that people explain their own behaviors in selfish terms and by presenting primary evidence that people fear social penalties for engaging in social action that is not patently selfish. Ratner and Miller (2001) indicate that people perceive social consequences for pursuing social goals that do not benefit the groups to which they belong, that people report they would be more suspicious and angry at someone who is engaging in social action that does not benefit his/her group, and that these social penalties prevent people from engaging in social action that does not obviously benefit their group interests.

However, neither their primary nor secondary evidence demonstrates that people behave selfishly because of a perceived norm. Their primary evidence simply supports the idea that people *don't* act for or against a policy in which they are not vested. Put another way, their evidence supports that idea that it is socially acceptable for people who are tangibly affected by a policy to engage in social action related to that policy, but that it is not the case for someone who is not tangibly affected. For example, if a community debated whether to ban smoking indoors, it would make sense for people who live in that community to engage in public debate and to attempt to persuade their neighbors to their opinion. It would not, however, make social sense for someone who lives 500 miles away to attend and participate in the same public debates. Thus, their evidence simply supports the idea that it is more socially acceptable for people who are vested in an issue to partake in social action than it is for people who are not vested.

It is worth mentioning that this perspective provides a social-normative explanation for the findings reported by Crano and his colleagues (Crano, 1997a;

Lehman & Crano, 2002; Sivacek & Crano, 1982). Recall that Crano and his colleagues found that self-interest significantly moderates the relationship between attitudes and behavior, such that those who are self-interested (or vested) in the outcome of a policy demonstrate stronger relationships between their policy attitudes and behaviors directed toward that policy. Ratner and Miller's (2001) evidence suggests that this stronger relationship between attitudes and behavior among vested individuals could be due to the perception that it is not socially acceptable to engage in social action if you are not vested.

I do not disagree with the idea that people feel wary about becoming involved in social activism for a policy that doesn't personally affect them. I am concerned with what happens once people *are* vested. After people ascertain that they are affected by a policy, what kinds of reasoning do they present for their particular position – self-interested or value-oriented – and for what social reasons? And, do these social reasons bias their policy evaluations? Contrary to Miller and colleagues, I disagree that there is an injunctive “norm” of self-interest that compels people to offer self-interested accounts for their thoughts and behaviors because they feel they ought to. Instead, I suggest that the normative standard that is made salient in a given context is the one that will be held, and that it isn't always a norm of self-interest. Rather, it depends on what is made accessible and whether what is made accessible conveys normative information.

A third major weakness in Ratner and Miller's (2001) arguments lies in the secondary evidence that they present to make the case that people feel compelled to

offer self-interested accounts for their behavior. In their introduction, Ratner and Miller (2001) discuss some of the reasons that Whites gave for opposing school bussing (Sears & Funk, 1990) as evidence of a norm of self-interest in expressing political attitudes. As they demonstrate, White respondents primarily gave utilitarian reasons for opposing school bussing, like expressing concern for their children's safety, diminished property value, and inconvenience to their children. Ratner and Miller (2001) argued that these White respondents presented selfish reasons for opposing bussing because they felt they ought to, out of a fear of appearing deviant for not presenting selfish reasons.

But another reason that Whites may have provided primarily utilitarian reasons for opposing school bussing may have been to avoid the appearance of racial prejudice. It is very likely that respondents actually opposed school bussing for less savory reasons, such as not wanting their children to attend school with black children, but did not want to openly discuss those reasons. Thus, they may have openly discussed utilitarian reasons like inconvenience and property values because they did not want to confess reasons that would have betrayed racist feelings, not because they felt compelled to make self-interested arguments, as Ratner and Miller (2001) reason. In this way, Whites may have been presenting self-interested rationale to mask their true concerns surrounding race-related anxiety.

Ratner and Miller (2001) also cite the work of Wuthnow (1991), in which respondents provide selfish reasons for their prosocial behaviors. Wuthnow's (1991) respondents provided self-interested reasons for volunteering, like "It got me out of the house," and "I liked the other volunteers" (Ratner & Miller, p. 6). Ratner and Miller

(2001) argue this is evidence for an injunctive norm of self-interest, but it could also be the case that respondents didn't want to appear as though they were bragging about their personal moral superiority over others.

Additionally, needing to present self-interested explanations for prosocial behaviors may be unique to explaining prosocial behaviors. Because prosocial behaviors run at odds with perceptions of evolutionary theory, there has been much discussion about self-interested motives for helping others (Dovidio & Penner, 2001; Omoto & Snyder, 1995). Participants in Miller and Ratner's (2001) study may not be able to justify (to themselves and others) engaging in social action that doesn't obviously benefit their interests because of the widespread belief that people are selfish. The widespread understanding that people are selfishly motivated stands at direct odds with prosocial behaviors, so individuals who engage in prosocial behaviors may engage in post hoc rationalization that includes selfish motivations.

More recent work by Miller's colleagues supports the idea that people must account for prosocial behaviors, in particular, in self-interested terms. Holmes, Miller, and Lerner (2002) found that people were significantly less likely to donate to a charity unless the donation could be rationalized in terms of self-interest (e.g., by getting a bargain price). Thus, although some people may be compelled to engage in a prosocial act because of compassion, they may be less likely to do so unless they can explain it to themselves and others as a self-interested act in the form of an economic transaction.

Although Ratner and Miller (2001) argue that people present selfish reasons for self-presentational reasons, I am not convinced that people always do so in order to

adhere to a norm of self-interest. I think it is instead more likely that people selectively present self-interested accounts for their behavior depending on the situation, and that doing so may be more normatively acceptable when explaining prosocial behaviors and social action, on which Miller and his colleagues heavily rely because self-interest in these contexts may actually be the desirable response (Holmes, Miller, & Lerner, 2002; Miller & Ratner, 1996; Miller, 1999; Ratner & Miller, 2001).

A fourth reason to question the validity of an injunctive norm of self-interest comes from preliminary evidence that suggests people do not always report and publicly adopt self-interest as rationale for their behavior. As described above, people may feel the need to explain prosocial behaviors in terms of selfishness because of the unique way in which prosocial behaviors violate perceptions about self-interest, and they may offer selfish accounts for their policy attitudes in order to avoid appearing biased in other ways (e.g., racist). But there is additional evidence that people may regard self-interest as an undesirable bias that they should avoid, and other evidence that suggests people dislike others who present selfish reasons for their policy evaluations.

As reviewed by Pronin, Gilovich, and Ross (2004), for example, *naïve realism* is the belief among people that their own thinking is objective and reflects reality. When the thinking of others' deviates from their own, people account for that difference by regarding the thinking of others as flawed, and reflecting cognitive and motivational biases that does not infect their own thinking. For instance, Pronin, Lin, and Ross (2002) described several known cognitive biases (e.g., self-serving attribution,

dissonance reduction) to both Stanford undergraduates and travelers at San Francisco International Airport. The biases were given objective descriptions, replacing non-neutral terms like “bias” with neutral terms like “effect” and “tendency.” Participants read the descriptions and indicated the extent to which they thought their own thinking was subject to the bias, and the extent to which “the average American” or other students were subject to the same bias.

For each described bias, participants indicated their belief that others were much more susceptible to biased thinking than they themselves were. Individuals seemed to perceive their own thinking as free from the cognitive and motivational biases to which they believe others are at risk. Interestingly, Pronin, Lin, and Ross (2002) showed that this effect remained true even after participants were warned of it!

Most relevant to this thesis is the fact that one of the biases that Pronin and her colleagues tested was the effect of self-interest on judgments of the “greater good.” As with the other biases, Pronin, Lin, and Ross (2002) found that participants felt that *others* were much more susceptible to self-interested thinking than they themselves were. Participants in this study indicated that others were much more prone to thinking selfishly, but that they themselves were significantly less influenced by self-interested considerations.

These findings raise serious questions about Miller’s contention that self-interest affects behavior via perceived norms. Pronin, Lin, and Ross’ (2002) finding that participants believe that others are strongly influenced by self-interest is in keeping with Miller and Ratner’s (1998) finding that people consistently overestimate the power that

self-interest holds over others' thinking. However, Miller (1999) argues that these findings support a descriptive norm of self-interest wherein the belief that other people are behaving a certain way compels people to behave similarly. Pronin, Lin, and Ross' (2002) findings strongly suggest that people *contrast* the effect that self-interest has on their own versus others' thinking. Despite Miller's (1999) argument that people will behave selfishly because they believe others are doing so, participants in Pronin's study drew a sharp contrast between their perception that other people are selfish, and their own, more neutral thinking.

Moreover, recall that Ratner and Miller (2001) presented data that people fear social penalty for pursuing goals that are not patently selfish, and argued that people may pursue goals for selfish reasons because they believe they ought to. If self-interested thinking is an injunctive norm, then participants in Pronin, Lin, and Ross' (2002) study should have embraced the opportunity to express their own selfish thinking; they would have indicated that their own thinking is at least as self-interested as they reported others' thinking to be. However, Pronin and her colleagues found that participants treated the self-interest "bias" just as they treated all of the other biases described in the survey: they reported that others were much more prone to this effect than they themselves were. Though they did not collect data to see if participants truly are less affected by any of the described biases, the fact that participants did not lay claim to self-interested thinking when they had the opportunity to do so is good reason to question the existence of an injunctive norm of self-interest.

Similarly, Kim and Borgida (2007) presented participants with a fictitious

proposal in which participants stood to possibly gain some money that would ordinarily serve as scholarships for minority students. Participants were also presented with two fictitious peers; one opined that the best way to consider the proposal was how you are financially affected (self-interested argument), and the other opined that the best way was to “do what’s right” (value-oriented argument). Findings were consistent with those of Pronin, Lin, and Ross (2002); participants indicated their belief that others thought of the proposal in self-interested terms (i.e., how much money they would receive), but that they personally considered the proposal in value-oriented terms (i.e., how fair the policy was). Additionally, when presented with the prospect of interacting with the two peers, participants indicated they would enjoy the company of the value-oriented peer more than the self-interested peer, and that they would be friendlier toward the value-oriented peer than the self-interested peer.

Thus, there is reason to believe that the predictive effects of self-interest or value constructs in predicting policy positions may be affected by normative concerns. Previous research that demonstrated how self-interest concerns and value-laden constructs could be primed may reasonably be interpreted as demonstrating the power of social norms. Studies by Young, et al. (1991) and Chong, Citrin, and Conley (2001) confounded priming with social norms by allowing the source of the prime to be social. Wolpert and Gimpel’s (1998) found that the relationship between party identification and gun control laws was stronger during times when media likely focused on party rhetoric, which may demonstrate the power of cueing a social norm for how to think about gun control policy (and not just making rhetoric more cognitively salient).

Moreover, although Miller and his colleagues (Miller & Ratner, 1998; Miller, 1999; Ratner & Miller, 2001) argue that there is both a descriptive and injunctive norm of self-interest, they do not empirically demonstrate these norms. They present evidence that people overestimate the power of group membership in influencing attitudes and financial incentive in inducing behavior, but fail to demonstrate that this belief about others' behavior actually inspires selfish behavior on the part of perceivers. Although they present compelling evidence that people fear social penalty for engaging in political action if they are not personally vested, they do not actually show that people behave in selfish ways because they believe they ought to.

Overview of Proposed Research

The purpose of the proposed research is to provide a more precise understanding of the hypothesized role that social norms play in the expression of self-interest or values in policy evaluations, and the process by which that might occur. Earlier, I discussed the possibility that people who are affected by a policy may attend to accessible normative information about the best way to evaluate that policy. If normative cues indicate that one mode of policy evaluations (self-interested or value-oriented) is more socially normative, then people may be compelled to evaluate that policy on that basis. If this is true, then people may present different reasons for their position on a policy when they believe that certain kinds of reasoning are more socially normative than others, in accordance with impression management theory (Baumeister, 1982; Jones & Pittman, 1982).

Hypothesis 1 therefore states that the reasons people present for their positions toward a policy will vary as a function of what is socially sanctioned such that their expressed reasons will be congruent with a cued social norm. This is in contrast to Miller's arguments for a "norm" of self-interest that is insensitive to context (Miller, 1999; Ratner & Miller, 2001). I believe that people will not always feel compelled to offer selfish reasons for their policy positions, but that those reasons may vary as a function of what is regarded as normatively acceptable. If it is clear from social cues that selfish thinking is socially normative, then individuals will be more likely to present selfish reasons for their policy attitudes in order to present themselves as competent or to avoid social sanction; but if it is clear that value-oriented reasoning is more normatively acceptable, then individuals will be more likely to present value-oriented reasons (for the same impression management reasons).

I also hypothesize that normative information regarding the appropriate way of thinking about a policy, and cognitive accessibility of a mode of thinking each exert independent biasing effects on people's evaluations of a relevant policy (*Hypothesis 2*). If it is true that norms are a factor in how one construes a policy, then whether self-interest or values predicts policy evaluation should vary as a function of which is normatively sanctioned. In other words, a person's self-interest will be more strongly predictive of his/her evaluation of a policy when the individual believes that it is socially acceptable to use his/her self-interest as a guideline; if, however, the individual believes that it is more normative to use relevant values as a guiding framework, then his/her values will be more strongly predictive. Additionally, this effect should be

independent of the cognitive accessibility of self-interested or value-oriented modes of thinking, which can exert their own biasing effects.

As described above, earlier evidence on the effects of “priming” self-interest has supported the idea that normatively sanctioning self-interest or value-oriented concerns can heighten the influence of self-interest on policy evaluations (Chong, Citrin, & Conley, 2003; Golpert & Wimpel, 1998; Young, et al., 1991). However, as I have discussed, it is not clear based on the results of these studies whether participants’ self-interest or values were more strongly predictive because those psychological constructs were more accessible to them at the time of policy evaluation, or because researchers provided participants with a descriptive norm about the standard to use when evaluating the policies. Although I do not believe that people are necessarily consciously aware of how normative information affects them, I do think that the psychological mechanism behind activating normative concerns and pure cognitive priming are distinct from one another. And this distinction may be important during times when one’s self-interested concerns are chronically accessible because of substantial personal losses and/or major economic downturn, but when the language surrounding a particular policy focuses on more value-laden concerns. The results of this thesis will help to clarify the psychological processes behind these findings by disentangling and then independently manipulating both perceived social norms and cognitive accessibility of both the self-interest and value constructs.

Chapter 2

Study 1

Overview and Predictions

The primary purpose of Study 1 was to test whether people's explanations for their positions on a policy, either self-interested or value-oriented, would vary as a function of a perceived social norm. *Hypothesis 1* stated that people's reasoning for their policy attitudes will be congruent with the activated social norm. To test this hypothesis, participants read about a fictional policy ostensibly being considered by the University of Minnesota to raise tuition by 10% for all students in order to refurbish scholarships set aside for minority students. This particular topic was chosen because it affected students financially and had moral, value-laden overtones. Participants then read comments that appeared as though they had been written by fellow students, and were designed to establish norms (both descriptive and injunctive) for the best way to think about the policy. One-third of participants read cues that led them to believe that self-interested thinking was common and sanctioned; one-third read cues leading them to believe that value-oriented thinking was common and sanctioned; one-third of participants read cues that did not establish a norm, one way or another. Additionally, half of participants were led to believe that their responses would be completely private, whereas the other half believed that they would share their responses with a fellow student. This privacy is a standard manipulation in the impression management literature to gauge the psychological processes behind conforming to a perceived social norm (see Baumeister, 1982). If participants conform to a norm when they believe their

answers are public but not private, then this is regarded as evidence that participants' behaviors are shaped by normative concerns, and not due to private acceptance of normative information.

The study thus employed a 3 (type of norm) X 2 (privacy) between-subjects design. Participants provided written responses to the fictional policy, indicated their attitudes toward the fictional policy, and the basis for their evaluation (more or less self-interested or value-oriented).

Pilot Testing

The cues that participants read were pilot tested to ensure that they cued the norm that they were designed to cue.

Participants

Participants were 36 undergraduate students enrolled in Psychology courses at the University of Minnesota, who participated in exchange for research participation. Sixteen were men and 20 were women and ages ranged between 18 and 25 years old ($M=20.78$, $SD=1.40$). Most of the participants were identified themselves as Caucasian ($n=29$), followed by Asian-American ($n=4$); the remaining participants identified as Latino/Hispanic ($n=1$), African-American ($n=1$) and Other ($n=1$).

Materials

Participants read about a fictitious proposed tuition increase being considered by the University of Minnesota to raise tuition for all students by 10% to restore dwindling funds set aside for minority scholarships and minority recruiting (see Appendix A). Then, 20 participants were presented with 14 comments that were simply described as

“possible responses” to the tuition increase by fellow undergraduate students.

Participants were instructed to provide three ratings for each comment: a) the extent to which the comment was for (rating=5) or against (rating=1) the proposal, b) the extent to which the comment expressed financial concerns (rating=5), and c) the extent to which the comment expressed value concerns (rating=5). Based on results, 13 more comments were created and tested among a sample of 16 participants, who also rated the original 14 comments. Thus, all 36 participants rated the original 14 comments and 16 rated the additional 13 comments.

Results

For each comment, the self-interested rating was compared to the value-oriented rating using a within groups *t*-test. Based on the results, 14 comments were selected out of the original 27 on the basis of whether the comment was construed as being for or against the tuition increase and whether the comment was regarded as being more self-interested vs. value-oriented (7 comments each). With one exception (“It could be so much worse. My friend's tuition jumped up 15% last year. I can do 10%.”; $p=.191$) all self-interested comments were rated as being significantly more self-interested than value-oriented. This last comment was selected because it was for the tuition increase, it was financial-oriented, and I judged it as a realistic comment that could have been written by an undergraduate in response to the proposal. All value-oriented comments were rated significantly more value-oriented than self-interested. See Tables 1 and 2 for comments and mean ratings.

Method

Participants

A power analysis revealed that in order to detect an effect size of $d=.50$ in a 3 X 2 ANOVA, a sample size of $N=90$ was necessary. I estimated the anticipated effect size based on the nature of the study design that required half of participants to believe they would be sharing their response with another student. Eighty-six participants from the University of Minnesota participated in the study in exchange for two extra credit points toward an undergraduate psychology course. Fifty-seven participants were women and the mean age was 19.83 years. With respect to race, 71 participants identified as Caucasian, 6 as African-American, 5 as Asian-American, and 4 listed themselves as “Other.”

Procedure and Measures

Participants arrived for a study called “A Conversation about Social Issues.” When signing up for the study, participants were instructed not to sign up with somebody that they knew, enforcing a belief among participants that the study involved a potential interaction with a fellow student.

When participants arrived to the study, they were greeted by an experimenter and given a Consent Form to read and sign while they ostensibly waited for the “other participant.” While the participant read the Consent Form, a Caucasian confederate arrived to the study. The experimenter asked, “Are you here for the REP study?” and the confederate replied in the affirmative. After both the participant and confederate signed the Consent Form, the researcher started reading from a script (Appendix B).

The researcher informed participants that the study investigated how students would think and talk about a real campus initiative that the University was considering that had the potential to be controversial. Because the topic was potentially controversial, participants would be separated to answer the first set of questions on their own. Then, depending on which condition they were in, they would either discuss the topic of the proposal with each other or they would answer questions about the proposal privately. The participant and confederate were then separated to answer the first packet of questions on their own.

The first questionnaire packet included demographic information about the participants including age, sex, race, and year in school. Additionally, individual difference measures were included to rule out alternative explanations for results, to serve as control measures, and to examine more deeply the psychological processes by which participants conformed to a norm. Participants completed the Self-Monitoring Scale (Snyder, 1974) which measures the degree to which people use others' behavior as a guide for their own ($\alpha=.65$). This measure was included to examine the possibility that the normative information had a stronger effect for a subset of participants.

The short form of the Need for Closure Scale was included because it measures the extent to which people "seize and freeze" on information; in this case, participants may follow a cue because they are high in Need for Closure and are "seizing and freezing" on the norm as a guide for how to behave (see Webster & Kruglanski, 1994; $\alpha=.81$). Additionally, participants answered the Protestant Work Ethic Scale (Katz &

Hass, 1988; $\alpha=.75$) and the Social Dominance Orientation (SDO) Scale (Sidanius & Pratto, 1999; $\alpha=.91$), which were included as potential control variables.

Participants' objective financial strain was assessed by questions about how many hours they worked per week for pay, and the types of financial aid that they received. This objective self-interest composite has been shown to be uniquely predictive of attitudes toward minority scholarships (Kim, Hunt, Borgida, & Chaiken, 2006; see Appendix C for all of these measures).

After participants completed the first questionnaire packet, they were instructed to join the researcher to receive further instruction. When the participant finished, the researcher loudly asked, "Are you finished?" to prompt the confederate to also enter the room, ostensibly having just completed his or her own questionnaire. The researcher continued to read from the script, introducing the second set of packets. The researcher informed participants of the possibility that repeatedly answering questions about themselves could bias their thoughts, so participants would next complete a lexical task to essentially "neutralize" their minds after answering the individual difference measures. The lexical task was a word scramble in which 20 lettered stimuli could be unscrambled to form real, commonly used words. Participants were briefly shown the task and then were told that they would next read about the campus proposal on the next page. Then, the researcher looked closely at the packets and informed participants which condition (public or private) that they were in.

If participants were in the *private condition*, the researcher emphasized that all of their answers would be completely private; their packets would go straight into an

envelope (shown to the participants) to be coded by another researcher because the researcher him/herself was not permitted to examine it. If participants were in the *public condition*, the researcher instructed participants that they would discuss their answers about the proposal with each other for a few minutes. Additionally, packets in the private condition were clearly labeled “PRIVATE” and packets in the public condition were clearly labeled “DISCUSSION WORKSHEET.”

Participants then separated again to complete their questionnaire packets. Participants completed the word scramble, read about the proposed tuition increase, and then started the packet that was either labeled “PRIVATE” or “DISCUSSION WORKSHEET.” Participants were prompted to provide their own written responses to the proposal. Before providing their own written responses, participants were instructed to read comments provided by other students who completed this study last semester, to help them better understand the length and clarity of responses that the researchers were looking for. In the *self-interest cue* and *value cue* conditions, participants read the comments established during pilot testing and read three additional comments that were neither self-interested nor value-oriented (“This is the stupidest idea I have ever heard of”; “I’m not sure I understand. I’d like to learn more”; “The U really should have done this years ago!”). Participants in the neutral cue condition read only these three comments. All comments were hand-written and photocopied onto the packet, enhancing the appearance that the comments had been provided by other students. Participants then provided their own written responses; half believing that these responses would be private, and the other half believing that they would be discussing

their responses with the confederate. Then, participants answered closed-ended Likert-type questions designed to assess their overall support for the proposal ($\alpha=.93$) and the bases for their support on the Bases Scale (see Appendix D).

Participants in the public condition were then told that there had been a mistake and that they would not be discussing their answers with the other participant (the confederate), and were handed the final packet of questions to answer on their own. The purpose for this deception was to prevent participants from being debriefed about the purpose of the study while they were still providing data. Participants in the private condition were simply handed the last packet. The last packet of questions included questions designed to assess participants' subjective perception of how they would be personally affected by the tuition increase, and various manipulation check questions (Appendix D).

Results

Manipulation Checks

The last packet of questions included manipulation check questions to ensure participants knew that they were in the correct condition. All participants were asked which privacy condition they had been assigned to, and to characterize the student comments that they had read as being primarily self-interested, primarily value-oriented, or "I don't know."

Privacy Condition. All 43 participants in the "private" condition indicated that they were in the "private" condition. However, 14 participants in the "public" condition indicated that they were in the "private" condition. At the end of one such participant's

debriefing interview, the researcher pointed to the discrepancy and asked the participant if she had truly believed, while filling out her answers in the third questionnaire packet, that she would not be sharing her answers with the other participant even though she was in the “public” condition. The participant indicated that she had marked that she was in the “private” condition because the researcher had told her there had been a mistake (see script in Appendix B), but that during the course of the experiment she had believed she was in the “public” condition and that she would be sharing her answers with the other participant. After this incident, answers to this manipulation check question were verified with all participants in the “public” condition, with all participants giving similar answers; that they had known that they were in the “public” condition, but that they had marked otherwise during the manipulation check because of the perceived error. All participants who had marked that they were in the “private” condition changed their answers back to “public” when the question was clarified to them. Thus, with the exception of the 14 participants who could not be contacted to clarify the question, all participants were aware of which privacy condition they were in which led me to conclude that had I had the opportunity to ask the other 14 participants, that they would have provided the same answers.

Cue Condition. Table 3 includes responses to the cue condition manipulation check. Participants in the self-interest cue condition were significantly more likely to rate the comments as reflecting financial concerns (20 out of 26), and participants in the value cue condition were more likely to rate their comments as reflecting value systems (23 out of 34; $\chi^2(4)=25.89, p<.001$). Of the 25 participants in the neutral cue condition,

8 indicated their belief that the comments reflected financial concerns, 11 indicated that the comments reflected value systems, and 6 marked “I don’t know.”

Primary Dependent Measures: Open-Ended Responses

Coding specifications. Participants’ open-ended written responses to the tuition increase were coded by two coders who were blind to which cue condition (self-interest, value normative, or neutral) participants were in. Coders were aware of privacy condition because the top of the sheet either said “PRIVATE” or “DISCUSSION WORKSHEET.” However, because there were no hypotheses regarding a main effect of privacy, I did not regard this as a threat to the validity of the codes.

First, coders met and reviewed coding specifications. Coders initially used coding specifications that had been developed in a previous study to code open-ended responses to a similar stimulus (Kim, Hunt, Borgida, & Chaiken, 2006). These specifications included a variety of ways in which participants’ answers could be self-interested or value-oriented in response to the proposal, and coders categorized participants’ comments into one of these possibilities. For example, Code 207 included any mention of unfairness; a comment would be coded as Code 207 if it said something along the lines of, “This isn’t fair at all!” Similarly, Code 401 includes “I can’t afford/I won’t be able to afford,” so if a participant’s comment was along the lines of, “I can’t afford another tuition increase” then that comment was coded as Code 401.

After coders reviewed the coding specifications, they each separately coded ten participants’ open-ended responses in accordance with the original coding specifications, and then met a second time to calibrate coding and change the coding

specifications as necessary. The final coding specification sheet is included as Appendix E.

In addition to detailing possible self-interested and value-oriented responses to the tuition increase, the coding specifications categorized responses in blocks based on theme. The first block of codes comprised comments that were value-oriented and for the tuition increase (e.g., “Diversity is really important”). The second block of codes included any value-oriented comment that was against the tuition increase, including mentions of racism or reverse-racism, unfairness, and comments promoting individualist sentiments such as the value in working hard and taking care of yourself, or a desire for the scholarship to be based on merit alone. The third block of codes included any self-interested comment that was for the tuition increase, such as the participant being a minority group member, or the participant not believing that the 10% tuition increase was financially substantial. The fourth block of codes included self-interested comments against the tuition increase, such as complaints of not being able to afford the increase, mentions of taking out student loans, or a personal desire for more scholarships for the self. Other codes included mentions evaluating or critiquing the plan, such as suggesting that the University raise money by other means, general comments for or against the plan, and mentions of emotions. If a comment could not be categorized into any of these pre-specified codes, it was coded as uncodable.

All codes were also rated for length, whether the comment was for or against the tuition increase, and whether the comment was a refutational response, indicating elaborate thinking (e.g., “Although I believe in the importance of diversity, a 10%

tuition increase is just way too much”). Some written responses warranted more than one code because the response was longer than one sentence or the participant mentioned more than one concept in one sentence (e.g., "This is reverse racism and people will have to drop out"). Thus, the total number of codes for each participant was also calculated.

As described, comments were classified into seven "blocks" of codes such that if a comment was coded as Code 202 ("The U is already diverse") then it was re-classified as being a value-oriented comment against the tuition increase in the 200 block of codes. Furthermore, totals for each block were calculated so that a count of how many comments in each block was noted for each participant (e.g., Participant 101 wrote a total of 2 value-oriented comments against the tuition increase, 3 self-interested comments against the tuition increase, and 4 evaluations of the tuition increase).

Inter-rater agreement. After the initial calibration meeting, coders also double-coded an additional 20% of participants to calculate inter-rater agreement. Seventeen participants were selected at random and independently coded by both coders. Codes were re-organized by blocks such that if Coder 1 rated a comment as Code 402 ("10% tuition increase too much") and Coder 2 rated the same comment as Code 406 ("Any complaint about tuition costing too much"), it was counted as an agreement because both coders agreed that the comment belonged to Block 400 (self-interested in nature and against the tuition increase), which is the level at which responses are analyzed below. Cohen's kappa, a conservative estimate of the time that coders agree after accounting for chance agreement (Cohen, 1960) was $\kappa=.74$, which is regarded as

“substantial agreement” (Landis & Koch, 1977). With respect to the raw percentage of agreement, coders agreed 90% of the time.

Results. The number of written responses ranged from no responses (from one participant) and 11 responses (from two participants). The mean number of responses was 7.19, with most participants filling in all 10 lines provided. On average, participants devoted the most comments to critiquing or evaluating the proposed tuition increase (e.g., "This is a good idea," "They should appeal to alumni donors"), with a mean in this block of 2.58 comments. Participants wrote nearly as many value-oriented responses against the tuition increase, with a mean of 2.45 comments per participant, and then self-interested responses against the tuition increase (1.44 comments per participant). Participants were least likely to mention an emotion, with a mean of .11 comments in this category. See Table 4 for the average numbers of comments in each coding block.

The number of value-oriented comments that were for the tuition increase were added to the number of value-oriented comments that were against the tuition increase to create an index of how value-oriented each participant was in his/her written comments. Similarly, the number of self-interested comments for and against the tuition increase was also calculated. These served as the primary open-ended dependent measures.

Primary Dependent Measures: Closed-Ended Responses

In addition to being asked to provide written responses to the fictitious proposal, participants also rated how much they weighed financial and value-oriented factors

when evaluating the proposal on 10 separate items using a 10-point scale (the Bases Scale, see Appendix D). As with their open-ended responses, participants in the “public” condition believed they would share their ratings with another participant, whereas participants in the “private” condition believed their answers would be confidential. Participants’ responses to the Bases Scale were factor analyzed via principal-axis factoring using promax rotation. This resulted in three factors (with eigenvalues over 1.00) that accounted for 62% of the variance between the variables, and three single items that did not load onto any factor. To verify the three-factor model, data were randomly generated to create 10 variables with the same descriptive statistics as the items on the Bases Scale (i.e., were matched for mean, standard deviation, and range). These data were also factor analyzed, and resulting scree plots of the real data and the randomly generated data were compared. The lines crossed after factor three, verifying the existence of three factors (see Figure 1).

The first factor accounted for 31% of the total variance and comprised the following items: “Whether diversity is important to me,” “Whether diversity is important to society,” and “Whether the proposal promotes diversity or not.” This factor, the Diversity Factor, was hypothesized to measure the extent to which participants considered diversity concerns while evaluating the proposal. These items were averaged across all participants to create a Diversity Concern Basis Scale measuring the importance of diversity ($\alpha=.90$ for this scale). Although the measures comprising this factor were intended to measure the extent to which participants weighed diversity at all, so that participants who strongly disliked diversity could mark

“10” and participants who strongly valued diversity could also mark “10,” follow-up analyses regarding this factor suggested it measured the extent to which participants personally valued diversity when considering the tuition increase (i.e., “Diversity is important and this strongly influenced my proposal evaluation). In particular, this measure was significantly negatively correlated with participants’ Social Dominance Orientation (SDO) scores, which is a measure of the extent to which people value hierarchy ($r=-.55, p<.001$).

The second factor accounted for 19% of the total variance and was hypothesized to be the Personal Self-Interest Factor. Items included “Whether I can afford a 10% tuition increase” and “How much it will affect me financially.” Average score across these two items was calculated for all participants to create a Personal Self-Interest Basis composite ($\alpha=.90$ for this scale as well).

The third factor comprised two items and accounted for 11% of the variance: “How Whites are financially affected” and “How minorities are financially affected.” Average score across these two items was calculated to create Group Self-Interest Basis Composite ($\alpha=.68$).

The last three items did not load onto a factor. Thus, they were not incorporated into a composite and were analyzed individually. They included the following items: “Whether the proposal is fair or not,” “Whether the proposal promotes equality or not,” and “Whether others can afford a 10% tuition increase.” Descriptive statistics for all scales and unloaded items are shown in Table 5.

Thus, the primary closed-ended dependent measures were scores on the Diversity Concern Basis, Personal Self-Interest Basis, Group Self-Interest Basis, and the three single items “How fair or unfair the proposal is,” “How the proposal promotes equality or not,” and “Whether others can afford a 10% tuition increase.”

Primary Results: Open-Ended Responses

Preliminary analyses on the open-ended responses revealed that important subgroups wrote significantly more self-interested and value-oriented responses, likely as a function of group membership and not due to the manipulations. First, Whites wrote significantly more value-oriented comments ($M=3.59$) and self-interested comments ($M=1.69$) than non-Whites did ($M=2.14$, $t(82)=-2.131$, $p<.05$; $M=.93$, $t(34.402)=-2.37$, $p<.05$, respectively). This is probably due to the fact that most of both types of comments were against the tuition increase, and Whites were significantly more opposed to the tuition increase than non-Whites ($M=2.81$ compared to $M=4.23$, $t(82)=2.513$, $p<.05$). Second, non-seniors wrote significantly more self-interested comments ($M=1.64$) than seniors ($M=1.00$; $t(28.003)=-2.09$, $p<.05$). Graduating seniors, probably feeling that they would not be affected by the proposal, wrote fewer self-interested comments and were significantly more supportive ($M=4.00$ as compared to $M=2.90$, $t(16.14)=2.15$, $p<.05$). As such, participants’ race (whether White or not) and undergraduate standing (whether senior or not) were entered as covariates when appropriate.

Hypothesis 1 stated that people’s reasoning for their policy attitudes will be congruent with the perceived activated social norm; that is, that people will present self-

interested reasoning for their attitudes when they believe that others are thinking in self-interested ways, or that they will present value-based reasoning when they believe that others are value-oriented. To test this hypothesis, data were entered into two a 2 (privacy) X 3 (cue) ANCOVA models predicting a) the total number of value-oriented responses (with race as a covariate) and b) the total number of self-interested responses (with race and year in school as covariates). In both models, I expected to find a main effect of cue type such that when the cue indicated that the norm was to think about the proposal in terms of values, then there would be more value-oriented comments, and when the cue indicated a norm of self-interest, that participants would write more self-interested comments. I also expected a significant interaction such that participants would write the most value-oriented comments or self-interested comments depending on the cue type in the public condition when participants anticipated sharing their answers with a fellow student, i.e., when impression management concerns would be most salient.

When predicting the number of value-oriented responses, analyses revealed a significant main effect of cue type ($F(2,77)=4.74, p<.05$). Post hoc analyses using the Bonferroni correction for multiple comparisons revealed that participants in the value cue condition wrote significantly more value responses ($M=4.27$) than those in the neutral condition ($M=2.66$) and the self-interest condition ($M=2.75$). However, contrary to prediction there was no significant interaction between privacy and cue type ($F(2,77)<1$).

Analyses predicting the number of self-interested responses revealed a marginal main effect of cue type ($F(2,76)=2.62, p<.10$) such that participants in the self-interest cue condition wrote marginally more self-interested responses ($M=2.05$) than participants in the neutral cue condition ($M=1.02$) but did not differ from participants in the value cue condition ($M=1.51$). However, as was the case with predicting the total number of value-oriented responses, the interaction between privacy and cue condition was not significant ($F(2,76)=1.67, p=ns$). Figures 2 and 3 show the means for each dependent measure by norm and privacy conditions².

Primary Results: Closed-Ended Responses

As was the case with the open-ended comments, important subgroups differed in the extent to which they rated the importance of different bases. Whites' answers on the Diversity Basis Scale were marginally lower than non-Whites' ($M=5.96$ as compared to $M=7.26$; $t(82)=1.73, p<.10$). Also, seniors rated their attitudes significantly less based on Personal Self-Interest ($M=5.05$) than non-seniors, who likely saw themselves as being more affected by the tuition increase ($M=7.45, t(82)=-2.60, p<.05$). Thus, when predicting answers on these two scales, these subgroups were entered as covariates as before. Table 5 has descriptive statistics for items from Basis Scale.

Again, data were entered into a 2 (privacy) X 3 (cue) ANCOVA predicting answers to the various scales. Participants' answers to the Diversity Scale were not

² Data were also analyzed on log-transformed and square root-transformed dependent measures to meet the assumptions of ANOVA regarding normality. The results using those dependent measures were the same.

significantly predicted by cue type ($F(2,77)<1$) or by the interaction between cue and privacy conditions ($F(2,77)<1$). This lack of relationship held when participants' Social Dominance Orientation (SDO) scores were entered as an additional covariate.

Similarly, when predicting participants' answers to the single Basis item "Whether the proposal promotes equality or not," there was no main effect of cue type ($F(2,78)<1$) or interaction ($F(2,78)<1$), even when controlling for SDO scores. See Table 6 for means by condition for each of these dependent measures.

When predicting participants' answers to the single Basis item "Whether the proposal is fair or not," there was no main effect of cue type ($F(2,78)=2.03$, $p=ns$ or significant interaction $F(2,78)<1$). Because participants' consideration of the fairness of the proposal may have been affected by their beliefs about individualism and the value in taking care of yourself, participants' Protestant Work Ethic (PWE) scores were entered as a covariate. When PWE was entered as a covariate, participants in the value cue condition rated themselves as marginally more concerned about the fairness of the proposal ($M=8.04$) than participants in the neutral condition ($M=6.75$; $F(2,77)=2.34$, $p=.10$).

Similarly, when predicting participants' answers to the Group Self-Interest Scale, there was no significant main effect of cue type ($F(2,78)<1$) or interaction between cue and privacy conditions ($F(2,78)<1$). Once again, PWE scores were then entered as a covariate because of the possibility that participants' concern about how Whites and non-Whites were financially affected may have been influenced by individualistic beliefs. Although the main effect of cue and the interaction between cue

and privacy conditions remained nonsignificant ($F(2,77) < 1$ for both), privacy condition emerged as having a marginal effect on participants' answers. When controlling for PWE, participants reported being marginally less concerned about Whites' and minorities' ability to afford the tuition increase in the public condition than in the private ($M=5.11$ as compared to $M=6.10$; $F(1,77)=3.09$, $p < .10$). Thus, when it came to expressing a financial concern, participants depressed their financial concerns when they expected to share their answers with another student.

When predicting participants' answers to the Personal Self-Interest Scale, there was no main effect of cue type ($F(2,77) < 1$); participants in the self-interest cue condition did not rate themselves as being more affected by their personal financial self-interest than participants in other cue conditions. However, there was a marginal interaction between privacy and cue type ($F(2,77)=2.75$, $p < .10$). Follow-up simple effects analyses examined the effect of cue type at each level of privacy, controlling for year in school. In the "private" condition, there was no significant difference in participants' answers on the Personal Self-Interest Scale; participants who viewed the self-interest cue did not rate themselves as more concerned about their self-interest when their answers were private ($F(2,77) < 1$). In the "public" condition, however, there was a marginal difference between participants who viewed the self-interested cues and participants who viewed the value-oriented cues ($F(2,77)=2.42$, $p < .10$). Thus, participants were marginally more affected by the social cues they had read in determining how self-interested they were, but only when they believed they would be

presenting their answers with a fellow student³. Figure 4 shows participants' answers on the Personal Self-Interest Scale by privacy and cue conditions.

When predicting participants' answers to the single Basis item "Whether others can afford a 10% tuition increase," there was no main effect of cue type ($F(2,78)=1.02$, $p=.ns$). However, there was a marginal interaction ($F(2,78)=2.54$, $p<.10$). Again, follow-up simple analyses examined the effect of cue type at each level of privacy and revealed that when participants believed their answers would be private, cue type exerted no effect on their reported concern for others' ability to afford the increase ($F(2,78)<1$). However, participants in the "public" condition were much more affected by the cue; participants who viewed self-interested cues reported being significantly more concerned about the affordability of the tuition increase for others than participants who viewed neutral cues ($F(2,78)=3.35$, $p<.05$). This marginal interaction held up even after participants' PWE scores were entered as a covariate ($F(2,78)=2.31$, $p=.10$).

³It is worth noting that when participants' level of financial strain, a composite of how many hours students worked for pay and how many forms of financial aid they received, was entered as an additional covariate, the marginal interaction dropped to nonsignificance ($F(2,76)=2.07$, $p=ns$). However, it is also worth noting that when financial strain was entered as the only covariate the interaction remained marginal ($F(2,77)=2.76$, $p<.10$); additionally, removing both covariates resulted in this interaction being significant ($F(2,78)=3.16$, $p<.05$). This pattern of results suggests that adding financial strain as an extra covariate results in a loss of power due to the loss in degrees of freedom.

The Role of Self-Monitoring

If a social norm causes participants to differentially report their levels of self-interestedness and value-orientedness because of a belief in what is normatively acceptable, then it is possible that this effect is enhanced for a particular group of people. Self-monitoring is hypothesized to be related to the degree to which people use others' behavior as a guide for their own (see Snyder, 1974). High self-monitoring individuals are more sensitive to the social context in determining the appropriate behaviors, so high self-monitoring individuals may have been especially susceptible to following the established norms.

To test whether self-monitoring differentially affected whether participants were more or less likely to report being congruent with the manipulated norm, data were entered into a 2 (privacy) X 3 (cue) X 2 (high/low self-monitoring) ANOVA predicting each of the dependent measures: a) number of value-oriented responses, b) number of self-interested responses, c) answers to the Diversity Concern Basis Scale, d) answers to the Personal Self-Interest Basis Scale, e) answers to the Group Self-Interest Basis Scale, f) answers to the single item "How fair or unfair the proposal is," g) "How the proposal promotes equality or not," and h) "Whether others can afford a 10% tuition increase." With two exceptions, adding self-monitoring to the models had little effect on my ability to predict participants' levels of self-interestedness or value-orientedness. That is, for most dependent measures the results were largely the same; some significant effects and some interactions dropped to marginality, but the pattern of results was very similar.

However, when predicting participants' written number of value-oriented responses, participants' level of self-monitoring emerged as a significant predictor such that high self-monitoring individuals reported significantly more value-oriented responses ($M=3.89$) than low-self monitoring individuals ($M=2.62$; $F(2,72)=5.86$, $p<.05$). Self-monitoring scores did not, however, interact with cue type or privacy conditions. This main effect remained significant even after controlling for race. Thus, overall, high self-monitoring individuals were seemingly more concerned about value-related beliefs than low self-monitoring individuals.

Self-monitoring also changed my ability to predict participants' answers to the Diversity Basis Scale. Recall that when self-monitoring was not included in the model, that there was no main effect of cue type or interaction between cue and privacy conditions when predicting answers to this scale. When self-monitoring was included, however, it interacted with cue type significantly ($F(2,72)=3.22$, $p<.05$). Simple analyses revealed that in the neutral condition, high self-monitors reported being marginally more concerned about diversity ($M=7.07$) than low self-monitors ($M=4.91$; $F(1,72)=3.27$, $p<.10$). In the self-interest cue condition, there was no difference between high and low self-monitoring individuals ($M=6.08$ and $M=6.68$). In the value cue condition, however, there was once again a marginal difference between high and low self-monitoring participants, but the pattern was reversed. Whereas high self-monitoring individuals reported being marginally more concerned about diversity in the neutral condition, they were marginally *less* concerned in the value condition ($M=5.15$ as compared to $M=6.54$; $F(1,72)=3.09$, $p<.10$). Thus, in the absence of a clear norm (in

the neutral cue condition), high self-monitoring participants reported being more concerned about diversity, which is somewhat consistent with the fact that high self-monitors wrote more value-oriented comments than low self-monitors overall. However, when high self-monitoring participants were led to believe that others considered the tuition proposal in terms of value-laden reasoning, they reported being less affected by diversity concerns. It is possible that when high self-monitors are told that others are considering the tuition increase with respect to their values and what the right thing to do is, that high self-monitors adhere to this norm by strongly disagreeing about the need for diversity, which the Diversity Basis Scale appeared to measure.

The Role of Need for Closure

It was possible that participants did not view the provided cues as normative information, but were “seizing and freezing” on the provided norm because of a disposition to do so. To rule out this possibility, participants’ dichotomized Need for Closure scores (Webster & Kruglanski, 1994) were entered into the models as their Self-Monitoring scores were in the previous analyses. If the effect of the cue was to provide participants with a mode to “seize and freeze” on, then participants high in Need for Closure would be most likely be affected by the provided cue, so there should be a significant interaction between Need for Closure (dichotomized) and cue type.

With a few exceptions, adding Need for Closure as a moderator did not significantly change my results. Predicting the dependent measures regarding financial self-interest (the total number of self-interested responses, answers to the Personal Self-Interest Basis Scale, Group Self-Interest Basis Scale, and “Whether others can afford a

10% tuition increase”) were not affected. With respect to predicting answers to the Diversity Basis Scale, “How fair or unfair the proposal is,” and “How the proposal promotes equality or not,” there were significant and marginal main effects of Need for Closure such that participants high in Need for Closure had lower scores, indicating they were less concerned with these values (see Table 7 for means on these measures by Need for Closure). Given that Need for Closure was significantly positively correlated with SDO ($r=.41, p<.001$), these differences were not surprising.

With respect to interacting with cue type, Need for Closure scores significantly interacted with cue type when predicting the total number of value-oriented responses ($F(2,72)=3.42, p<.05$), but in the opposite direction than expected if the effect were due to “seizing and freezing.” Participants high in Need for Closure appeared to be impervious to cue type, with mean number of value-oriented responses remaining the same despite cue ($M_{\text{neutral}}=3.92, M_{\text{self-interest}}=3.16, M_{\text{value-oriented}}=3.73; F(2,72)<1$). By contrast, participants low in Need for Closure reported significantly more value-oriented responses in the value condition ($M=4.42$) than in the self-interest condition ($M=2.58$) and the neutral cue condition ($M=1.50; F(2,72)=6.50, p<.01$). Because participants were low in Need for Closure, the increased number of value-oriented responses is likely not due to “seizing and freezing.” Rather, it appears that participants who were low in Need for Closure were more sensitive to responding to the cueing of normative information. Future research should explore the mechanism by which those low in Need for Closure respond to normative cues.

Discussion

The purpose of Study 1 was to test the hypothesis that people's reasoning for their stance on a policy, self-interested or value-oriented, would be congruent with the perceived social norm that was activated in the context. Participants were presented with a fictitious policy to evaluate and were cued to believe that their peers either viewed the policy in terms of self-interested concerns or through their values.

I hypothesized that participants' written comments would be congruent with the established normative cue such that participants in the self-interest cue condition would write more self-interested responses, and participants in the value cue condition would write more value-oriented responses. I also hypothesized that this tendency would be exaggerated in the "public" condition, when participants anticipated sharing answers with a fellow student. Although both main effect hypotheses were supported, the interaction was not. Participants did tend to write more cue-congruent comments, but were not more apt to do so when in the "public" condition. Although these data suggest that participants' presented reasoning for their policy evaluations reflects a desire to be norm congruent, they may also reflect the effect of a cognitive prime. That is, participants in the self-interest cue condition may have written more self-interested comments merely because their financial self-interest concerns were more cognitively salient, and participants in the value cue condition may have written more value-oriented comments because their values were more accessible.

The results from the closed-ended Basis Scales, however, do not fully support the idea that these effects are merely due to priming. Although there was one marginal

main effect of norm when predicting answers to “How fair or unfair the proposal is” (after participants’ PWE scores were covaried out), norm did not exert a main effect on any other of the critical dependent measures as a prime would be expected to. Moreover, the two marginal interactions between privacy and cue type when predicting participants’ Personal Self-Interest scores and answers to “Whether others can afford a 10% tuition increase” support the hypothesis that the cues were considered to be normative, and did not simply make a mode of thinking more cognitively accessible. Participants in the self-interest cue condition privately reported being less concerned about the affordability of the proposal (across both measures), but tended to inflate these concerns when they expected sharing their concern with another student. Thus, participants’ presented endorsement of self-interested based reasoning varied with respect to the cue in the public condition. Although this effect was marginal, it is at least consistent with for my hypothesis.

These results are also of interest because they relate to the “norm of self-interest” as presented by Miller and his colleagues (Miller, 1999). According to Miller, there is both a descriptive and prescriptive norm of self-interest that compels people to behave in self-interested ways. In the “private” condition, participants rated themselves equally concerned about Personal Self-Interest regardless of cue type, suggesting that all participants equally endorsed a norm of self-interest regardless of cues. And participants who viewed self-interested cues enhanced their self-interested concerns in the “public” condition. This did not occur uniformly, such that all participants enhanced self-interested cues, as one might expect if there was a standing, constant

norm of self-interest, but it is of interest that participants moderated their expressed self-interest when they believed it was more normatively appropriate.

Additional analyses did not support a possible alternative explanation that participants were “seizing” and “freezing” on information in their environment. Including Need for Closure as an additional moderator did not result in findings that suggested participants followed cues simply because the cues were available. Additionally, investigating the role of self-monitoring did not suggest that high self-monitoring participants were more or less prone to following a cue.

One possible issue with these analyses is a lack of power. Although a power analysis suggested that 90 participants would provide enough power in a 2 X 3 design, I did not anticipate different groups being differentially affected enough that group membership would need to be entered as a covariate, resulting in a loss of degrees of freedom. I expected non-White participants to still present self-interested reasoning when the cue indicated such thinking was normatively acceptable, or value-oriented reasoning when the cue indicated such thinking was desirable. Thus, it is possible that many of the marginal effects that I found could have been statistically significant provided there had been more participants and increased power.

Nevertheless, the results of Study 1 suggest that vested people attend to social cues while evaluating a policy, and that they present their reasons differentially depending on those cues. Attending to, and integrating, normative information about how to evaluate a policy reflects the importance of what is activated in this context and is distinct from the primarily cognitive explanations that have been offered in the past

(Chong, Citrin, & Conley, 2001; Young, et al. 1991). Study 2 was designed to further tease apart the effects of cognitive priming and normative cues on policy evaluations.

Chapter 3

Study 2

Overview and Predictions

The primary purpose of Study 2 was to examine the independent effects of normative cues about the appropriate way to evaluate a policy and cognitive accessibility of a particular mode of thinking on people's policy evaluations.

Hypothesis 2 stated that these two constructs would exert independent biasing effects on people's evaluations of a relevant policy, and Study 2 was designed to examine these independent effects.

To examine these independent effects, I primed participants so that their self-interest or their values were more cognitively accessible (or they were part of a neutral control group) and then exposed participants to normative information. The prime was completed by having participants complete a word scramble task in which participants unscrambled 20 different words. In the *neutral prime condition*, the words in the scramble were all neutral (e.g., GRASSY, PAINTING, FLOWERS). In the *self-interest prime condition*, 16 of the 20 words were related to protecting financial self-interest (e.g., SECURE, SAVINGS, INVEST, PROTECT, ASSET). Lastly, in the *values prime condition*, 16 of the 20 words related to values surrounding race relations (e.g., LAZY, WELFARE, PUSHY). See Appendices F, G, and H for word scrambles and answers. A word scramble task was employed to remove a normative component from the prime, which previous research had failed to disentangle (Chong, Citrin, & Conley, 2001; Young, Thomsen, Borgida, Sullivan, & Aldrich, 1991).

After having been primed, participants read about the same fictitious policy used in Study 1, which had both financial and value-laden implications for participants. Then, participants were exposed to one of the three social cues used in Study 1 that suggested that a particular mode of thinking was more normatively appropriate. Thus, participants were primed so that a self-interested or value-oriented mode of thinking was more cognitively accessible before they read about the proposal (or they were in the neutral control group), and were then exposed to a normative cue that suggested that a particular mode of thinking was more normatively appropriate.

Study 2 thus employed a 3 (prime type) X 3 (cue type) fully-crossed design to tease apart the effects of priming and normative social cue on the expression of self-interest or values on policy evaluations.

Pilot Testing

Paper and Pencil Testing

Before beginning data collection for Study 2, I wanted to find preliminary evidence that the word scramble successfully primed participants so that a self-interested or value-oriented mode of thinking was more cognitively accessible. As I developed the word scramble tasks for length, difficulty, and validity, different sets of participants completed the word scramble task via paper and pencil, and then rated different stimuli involving different ambiguous targets and different ratings. The effect sizes from the paper and pencil testing sessions were then meta-analyzed to determine the average effect size and the variance across samples due to sampling error.

Participants. To test whether the self-interest word scramble successfully primed participants to think of their self-interest, 193 total participants at the University of Minnesota participated in 10 different studies. In this sample, 122 participants were female and the average age was 20.75 years.

To test whether the value word scramble successfully primed participants, 138 Caucasian participants participated across 10 studies. Eighty-eight participants were female and the average age was 21 years.

Measures: Self-Interest Priming Pilot. Of the 10 studies, 9 involved having participants complete a neutral or self-interest word scramble, reading about an ambiguous target, and then rating his motives on different labeled scales. Ambiguous targets included Robert who opposes a tax increase to bus minority students across town, James who opposes a tuition increase for all students so that minority students can attend at a reduced cost, Darren who buys a more inexpensive home in a multicultural neighborhood, and Jason who opposes hiring from outside his company to increase the chances of hiring a minority candidate for a managerial position. In all scenarios, the target's motivations, rationale, and intentions were purposefully left unstated. See Appendix I for a description of all ambiguous targets and the different measures. Participants rated how financially-concerned the target was, and responses were compared between those who completed the neutral word scramble and those who completed the self-interest word scramble. I hypothesized that if the word scramble was working, then those who completed the self-interest word scramble would rate the target as being more concerned about his financial self-interest.

The tenth study was a word completion task. Participants completed a neutral or self-interest word scramble and then completed word stems that could be completed in a self-interested way or not. For example, M___ TARY can be “MONETARY” OR “MILITARY.” I hypothesized that if the self-interest word scramble prime was working, then participants would complete more of the words in the self-interested way than participants who completed the neutral word scramble. Appendix J includes all word completion measures and answers.

Measures: Values Priming Pilot. The method for testing the validity of the values scramble was the same as the self-interest scramble, but with different dependent measures. In 9 of the studies, participants either completed a neutral word scramble or a values word scramble, and then rated the same ambiguous targets on how value-oriented they were. I hypothesized that completing the values word scramble would result in higher values ratings of the targets. In the tenth study, participants completed the neutral or the values scramble and then completed word stems that could be completed in a values-laden way or a neutral way (“RACI___” could be “RACISM” or “RACING”). The number of words that were completed in a prime-congruent way were calculated for each.

Results. Results were meta-analyzed across samples using bare-bones meta-analysis, which computes the average effect size across studies and corrects for sampling error (Hunter & Schmidt, 2004). See Table 8 for a description of the samples, means, and *d*-values for testing the self-interest prime, and Table 9 for the samples testing the values prime.

For the self-interest word scramble, the sample-size-weighted mean effect size across the 10 samples was $d=.351$. The residual standard deviation of effect sizes (i.e., the standard deviation of the 10 effect sizes after subtracting sampling error variance) was .113. This residual standard deviation is used to calculate a credibility interval, which describes the range within which a given percentage of d -values unaffected by sampling error are expected to lie. Meta-analytic convention is to calculate an 80%⁴ credibility interval, which was .206 to .496. This suggests that once sampling error is accounted for, the expected range of effect sizes is above zero. Furthermore, sampling error variance accounted for 95.84% of the observed variance across the 10 effect sizes, suggesting that no substantive moderators of the mean effect size exist and the majority of the variance across effect sizes was due to sampling error. Based on this evidence, I concluded that the self-interest prime was effectively biasing participants' thoughts such that financial self-interest concerns were more cognitively accessible and biasing their interpretations.

For the values word scramble, the findings were more nuanced. The sample-size-weighted mean effect size across the 10 samples was $d=.159$, and the 80% credibility interval was .158-.158 because 100% of the variance was accounted for by sampling error. Although this average effect size is smaller, the correlation between the effect size and when the values data were collected was strong and positive ($r=.52$). This is important because across the ten studies, the word scramble manipulations were being refined, indicating that the later manipulations were more effective than the

⁴ The 90% credibility interval also did not include zero.

earlier ones. In fact, among the last 6 data collection efforts, the sample-size-weighted mean effect size rose to $d=.254$ (with 105 White participants). Once again, in this latter analysis all of the variance was accounted for by sampling error, so the 80% credibility interval is .254-.254. Based on this evidence, I concluded that the values word scramble was also biasing participants' thoughts such that value-oriented thoughts behind race relations were more cognitively accessible and were biasing participants' thinking.

Online Testing

Although research comparing findings from the Internet and from controlled laboratory settings indicate that the two can be comparable (Birnbaum, 2004), I wanted to ensure that the word scramble priming manipulation also worked via online survey. Because participants are not in a controlled laboratory, participants who complete the word scramble online may be more distracted and the priming manipulation may not be as robust. Thus, I also tested the efficacy of the word scramble primes online.

Participants. The study was posted on a website for undergraduate Psychology students to earn extra credit for participation in research studies. Additionally, I contacted instructors teaching Introduction to Chemistry and Introduction to Political Science asking them to send a description of the study and my contact information. Two hundred and thirty-two undergraduates at the University of Minnesota participated in the survey in exchange for 1 extra credit point in a psychology course or for a \$5 money order. The mean age of participants was 20.25 years with a range of 18 to 59 years. The majority of participants were women (n=151 women) and self-identified as Caucasian (n=189). Additionally, 22 participants identified as Asian-Americans, 9 as

Black/African-Americans, 2 as Latino/Hispanics, 2 as Native American/American-Indians, and 8 chose “Other” for race. Because the dependent measure was an evaluation of a proposal that differentially affected students based on race and year in school, I removed non-Whites and seniors from analyses. This resulted in a sample of $N=165$ with a mean age of 19.93 years and 105 women.

Procedure and Measures. If participants contacted me for more information about the survey, I sent them a link with a request to take the survey in a quiet room where they would not be interrupted. After assenting to take the survey, participants were taken to a screen that provided a general overview of the study and asked them to complete the survey in a quiet room with no distractions. After reading this screen, the next screen once again requested that participants complete the survey in a quiet setting with no distractions. Thus, participants were all asked at least twice to take the survey in a quiet location with minimal distractions.

The survey was a shortened version of that used in Study 1. The first series of questions asked participants demographic information including their age, sex, race, parents’ income, year in school, how many hours per week they work for pay, and how many forms of financial aid they received (see Appendix C). Then, participants answered the following individual difference measures: the Protestant Work Ethic Scale (Katz & Hass, 1988; $\alpha=.72$), Social Dominance Orientation (Sidanius & Pratto, 1999; $\alpha=.92$) and several other items that were not employed in analyses.

Participants were then told that repeatedly answering questions about themselves could bias their future answers, but that this bias could be attenuated by

completing a challenging mental task. They then completed one of the three word scrambles developed during paper and pencil piloting (see Appendices F, G, H). After completing the word task, they were shown the correct answers for the words, and then read about the fictitious proposal. Then, they immediately answered questions assessing their support for the proposal (for this scale $\alpha=.93$), and then answered the Bases Scale used in Study 1. They answered the subjective self-interest scale ($\alpha=.82$) and were finally asked what they believed the purpose of the word scramble was (open-ended responses).

Results. Before analyzing data, 23 participants who had detected the true reason behind the word scramble were removed from analyses. The final sample for analyses, then, included White non-seniors who did not detect the true reason for the word scramble, $N=142$, $M_{\text{age}}=19.58$ years and 87 women. Fifty-three participants completed the neutral word scramble, 42 completed the self-interest word scramble, and 47 completed the values word scramble.

The scales extracted from the factor analysis of the Bases Scale in Study 1 were tested in this sample, but the resulting alpha for the Group Self-Interest Basis composite was unacceptably low ($\alpha=.38$), so the scale was factor analyzed again in this sample using principal axis factoring and promax rotation. This second factor analysis resulted in three factors with eigenvalues above 1.00, but the third factor comprised only one item, “Whether the proposal is fair or not.” Thus, two composites were extracted and the rest of the items were examined as single items. Figure 6 shows the scree plots for the actual and randomly generated data as a result of these factor analyses.

The first factor accounted for 35% of the variance and comprised the two items “Whether diversity is important for society” and “Whether diversity is important to me.” The Diversity Basis scale ($\alpha=.92$) was once again negatively correlated with participants’ SDO scores ($r=-.54, p<.001$). The second factor was the same as in Study 1 – the Personal Self-Interest Basis Scale. It accounted for 20% of the variance and included “How much it will affect me financially” and “Whether I can afford a 10% tuition increase.” Reliability for this scale was also acceptable ($\alpha=.85$).

I hypothesized that the self-interest word scramble task would enhance participants’ own levels of self-interest such that they would report being the most affected by self-interest on the Personal Self-Interest scale, and would generally report being more concerned about the affordability of the proposal for others. I also hypothesized that participants who completed the values word scramble would report being the most affected by diversity concerns on the Diversity Basis scale, and would be more concerned about whether the proposal was fair and whether it promoted equality. To test these hypotheses, I predicted participants’ answers to the various scales in an ANCOVA with prime type as the predictor, controlling various individual difference variables, as necessary.

Results suggest that the word scramble primes biased participants’ thinking, but in surprising ways. When controlling for financial strain, prime type exerted a near-marginal effect such that participants who completed the self-interest word scramble reported being *less* self-interested on the Personal Self-Interest Scale than participants who completed the values word scramble ($M_{\text{neutral}}=7.27, M_{\text{self-interest}}=6.89, M_{\text{values}}=7.85$,

$F(2, 138)=2.23, p=.11$). However, when I entered subjective self-interest scores as the covariate instead of objective financial strain, this difference became significant, with post hoc analyses revealing that participants who completed the values word scramble being more concerned about their personal self-interest than participants in the neutral group and self-interest prime group ($M_{\text{neutral}}=7.11, M_{\text{self-interest}}=7.11, M_{\text{values}}=7.83, F(2, 138)=3.40, p<.05$).

When predicting Diversity Basis Scores and controlling for SDO, prime type exerted a significant main effect ($M_{\text{neutral}}=6.42, M_{\text{self-interest}}=5.38, M_{\text{values}}=6.80, F(2, 138)=6.03, p<.01$). Post hoc analyses revealed that completing the self-interest word scramble made participants significantly less concerned about diversity than participants in both the neutral condition and the values prime condition. With respect to the remaining single items in the Bases Scale, only one was significantly predicted by prime type: “Whether the proposal is fair or not.” After controlling for PWE scores, analyses revealed that participants who completed the self-interest prime were significantly less concerned about fairness than those in the neutral group and the values prime group ($M_{\text{neutral}}=6.78, M_{\text{self-interest}}=5.47, M_{\text{values}}=7.07, F(2, 138)=5.24, p<.01$).

Taken together, the results from the paper and pencil pilot and online pilot test of the word scramble priming manipulation strongly suggest that the word scramble task effectively primes participants, but in nuanced ways. I interpreted the results from the paper and pencil pilot to mean that the self-interest word scramble enhanced participants’ awareness of self-interested thinking, and that the values word scramble pushed participants to think about race-related values such as diversity. The online pilot

suggested that the word scrambles worked differently when participants had to interpret their own motives. Interestingly, the self-interest word scramble seems not to heighten participants' own self-interested concerns, but instead to dampen participants' sense of values. Although participants in this condition were no more likely to rate themselves higher on self-interested concerns, completing the self-interest word scramble seemed to make them less concerned about value-oriented reasoning. By contrast, the values word scramble did not heighten value-related thinking, but did seem to heighten participants' sense of personal self-interest.

It is possible that in a domain that is as complex as personal attitudes toward the value of racial diversity, priming self-interested concerns and value-oriented concerns has more complicated effects on personal cognitions than when evaluating ambiguous targets. Participants' attitudes toward funding minority scholarships may be linked to many cognitive constructs, which also may have been activated when participants completed one of the word scramble primes. For example, priming participants to adopt a value-oriented mode of thinking before evaluating the proposal may have made value-laden thinking more accessible, but participants may not want to express value-laden thinking in this particular domain and therefore exaggerated their self-interested concerns (as I argued may have been the case for the secondary evidence presented by Ratner and Miller, 2001).

Future research should investigate the processes behind priming personal self-interested concerns versus value-laden reasoning. In the meantime, the evidence from both pilot studies supported the idea that the word scramble priming manipulations

successfully biased participants' thinking, regardless of whether the word scramble task was completed in a laboratory setting or on the Internet. Thus, I collected data for Study 2.

Method

Participants

Participants were 640 undergraduates at the University of Minnesota who completed the survey in exchange for two extra credit points in a psychology course or for a \$5 money order and a chance to win a \$25 gift card to a popular store. The mean age of participants was 20.53 years with a range of 18 to 47 years. Most participants (n=529) self-identified as Caucasian; 13 as Latino/Hispanic, 17 as African-American, 55 as Asian-American, 3 as Native American and 20 chose "Other" for race.

Again, because the primary dependent measure in Study 2 would be support for a proposal to raise tuition to fund minority scholarships, 226 non-Whites and seniors were removed from analyses. Additionally, 41 participants who detected the true priming nature of the word scramble were also removed. This resulted in a final sample of 367 White participants (249 were women) with a mean age of 19.75 years (ranging from 18 to 47 years).

Procedure and Measures

All participants learned about the survey by visiting a website that listed research participation opportunities, or they contacted the researcher who sent them information with the study link. Participants read the Consent Form online and assented

to complete the survey. As in the pilot, participants were asked twice to take the survey in a quiet place before the survey began.

The survey was the same as that used in Study 1, with the exception that the self-interest word scramble and values word scramble developed during piloting was substituted for two-thirds of the participants (see Appendices F, G, and H).

Participants first answered demographic questions about themselves including age, sex, race, and year in school. To assess objective self-interest, participants answered how many hours they worked for pay per week and how many forms of financial aid that they received. Additionally, participants answered individual difference questions about themselves including the Protestant Work Ethic Scale (Katz & Hass, 1988, $\alpha=.69$), Social Dominance Orientation Scale (Sidanius & Pratto, 1999; $\alpha=.89$) and a number of other measures that were not included in analyses.

After completing the individual difference items, participants were once again informed that repeatedly answering questions about the self could introduce bias that could contaminate their answers to the rest of the survey. As such, they were instructed to complete a word scramble task to help reduce this bias. One-third of participants completed the neutral word scramble, one-third completed the self-interest word scramble, and the last third completed the values word scramble. Upon completing the word scramble they were shown what the answers were and clicked “Continue” to read about the proposal.

Participants read about the fictitious proposal to raise tuition by 10% in order to fund minority scholarships, and were asked to read comments from other students as a

guide for the length and clarity of their own written responses, as in Study 1. Again, one-third of participants read the neutral comments, one-third read the self-interested comments, and the last third read the value-oriented comments. Comments were made to appear as though they had been written by real students by not employing proper sentence case for some of the comments. Participants then wrote in their own responses to the proposal. Then, participants answered the same closed-ended items used in Study 1 to evaluate their support for the proposal ($\alpha=.95$). This composite measuring support for the proposal was the primary dependent measure for analyses.

Next, participants answered questions on the Bases Scale, questions designed to assess their subjective self-interest; that is, their subjective appraisal of how much the proposed tuition increase would affect them ($\alpha=.88$). Then, they answered questions to determine their perception of how others considered the proposal and, lastly, indicated why they believed that the word scramble was included in the study.

Results

Hypothesis 2 stated that social norms about the normatively acceptable way of thinking about a policy, and cognitive accessibility of a mode of thinking, each exert independent biasing effects on people's evaluations of a relevant policy. To test the unique effects of participants' objective self-interest and SDO on their proposal evaluations in each condition, I selected for participants in each of the 9 cells and regressed support for the proposal on participants' objective self-interest and their SDO

scores^{5,6}. The resulting 9 models informed me as to whether participants' self-interest and SDO scores were significantly related to the dependent measure compared to $b=0$. The number of participants, mean support for the proposal, and standard deviations for each cell are presented in Table 10. Regression weights from each of the 9 individual regressions are presented in Table 11.

Additionally, to statistically compare b -weights between cells, I employed dummy-coded regression analyses. If I was interested in comparing b -weights between two cells, I dummy-coded one cell so that it served as the referent, entered centered financial strain and centered SDO scores, and the interaction terms for each of these continuous variables with each of the other non-referent cells. The resulting model informed me as to the main effect of financial strain and SDO in the referent cell and

⁵ In each of the 9 cells, the assumptions regarding multiple regression were checked before analyses and these were met with one exception: in Cell 3 (neutral prime, values cue), the residuals were not ideally normally distributed. Cell 3 had a comparatively lower sample size, which suggests power in this cell may have been diminished.

⁶ I chose to use participants' objective (not subjective) self-interest because I was interested in the nonconscious effect of the priming and cue manipulations on the relationship between participants' self-interest and their evaluations of the proposal. The subjective self-interest measure involved participants consciously reporting the extent to which they were personally affected by the proposal, whereas the objective financial strain composite quantified the extent to which participants reported financial neediness before learning about the proposed tuition increase. I chose participants' SDO scores because the online pilot indicated that the priming manipulations resulted in differences in participants' self-reported valuing of diversity on the Diversity Basis Scale, and SDO was consistently negatively correlated with this measure.

how the b -weights in the other cells compared to the referent. These analyses allowed me to understand if the effect of self-interest in one cell was significantly stronger or weaker than whichever cell served as the referent. It is worth noting at this point, however, that given the sample sizes in each of the 9 cells, these t -tests to detect significant changes in b -coefficients are only powerful enough to detect large effect sizes (see Cohen, 1992).

The Effect of Self-Interest and Values in the Neutral Prime/Neutral Cue Condition

First, to get a “baseline” measure of the effects of self-interest and values on the proposal evaluation, participants’ support for the fictitious measure was regressed on their objective financial strain and SDO scores in the condition in which they were not primed (neutral word scramble) and were exposed to neutral cues (i.e., the neutral prime/neutral cue condition). In this baseline condition, there was a significant negative effect of objective financial strain on participants’ policy evaluations ($b=-.33, p<.01$) such that, as expected, those experiencing more financial strain were more opposed to the proposal. Additionally, the higher participants’ SDO scores were and the more opposed they were to diversity and equality, the more opposed they were to the proposal ($b=-.69, p<.001$).

The Independent Effects of Self-Interest Priming and Self-Interested Norms

When participants were primed to adopt a self-interested mode of thinking by completing the self-interest word scramble but were not exposed to a particular norm (self-interest prime/neutral cue condition, Cell 4), objective financial strain was not related to participants’ support for the proposal ($b=.14, p=ns$). Thus, when primed to

consider their self-interest, participants were *less* affected by financial concerns when evaluating the proposal. Follow up analyses indicates that this difference is significant compared to the neutral prime/neutral cue condition (i.e., participants in this cell are significantly less concerned with self-interest than those in the neutral prime/neutral cue condition; $b_{\Delta}=.48, p<.05$).

With respect to the independent effect of normative cueing, when participants completed the neutral word scramble but were exposed to self-interested cues (neutral prime/self-interest cue condition, Cell 2) there was a non-significant negative relationship between financial strain and their evaluation of the proposal ($b=-.21, p=ns$), though this does not differ from the neutral prime/neutral cue condition ($b_{\Delta}=.12, p=ns$).

In sum, it appears that priming participants with their self-interest made them significantly less self-interested, and that cueing participants with a norm of self-interest also attenuated their self-interested concerns compared to the baseline neutral prime/neutral cue cell. Based on previous work, I anticipated that participants in Cell 2 (neutral prime/self-interest cue), at least, would be significantly *more* affected by their self-interested concerns because it was a conceptual replication of earlier studies (Chong, Citrin, & Conley, 2001; Young, et al., 1991). However, these findings suggest that either activating a self-interested mode of thinking via a self-interest prime or activating an awareness of a norm of self-interest resulted in participants being less affected by their self-interested concerns. Follow-up analyses indicate that the effect of self-interest in Cell 2 (neutral prime/self-interest cue) is marginally more negative than the effect of self-interest in Cell 4 (self-interest prime/neutral cue), $b_{\Delta}=-.36, p<.10$, but

this difference is largely due to the fact that priming self-interested concerns in Cell 4 significantly attenuated the effect of self-interest in the opposite direction than was hypothesized.

The results from the online pilot of the word scramble priming manipulations suggested that priming a self-interested mode of thinking may also have an effect on how value-oriented participants subsequently think, and the present results support this finding. In the self-interest prime/neutral cue condition (Cell 4), participants were significantly less affected by SDO concerns than participants in the neutral prime/neutral cue condition ($b=.38$, $p=ns$; $b_{\Delta}=1.07$, $p<.01$). Thus, this was similar to results found in the online pilot, in which participants who completed the self-interest word scramble reported being less affected by their value-laden concerns.

When participants were not primed but were cued with a norm of self-interest (Cell 2), however, their SDO scores remained significantly related to their evaluations of the tuition increase such that participants with higher SDO scores were significantly more opposed to the proposal ($b=-1.14$, $p<.001$). This relationship did not differ significantly from the neutral prime/neutral cue condition; cueing participants with a norm of self-interest did not significantly enhance the effect of SDO beyond the baseline. However, the effect of SDO in Cell 2 was significantly stronger than in Cell 4 ($b_{\Delta}=-1.51$, $p<.001$). In other words, cueing participants to believe that there is a norm of self-interest results in SDO effects that are significantly stronger than when participants are merely primed to consider their self-interest.

The Independent Effects of Values Priming and Value-Oriented Norms

Among participants in the values prime/neutral cue condition (Cell 7), SDO was no longer significantly related to their proposal evaluations ($b=.08, p=ns$). Compared to the neutral prime/neutral cue condition, this difference is significant ($b_{\Delta}=.77, p<.05$). As was the case with priming self-interested modes of thinking (in Cell 4), priming value-oriented modes of thinking resulted in significantly attenuating the effect of SDO on participants' support for the tuition proposal.

When participants were not primed but were cued to believe that the normatively acceptable way to think about the proposal was via values (neutral prime/values cue; Cell 3), SDO was once again no longer significantly related to proposal evaluations ($b=-.45, p=ns$) though this did not differ from the neutral prime/neutral cue (Cell 1) condition. Comparing the effect of priming (Cell 3) versus cueing a norm of values (Cell 7) on SDO, there was no significant difference between these two conditions. Thus, priming values or cueing a norm of values did not result in significantly stronger SDO effects in one cell over the other.

With respect to the effects of priming a value-laden mode of thinking or cueing a normative belief that such thinking is appropriate on the relationship between participants' financial strain and their proposal evaluations, it appears that both manipulations resulted in nullifying the effects to near zero. In Cell 7 (values prime/neutral cue), $b=-.06, p=ns$ and in Cell 3 (neutral prime, values cue), $b=-.09, p=ns$. Neither of these b -coefficients differ from the neutral prime/neutral cue cell, or from each other. Recall that in the online pilot, participants who had completed the values

prime reported being the most self-interested on the Personal Self-Interest Scale. It appears that this effect did not result in participants primed with their values to actually behave in a more self-interested manner.

Thus, it appears in the present study that priming a value-oriented mode of thinking (in Cell 7) or cueing participants to believe in a norm of values (in Cell 3) resulted in attenuating both the effects of SDO and financial strain on participants' policy evaluations, as compared to the neutral prime/neutral cue condition.

Doubling Up: When the Primes and Norms Were Congruent

Participants in two cells were primed with a particular mode of thinking and were further led to believe that that mode of thinking was normatively acceptable. In Cell 5, participants were primed to consider their self-interest and were cued to believe that a norm of self-interest existed. In Cell 9, participants were primed to think in line with their values, and were led to believe that others believed that this was most normatively acceptable. I anticipated that in these cells, the mode of thinking that was primed and normatively sanctioned would at the very least be strongly related to participants' proposal evaluations, but results were mixed.

In Cell 5, when a self-interested mode of thinking was cognitively accessible and deemed to be normatively acceptable, I expected participants to be most strongly affected by their self-interest. However, there was no relationship between participants' financial strain and their proposal evaluations in this cell ($b=.08$, $p=ns$). Considering the results from Cell 4 (self-interest prime/neutral cue) and Cell 2 (neutral prime/self-interest cue) perhaps this weak relationship is not surprising; $b=.08$ lies squarely

between $b=.14$ and $b=-.21$, raising the possibility that priming participants' self-interested concerns pushed this relationship to be somewhat positive, but cueing a norm of self-interest moderated this effect.

In addition to a null effect of self-interest, participants' SDO levels in this cell also had no effect on their policy evaluations, $b=-.03$, $p=ns$. Again, this effect lies somewhere between the effects of SDO in Cells 4 (self-interest prime/neutral cue) and 2 (neutral prime/self-interest cue), as though priming participants' self-interested concerns dampened their SDO-style thinking, but reading fellow students' self-interested comments somehow made participants slightly more aware of their SDO-style concerns again.

In Cell 9, participants were primed with a value-laden thinking style and were cued to believe this mode of thinking was normatively acceptable. Participants' SDO scores were significantly negatively related to their proposal evaluations ($b=-.68$, $p<.05$), but this did not significantly differ from the neutral prime/neutral cue condition. Thus, whereas solely priming participants with a value-oriented mode of thinking significantly reduced the effect of SDO on proposal evaluations (in Cell 7), and only cueing a belief in a norm of values also attenuated the effect (in Cell 3), it appears that the combination of these two manipulations resulted in bringing the effect of SDO back to the same magnitude as in the neutral prime/neutral cue baseline condition.

In this cell, the relationship between participants' financial strain and their evaluation of the proposal was nonsignificant ($b=.19$, $p=ns$). This effect is also not surprising considering the findings from Cells 7 (values prime/neutral cue) and 3

(neutral prime, values cue), in which participants' financial strain was not related to their proposal evaluations in either cell (see above).

Conflicting Constructs: When the Primes and Norms Were Incongruent

Participants in Cells 6 and 8 received incongruent primes and normative information. In Cell 6, participants were primed to activate a self-interested mode of thinking, but were led to believe that the appropriate way of thinking about the proposal was with respect to values. In Cell 8, it was the converse: participants were primed to activate a value-oriented mode of thinking, but were led to believe in the existence of a norm of self-interest.

In Cell 6, participants' financial strain was not related to their evaluations of the tuition proposal ($b=.15$, $p=ns$). This is not surprising given that participants' self-interested concerns were not significantly related to their proposal evaluations when they were primed with self-interest (Cell 4) and cued to believe in a norm of values (Cell 2). Thus, the combination of these two manipulations did not change the pattern of results.

Participants in this cell did, however, demonstrate a significant negative relationship between their SDO levels and their evaluations of the proposal ($b=-.82$, $p<.001$). This significant negative relationship differs from what one would expect considering that cueing values alone did not result in a significant relationship (Cell 3), and merely priming a self-interested mode of thinking also significantly attenuated the effect of SDO (Cell 4). Follow up analyses indicate that this effect of SDO in Cell 6 significantly differs from Cell 4, when a self-interested mode of thinking was primed

($b_{\Delta}=1.20, p<.01$), but that it does not differ from Cell 1 (baseline condition) and Cell 3 (neutral prime/values cue condition). Thus, it appears that the unique combination of priming participants to consider a self-interested way of thinking but cueing a belief that values are more normatively acceptable strengthens the effect of SDO on participants' proposal evaluations, bringing it back to a magnitude that is similar to that in the baseline neutral prime/neutral cue condition.

In Cell 8, participants were primed to consider a value-oriented mode of thinking but were cued to believe in a norm of self-interest. In this cell, participants' financial strain was once again unrelated to their evaluations of the tuition increase. Thus, even though they are cued to believe that selfish thinking is appropriate, their own self-interest does not have a biasing effect on their thinking. Once again, this is not surprising considering that participants' financial strain was not significantly related when they were only cued to believe in a norm of self-interest (neutral prime/self-interest cue, Cell 2), or when they were primed to consider a value-laden way of thinking (values prime/neutral cue, Cell 7). Participants in this cell were, however, affected by their SDO levels ($b=-.87, p<.01$). Thus, in this cell activating a value-laden mode of thinking but exposing participants to a norm of self-interest did not dampen the effect of SDO on their policy evaluation; rather, it brought the effect of SDO back to the same magnitude as was found in the neutral prime/neutral cue condition. Recall that when participants were only primed to activate a value-laden mode of thinking in Cell 7, that the effect of SDO was significantly attenuated compared to the baseline condition. In fact, the effect of SDO in Cell 8 is significantly stronger than in Cell 7

($b_{\Delta}=.95, p<.01$), though it does not differ from Cells 1 (neutral prime/neutral cue) or 2 (neutral prime/self-interest cue).

Discussion

Study 2 was designed to examine the independent effects of priming a particular mode of thinking versus normatively sanctioning a mode of thinking on people's policy evaluations. *Hypothesis 2* stated that both cognitive priming and cueing a norm would exert independent effects on participants' policy evaluations, which previous work had confounded. As such, in Study 2 participants were primed with a self-interested mode or value-oriented mode of thinking via a word scramble task (or they were part of a neutral condition) and then read about an on-campus initiative to raise tuition for minority scholarships. Then, participants were cued to believe that a norm existed sanctioning a particular mode of thinking – a norm of self-interest, a norm sanctioning value-laden thinking, or a neutral condition in which no norm was advocated. Lastly, participants evaluated the policy. Thus, Study 2 employed a 3 (prime type) X 3 (norm type) fully-crossed design, resulting in 9 cells with unique combinations of primes and norms. To investigate the independent effects of priming versus cueing a norm, participants' attitudes toward the proposal were regressed on their objective financial strain and their SDO levels in each of the 9 cells. This resulted in *b*-coefficients measuring the effect of financial strain and SDO on proposal evaluations in each of the 9 cells, which were then statistically compared to each other as appropriate.

In the neutral prime/neutral cue condition, participants' financial strain and SDO levels were significantly predictive of their attitudes toward the tuition proposal as

expected. The more financially strained participants were, the more they opposed the proposal and the more participants opposed diversity and equality, the more they opposed the proposal. Results in this cell provide a baseline for understanding subsequent effects.

With respect to the effects on the relationship between participants' financial strain and their evaluations of the proposal, it is important to note that all manipulations rendered participants' levels of financial strain nonsignificant (see Table 11). That is, priming self-interested and value-oriented modes of thinking and cueing norms sanctioning those modes of thinking (and every combination thereof), resulted in participants' objective financial strain levels no longer being related to their evaluations of the proposal. As such, it is difficult to comment on the independent effects of priming self-interest and cueing a norm of self-interest on the relative strength of objective self-interest on participants' proposal evaluations.

There are a few possible reasons for why participants' financial strain no longer related to their evaluations of the proposal in each of the primed and cued cells. First, completing the self-interest word scramble may have activated a sense among participants that they were financially secure. I chose words for the self-interest word scramble to activate concerns about protecting one's own financial self-interest. A second inspection of the words chosen, however, reveals the possibility that the words worked to make participants feel better about their respective financial situations (see Appendix G). I intended for words like "SECURE" and "SAVINGS" to invoke a desire among participants to secure themselves, to protect their savings. However, it is

possible that the word scramble worked to activate a sense that they were secure and that they had savings. Similarly, unscrambling words like “MONEY,” “CREDIT,” “WEALTH,” “THRIFT” AND “ASSET” may have activated a sense among participants (even student participants) that they had money, credit, wealth, and assets, and that they were sufficiently thrifty. Completing the self-interest word scramble, then, may have caused participants to be less affected by their objective financial strain because of an unconscious activated sense of financial security.

Second, as I mentioned when discussing the online pilot, priming self-interested concerns may have more complicated effects on personal cognitions than evaluating the motives of ambiguous targets. Activating self-interested concerns may have triggered other thoughts and modes of thinking, which did not occur among participants in the neutral prime/neutral cue condition.

Third, this may be especially true when the domain is as complicated as evaluating a personal cost for the benefit of racial equality. Even if the self-interest word scramble had the desired effect of enhancing participants’ need to protect their own self-interest, it is possible that subsequently reading about an affirmative action type policy subsequently triggered related cognitions that somehow dampened the effect.

Fourth, the normative cues used to establish a norm of self-interest in the present study were more heavy-handed than used in previous work. As stated, Chong, Citrin, & Conley (2001) and Young, et al (1991) priming manipulations may actually have provided social cues advocating self-interested thinking, resulting in self-interest having

a stronger effect on participants' policy evaluations congruent with the cue. The differences in the present Study 2 and their findings may be a result of the very strong nature of the cue manipulations used in Study 2. The cue manipulations strongly advocated a norm for a particular way of thinking (e.g., "What makes me mad about this is how much this is going to cost me. People who focus on whether it's fair are just out of touch with reality. It's all about how much it costs and what I get out of it"). Although the conversation overheard by participants in the Young, et al. (1991) study had a similar injunctive tone, it was only expressed by one person. By contrast, in the present study a norm of self-interest was established by 7 different fellow students. Thus, participants in this study may have experienced a form of psychological reactance (Brehm, 1966) upon hearing from several peers that there was only one appropriate way to consider the proposal (a self-interested way), resulting in an attenuation of the relationship between self-interest and their attitude toward the proposal. Future research should explore the possibility that a very strong injunctive norm of self-interest causes psychological reactance.

With respect to the effects on the relationship between participants' SDO levels and their evaluations of the proposal, results were mixed. As was the case with the effect of priming self-interest, priming a value-oriented mode of thinking alone (values prime/neutral cue, Cell 7) significantly attenuated the effect of SDO on participants' proposal evaluations. And again, the values word scramble may have had the unintended effect of *enhancing* participants' desires for diversity and equality which would naturally moderate the effects of SDO. Although the values word scramble

included words like “LAZY,” “WELFARE” and “PUSHY,” it also included words like “FAIRNESS,” “EQUALITY” “OPPORTUNITY” and “PREJUDICE.” “FAIRNESS,” “EQUALITY,” AND “OPPORTUNITY” may have increased participants’ desires for those ideals, and “PREJUDICE” may have been construed as a pejorative construct that participants wanted to avoid. Completing the values word scramble alone, then, may have increased participants’ personal desires to be non-prejudiced and dampened the effects of SDO on proposal evaluations.

When participants were cued to believe in a norm of values (neutral prime/values condition, Cell 3), SDO was negatively related to participants’ proposal evaluations, though not significantly so ($b=-.45, p=ns$). Although one might question whether this effect is also due to creating too strong a norm of values with the values cues (as I proposed was possible with cueing a norm of self-interest), the same values cues resulted in significant relationships between SDO and proposal evaluations in the other values cue conditions (Cells 6 and 9). Instead, it is possible that this relationship is not significant because of a lack of power. This was the largest nonsignificant effect and as noted above, in Cell 3 residuals were not normally distributed and sample size was on the lower end at $n=33$ participants. When I was less stringent with the criteria and included participants who had detected the true nature of the word scramble priming manipulation, this effect increased and was marginal ($b=-.46, p=.10$).

Although participants’ levels of SDO were not related to their proposal evaluations in Cell 3 (neutral prime/values cue) or Cell 7 (values prime/neutral cue), it was significant in other conditions under surprising circumstances. First, in Cell 2,

when participants were not primed but were exposed to a norm of self-interest, their SDO levels were very strongly related to their proposal evaluations ($b=-1.14, p<.001$). Thus, although in this cell cueing a norm of self-interest attenuated the relationship between participants' self-interest and their evaluations of the proposal, their SDO levels remained significantly related. There are a few possible reasons for this result. Once again, the injunctive nature of the cues to which participants were exposed may have caused psychological reactance among participants. In this domain, participants may have read the self-interested cues, experienced reactance, and evaluated the proposal in light of their values.

It is also possible that participants highest in SDO were especially sensitive to a norm that sanctions self-interested thinking. In addition to believing in hierarchy and disregarding the importance of equality, people who are high in SDO personally desire a dominant role in society (Sidanius & Pratto, 1999). Thus, reading cues that normatively sanctioned self-interested thinking may have enhanced the effects of SDO on participants' proposal evaluations. To rule out the possibility that this finding was due to the particular nature of SDO, analyses were re-run in this cell with objective financial strain and participants' PWE scores as predictors. When participants' PWE scores were employed as a measure of values instead of SDO, that pattern in this cell was the same. PWE scores were still significantly negatively related to proposal evaluations while objective financial strain was not significantly related ($b_{PWE}=-.63, p<.05$ and $b_{\text{financial strain}}=-.28, p=\text{ns}$). It appears, then, that the strength of participants' values to their proposal evaluations in Cell 2 was not merely due to high SDO

participants being especially sensitive to self-interested norms. Rather, it appears that cueing a norm of self-interest may make participants' values also more cognitively accessible.

This process may also explain why participants' SDO levels were significantly related to their attitudes toward the tuition proposal in Cell 8, when participants completed the values prime and read self-interested cues. The values prime alone may have worked to enhance participants' desires for diversity, but reading the self-interested cues may once again have activated related values constructs. (Again, in this cell, participants' PWE scores were also significantly negatively related to their proposal evaluations, ruling out the possibility that this is merely the effect of high SDO participants being particularly sensitive to self-interested cues; $b_{\text{PWE}} = -.73, p < .01$, $b_{\text{financial strain}} = .28, p = \text{ns}$).

Participants' values (SDO) were not related in one condition with self-interested cues: Cell 5, self-interest prime/self-interest cue condition⁷. Whereas the self-interest cues enhanced the effects of SDO in the other conditions in which they were employed, they may have failed to elicit SDO-style thinking in this condition because of the unexpected effect of the self-interest prime. As I stated earlier, it is possible that the self-interest prime worked to instill a sense among participants that they were more financially secure than they would have been had they not completed the self-interest prime. Participants high in SDO levels may have completed the self-interest word scramble and, being most sensitive to status-related information, felt more financially

⁷ Neither were participants' PWE scores.

secure and as though they occupied a higher status in society. As such, reading the self-interested cues did not have the same effect of exaggerating the effect of values that it did in the other self-interest cue conditions.

Social Dominance Orientation remained significantly related to participants' proposal evaluations in two final cells: Cell 6 (self-interest prime/values cue) and Cell 9 (values prime/values cue). Although participants' SDO levels were not related to their proposal evaluations when they were only cued with their values (Cell 3), I believe this pattern of results speaks to the power of the value-laden cues in biasing thinking to be more value-oriented. (As I said earlier, the lack of significance in Cell 3 may have been due to a lack of power.) The value-laden cues that were opposed to the proposal were fairly individualistic, promoting the values of hard work and a fair chance for everyone. Such ideology could be used by those high in SDO to perpetuate hierarchy and legitimize inequality (Sidanius & Pratto, 1999). The comments that were for the proposal may have angered those high in SDO because they mentioned the value of diversity and the obligation to improve society by giving everyone an equal chance. Such arguments run contrary to ideologies of social dominance. Thus, although participants in Cell 6 may have felt better about their financial situations as a result of the self-interest prime, and participants in Cell 9 may have wanted diversity and equality more as a result of completing the values prime, reading the 7 value-laden cues ostensibly written by peers may have overridden the potentially ephemeral effects of the priming manipulations.

Chapter 4

The present studies were designed to enhance our understanding of the hypothesized role that social norms play in the expression of self-interest or values when evaluating a policy that addresses both types of concerns. Although the power of self-interest has long been afforded a primary role in explaining human behavior, the empirical research supporting this view is thin (see Mansbridge, 1990). In particular, research in political and social psychology strongly suggests that self-interest plays a nuanced role in human behavior, affecting policy evaluations when the consequences of a policy are substantial and/or clear (Sears & Funk, 1990a, 1990b, 1991), and acting as a stronger predictor for engaging in political behavior (see Crano, 1997a, 1997b).

In this thesis, I have focused on the extent to which social norms, if activated, may influence whether people express self-interested thoughts and behave in self-interested ways. Social norms may sanction self-interested or value-oriented thinking toward a policy, encouraging actors to behave in accord with those norms. This effect is not necessarily conscious, but may significantly bias people's cognitions such that they think in more self-interested or value-oriented ways in response to a policy.

This perspective on norms and self-interest differs from previous work. Miller and colleagues (Miller, 1999; Miller & Ratner, 1998; Ratner & Miller, 2001) argue for a perpetual "norm of self-interest" in which people behave in self-interested ways. According to this perspective, people misperceive self-interest as having a stronger effect on behavior than it truly does. Moreover, this belief is self-perpetuating and therefore causes people to behave in more self-interested ways than they otherwise

would. As such, Miller and his colleagues argue that there is a “norm of self-interest” that inspires self-interested behavior as both a descriptive norm and as an injunctive norm (Cialdini, Reno, & Kallgren, 1990). With respect to a descriptive norm, because people believe that everyone is affected by self-interested concerns, self-interest can be construed as an effective guide for behavior. As an injunctive norm, Miller argues that people believe that they should behave in self-interested ways, so they do. By contrast, I argued that social norms *vary* with respect to whether self-interested or value-oriented thinking is influential depending on which is more accessible in a given domain; not that there is a perpetual “norm of self-interest.” Additionally, I argued that these social norms have the potential to bias people’s thinking about a policy.

Salient social norms about the appropriate way to think about a policy may affect cognitions for normative reasons, but they may also affect thinking by simply making a mode of thinking more cognitively accessible. Previous researchers (Chong, Citrin, & Conley, 2001; Young, et al., 1991) have argued that priming self-interest and values constructs results in biasing people’s evaluations of a policy, but their evidence confounded social norms with cognitive primes. Thus, the present studies were designed to tease apart the effects of cognitive priming and social norms in biasing people’s thoughts about a policy.

Hypothesis 1 stated that the reasons people offer as accounts for their positions toward a policy would vary with respect to what is socially sanctioned. I tested this hypothesis in Study 1 by having participants read about a fictitious proposal for a one-time 10% tuition increase in order to furnish dwindling funds for minority scholarships,

and exposing participants to social cues that normatively sanctioned a particular style of thinking. Additionally, to further ensure that the effects were due to normative pressure and not cognitive accessibility, half of the participants believed that they would discuss their attitude positions with a fellow student. If participants wanted to conform to the social norm out of social concerns, then they should have offered norm-congruent reasoning, especially when they believed that they would be sharing their attitudes with a fellow student.

The results of Study 1 partially supported my hypothesis. When the cues indicated that fellow students valued self-interested reasoning, participants wrote more self-interested thoughts. Similarly, when the cues indicated that peers preferred value-oriented rationale, participants wrote more value-laden thoughts. Thus, participants wrote more norm-congruent comments, which is some evidence that they considered norms when presenting their arguments. Because there was no difference with respect to privacy condition, however, these effects may have been due to increased cognitive accessibility of self-interest and values.

Results predicting self-interested composites extracted from the Bases Scale, however, suggest that participants are willing to moderate their reported levels of self-interestedness in order to follow a norm. Participants reported being marginally more concerned about their Personal Self-Interest and whether others would be able to afford a 10% tuition increase when the cues indicated that self-interested reasoning was valued and when participants were in the “public” condition. Participants varied their stated rationale for their position to follow a norm of self-interest, enhancing their stated

concerns about self-interested thinking when they believed they would be sharing their ratings with a fellow student.

Thus, *Hypothesis 1* was partially supported. Participants offered more norm-congruent written comments overall, providing partial evidence that people are willing to modify their stated reasons for a policy attitude in accord with an activated social norm. They also marginally exaggerated their reported concerns about financial self-interest when they believed that they would be sharing their answers with a fellow student.

Findings from Study 1 also support some of Miller's arguments surrounding a "norm of self-interest" (Miller, 1999; Miller & Ratner, 1998; Ratner & Miller, 2001). In the "private" condition, participants uniformly rated themselves as very concerned about Personal Self-Interest regardless of the type of norm they were exposed to; even when participants believed that peers sanctioned value-oriented thinking, they rated themselves as similarly self-interested as those in the self-interest cue condition (and the neutral condition, for that matter). Thus, everyone rated themselves as being very self-interested, even when cues indicated other modes of thinking were more socially desirable. Moreover, participants in the self-interest cue condition marginally exaggerated how concerned they were about Personal Self-Interest and affordability when they anticipated sharing their ratings with another participant in the self-interest cue condition. As Miller suggested, participants conform to a norm of self-interest because they believe they ought to, which is supported by participants exaggerating their self-interested concerns in the "public" condition.

Results from Study 1 partially supported my hypothesis that people would present self-interested or value-oriented reasoning for a policy stance in accordance with an activated social norm. Results also support Miller's arguments that people overestimate the power of self-interest over their own behaviors (Miller, 1999; Miller & Ratner, 1998; Ratner & Miller, 2001). However, results from Study 1 do not address the question of whether activated social norms cognitively bias people's evaluations of a proposal independent of a cognitive priming effect. As stated earlier, the fact that participants offered more value-oriented comments in the value cue condition and more self-interested comments in the self-interest cue condition may be a result of the cues making those modes of thinking more cognitively accessible. That is, reading value-oriented comments from other students may merely have made value-oriented thinking more salient in participants' minds, causing them to write more value-oriented comments because they came to mind faster, not because they believed it was more effective or appropriate to do so.

Study 2 was designed to test the independent effects of cognitive priming versus normative cues on policy evaluations. Hypothesis 2 stated that the salience of normative cues about the appropriate way of thinking (self-interested or value-oriented) would bias people's evaluations of a relevant policy, and that this effect would be independent of the cognitive accessibility of self-interested or value-oriented thoughts. To test this hypothesis in Study 2, I exposed participants to one of three cognitive primes via a word scramble (neutral, self-interest, and values), then had them read about the same fictitious proposal used in Study 1 so that the prime would bias their

cognitions surrounding the stimulus. Then, I exposed participants to one of three normative cues about the appropriate way to think about the policy (neutral, self-interest, and values). I measured their evaluations of the proposal and predicted their evaluations from their objective financial strain and their SDO scores in each of the resulting 9 cells.

Results from Study 2 were mixed. Participants' objective self-interest and SDO scores were negatively related to their evaluations of the tuition proposal in the baseline neutral prime/neutral cue condition, as was expected. But every manipulation thereafter rendered objective self-interest non-significant in predicting proposal attitudes, including the self-interest prime, the self-interest norm, and a combination of both. With respect to varying the strength of value-oriented thinking, the results were more mixed. As stated, participants' SDO levels were significantly negatively related to the proposal in the baseline condition; the more participants valued hierarchy and discounted equality, the more they were opposed to the proposal. Otherwise, SDO predicted proposal attitudes in somewhat inconsistent ways.

The pilot studies testing the priming manipulations suggested that the word scrambles successfully biased participants' evaluations of an ambiguous target, but that these effects did not necessarily extend to self-ratings. Combined with the results from Study 2, one can speculate about a few processes by which the word scrambles worked. First, as discussed earlier, the word scrambles may have activated appropriate constructs, but when participants then read the stimulus that personally affected them, other concerns surrounding affirmative action-type policies also may have been

activated. When it comes to matters of race relations and equal opportunities, the relationship between people's values, their self-interest, and their group interest likely overlap significantly and are difficult to tease apart (see Federico & Sidanius, 2002). Thus, after completing the self-interest word scramble, participants' personal self-interest concerns may have been activated, but then reading about a proposal to raise tuition to fund minority scholarships may have activated equally accessible concerns regarding equality and inequality, which may have overwhelmed their financial concerns. Similarly, after completing the values word scramble, participants' personal values regarding race may have been activated, but after reading about the proposal, related concerns about finances were also strongly activated. In this particular domain, then, it may have been too difficult to activate only one type of cognition and then gauge its independent effect on evaluations.

Second, as discussed earlier, the findings suggest the possibility that completing the word scrambles *enhanced* participants' desires for diversity and equality and made them feel *more* financially secure. It is also of course possible that both described processes took place; that after completing the word scrambles participants felt better about equality and diversity and about their own financial self-interest, and that subsequently reading about an affirmative action-type tuition proposal activated other related concerns.

In addition to the priming mechanisms perhaps operating in unintended ways, the cue manipulations in Study 2 may have operated differently than I expected. I anticipated that cueing a norm would cause participants to think in norm-congruent

ways, but my hypotheses were not consistently supported. As discussed earlier, it is possible that the self-interested cues somehow caused a nonconscious psychological reactance among participants in this complex domain, causing them to feel less self-interested, especially in this psychologically complex domain of race relations. The value-laden cues may have operated as intended, but in Cell 3 there may not have been sufficient power to detect significance.

Unfortunately, then, using this particular policy domain (race relations and educational opportunities) may have been a weakness in my design. It is likely that most participants had existing cognitive structures related to affirmative action-type policies that were all activated upon reading the stimulus. These likely included self-interested concerns and value-laden concerns, but both types of concerns may have been differentially activated among participants depending on the particular content of their existing beliefs. Additionally, other cognitive structures may also have been activated that were not examined in the present study. Thus, the topic alone may have activated cognitive processes unique to each participant that were too strong and salient for the priming and cue mechanisms to overcome. Future research should explore these research questions employing issue domains that most participants have not already considered (e.g., regulation of unknown products).

Although results from Study 2 did not clearly support my hypotheses, they did demonstrate some support for Miller's arguments regarding a "norm of self-interest" (Miller, 1999; Miller & Ratner, 1998; Ratner & Miller, 2001). Recall that participants' objective financial strain was rendered nonsignificant with each manipulation.

However, the same was not true for the effect of participants' subjective self-interest (their conscious awareness) of their proposal evaluations. In Cell 1 (baseline condition), participants' subjective self-interest was negatively related to their evaluations of the proposal ($b=-.30, p<.05$), as was the case with objective financial strain. But this relationship remained significantly negative in several other conditions (Cells 5, 6, 7, 8, and 9, see Table 12). Thus, when considering participants' *conscious* awareness of how they were personally affected by the tuition increase, participants often demonstrated a strong relationship between their conscious perception of their self-interest and their evaluation of the proposal, even though there was no objective relationship between their financial strain and their proposal evaluations. In this way, participants consciously overestimated how much they were affected by their self-interest, as Miller argued that people are wont to do.

In fact, additional analyses on the Bases Scale revealed that participants generally tended to overestimate how much they were affected by their self-interested concerns. Participants' Personal Self-Interest scores were calculated from the Bases Scale (10-point scale, Personal Self-Interest Basis $\alpha=.86$) and regressed on the dummy-coded condition such that the baseline condition (Cell 1) served as the referent, with objective financial strain also entered to serve as a covariate. The model specified how much participants reported being affected by Personal Self-Interest in the baseline condition, and whether participants' Personal Self-Interest scores significantly deviated from that of the baseline condition. I was interested in whether participants' Personal Self-Interest scores deviated from the baseline because results from Study 2 indicated

that participants' objective financial strain was only related to their proposal evaluations in the baseline condition and not in any other condition. Thus, if participants' self-reports on the Personal Self-Interest Basis scale were lower in the remaining 8 conditions, then it would indicate that participants were consciously aware that they were less concerned by Personal Self-Interest. If participants' Personal Self-Interest scores did not differ from the baseline, however, then it would suggest that participants consistently overestimated how much they were affected by their personal self-interest.

Mean Personal Self-Interest scores in each of the 9 cells are presented in Table 13. With two exceptions, participants' self-ratings on the Personal Self-Interest Scale did not differ from the baseline condition. In the baseline condition, when participants objective financial strain was significantly related to their proposal evaluations, participants reported being concerned about their Personal Self-Interest at $M=7.40$. However, even though participants' financial strain was not related to their proposal evaluations in any of the other conditions, they still reported being equally self-interested on the Personal Self-Interest Basis Scale in most of the other cells. In Cell 5, when participants were primed to adopt a self-interested mode of thinking and were cued to believe that such thinking was normative, participants reported being marginally more concerned about their Personal Self-Interest ($M=8.43$), even though the regression analyses indicated there was no relationship between their objective financial strain and their proposal evaluations ($b=.08$, $p=ns$).

Participants did report being significantly less concerned by their Personal Self-Interest in Cell 6 (self-interest prime/values cue condition; $M=6.20$), demonstrating an

awareness of their depressed self-interest levels. It is possible that the two manipulations worked together to attenuate participants' conscious awareness of their financial concerns. After completing the self-interest word scramble, participants may have felt more financially secure, and subsequently reading the value-laden cues further dampened any concerns about personal self-interest.

A Norm of Self-Interest?

At first glance, findings from the present studies seem to support Miller's arguments that people overestimate the power of self-interest, and that people behave in self-interested ways because of a perceived injunctive norm to do so. Participants in both Studies 1 and 2 seemed to privately accept the importance of self-interest when describing their own thoughts, to believe they were influenced by their self-interest when they weren't, and to report conforming to a norm of self-interest. However, additional analyses suggest that participants feel more ambivalently about self-interested thinking than such a norm would suggest.

First, I asked all participants to agree or disagree with two separate statements on 7-point Likert-type scales, planted in different locations in the first questionnaire before the manipulations: "Sometimes you need to set aside what's best for you financially, and do what's morally right" and "Sometimes you need to set aside what you believe in, and do what's best for you financially." Across both studies participants more strongly agreed with the first statement than they did the second (Study 1 $M=5.98$ as compared to $M=3.47$, $t(61)=7.72$, $p<.001$ and in Study 2, $M=5.57$ as compared to $M=3.66$ $t(360)=16.20$, $p<.001$). If participants truly accepted an injunctive norm of

self-interest, then the pattern of results would have been reversed, indicating agreement with self-interested thinking. Instead, when the questions were posed outside of a particular context, participants demonstrated a clear preference for values-based thinking.

Second, when all participants were asked, point-blank, “Which is probably the more appropriate way to think about this proposal?” with two answer choices: “How I am financially affected” and “Whether the proposal is the right thing to do,” most participants chose the latter, value-oriented option. In Sample 1, 66% of participants chose “Whether the proposal is the right thing to do,” and in Sample 2, 59% of participants chose that option. (This pattern also held up among participants who only viewed the neutral cues, when norms were not established.) If participants were truly ascribing to an injunctive norm of self-interest, then they would have chosen “How I am financially affected” as the more appropriate way to think about the proposal. Instead, most participants clearly preferred a value-oriented way of thinking about the proposal, despite repeatedly describing themselves as self-interested.

Lastly, recall that participants who were high in self-monitoring wrote significantly more value-oriented responses than self-interested responses in Study 1. High self-monitoring individuals are especially sensitive to social cues and more likely to use such cues to guide their behaviors. The fact that high self-monitoring individuals wrote more value-oriented comments suggests that a norm exists for thinking about this particular domain in terms of one’s values, and that there is not a norm of self-interest in this particular policy domain.

Combined with the results presented by Pronin, Gilovich, and Ross (2002; that people regard self-interest as a bias that unduly contaminates others' thinking), these findings strongly suggest that people are unwilling to completely adopt self-interest as a guiding force in their lives. Although the evidence does support that people inflate the influence of self-interested thinking, as I stated earlier this is easy to do given the weight that self-interest is granted in most theories of human behavior. Moreover, this is probably especially true when people have no salient alternative explanation for their motives. But the evidence for people privately believing that self-interested thinking is appropriate, and that they behave in self-interested ways because they feel that they ought to is still lacking. Future research should explore the processes surrounding people's apparent ambivalence toward self-interested thinking, readily describing themselves as self-interested while simultaneously expressing a preference for value-directed behaviors.

Conclusion

In sum, the present thesis was designed to disentangle the effects of cognitive accessibility of a mode of thinking and the salience of social norms regarding the appropriateness of those modes of thought. Findings partially supported my hypotheses in Study 1, but results of Study 2 were mixed and more complex than anticipated.

As discussed, the nuanced nature of the findings may have been due to the complexity of the chosen topic. Participants likely had existing attitudes toward affirmative action-type policies that involved unique cognitive structures. Other limitations to the present research may also have affected findings. Although care was

taken to make students feel financially vested by involving students' tuition fees, it is possible that this process substantially differed from adults evaluating social policies as examined by Chong, Citrin, and Conley (2001). Young adults likely have more disposable income than adults, who have longer-term expenses (e.g., mortgages, health insurance) that may factor into calculations of personal cost. Additionally, students must pay tuition in exchange for an education, which can be seen as a substantial investment in one's future. By contrast, the benefits of possibly paying more in taxes to benefit others (e.g., education, healthcare) may entail different psychological processes. Also, to ensure the sample sizes needed to examine the 3 X 3 design in Study 2, data were gathered over the Internet which may have resulted in participants who were more distracted. Again, I tried to offset the potential for distraction by requesting that participants take the survey in a quiet room where there would be no distractions, but there was no guarantee that participants did so. As discussed, this may have affected the results of the word scramble priming manipulation, but it may also very simply have affected the quality of participants' answers to questions comprising the predictors and the dependent measures.

However, future research should continue to explore the independent effects of cognitive accessibility versus the normative standing of self-interested and value-oriented thinking, because the independent effects of these constructs have yet to be fully explored. It is important to understand their independent effects for different reasons.

First, if voters' thoughts about a policy are biased due to normative reasons, then it suggests that the information about a policy provided by political elites acts as normative guides for voters. Such a process speaks to the power that political elites and pundits have in shaping policy dialogue, biasing voters' thoughts, and has critical implications with respect to persuasion. If voters' opinions toward a policy are biased by the language of political elites due to normative reasons, then it could mean that elites could persuade voters via informational or normative social influence.

Second, such research would help us more fully understand the psychological processes that may occur when one's self-interest is cognitively accessible, or when their value-laden concerns are more accessible. For example, it is possible that during an economic downturn, when many have lost their jobs and perhaps are at risk for losing their homes, that a self-interested mode of thinking is more chronically accessible than it would be otherwise. By contrast, some topics may be regarded as being value-laden in nature (e.g., abortion), resulting in people's values being more chronically accessible when they evaluate such policies. Research exploring the independent effects of normative cues and cognitive priming would help us better understand the psychological process by which such voters evaluate policies that have both financial and moral implications.

Table 1
Selected self-interested comments and ratings

Comment	For or against tuition increase	Self- interest Rating	Value Rating
Another tuition increase?! This is ridiculous.	1.11	4.61	2.33 ***
What makes me mad about this is how much this is going to cost me. People who focus on whether it's fair are just out of touch with reality. It's all about how much it costs and what I get out of it.	1.13	5.00	2.00 ***
In my opinion, the best way to think about this is how it affects me. And the bottom line is that I can't afford an extra tuition increase.	1.17	4.94	2.42 ***
Most people are probably thinking about how much this is going to cost them, and I totally agree.	2.19	4.38	2.56 ***
It could be so much worse. My friend's tuition jumped up 15% last year. I can do 10%.	3.69	3.25	2.75
I think of this is a financial investment. I pay 10% now, and later when I start working I'll earn even more. It's just another financial transaction.	4.31	3.44	2.50 *
More scholarship money sounds good to me.	4.56	3.56	2.67 **

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

Table 2
Selected value-oriented comments and ratings

Comment	For or against tuition increase	Self- interest Rating	Value Rating
In my opinion, the best way to think about this is whether it's the right thing to do, and I don't think this is fair at all. Minorities should have to work hard like everyone else.	1.31	2.83	4.08 ***
This is just reverse racism. It isn't fair.	1.42	3.03	4.19 ***
What makes me mad is that this isn't fair. I don't care if this costs money for me or whatever. People who focus on how much it's going to cost are just too simple-minded. It's about what's fair for everyone	2.57	2.25	4.56 ***
Most people are probably thinking about whether this is a fair policy, and I think that makes sense.	3.25	2.92	4.00 ***
I think the U would feel more welcoming if there were more minorities on campus.	4.22	2.17	4.11 ***
It's our obligation to make sure that everyone can go to college, for the betterment of society.	4.50	2.19	4.63 ***
I think this is a good idea. The U should strive to educate everyone, to give everyone the opportunity to a good education.	4.64	2.19	4.61 ***

*** $p < .001$

Table 3
Responses to cue condition manipulation check

Response	Cue Type		
	Neutral	Self-Interested	Value-Oriented
Comments reflected financial concerns	8	20	10
Comments reflected value systems	11	4	23
I don't know	6	1	1

Table 4
Descriptive statistics for coding blocks

Comment	Min.	Max.	Mean	SD
Block 100 Value mentions for the tuition increase	0	8	.89	1.57
Block 200 Value mentions against the tuition increase	0	10	2.45	2.30
Block 300 Self-interested mentions for the tuition increase	0	3	.12	.45
Block 400 Self-interested mentions against the tuition increase	0	7	1.44	1.62
Block 500 Evaluations of the tuition increase	0	6	2.58	1.62
Block 600 Mentions of emotions	0	3	.11	.44
Block 700 Mentions of broader societal problems	0	2	.21	.49
Uncodable comments	0	6	.88	1.23

Table 5
Descriptive statistics for Bases Scale composites and unloaded items

Basis	Min.	Max.	Mean	SD
Diversity Concern Basis	1	10	6.17	2.61
Personal Self-Interest Basis	1	10	7.14	2.96
Group Self-Interest Basis	1	10	5.60	2.61
How fair or unfair the proposal is	1	10	7.61	2.33
How the proposal promotes equality or not	2	10	6.49	2.53
Whether others can afford a 10% tuition increase	1	10	7.05	2.75

Table 6
Mean Diversity Concern and “Whether the proposal promotes equality or not” by condition

	Private			Public		
	Neutral	Self-Interest	Value-Oriented	Neutral	Self-Interest	Value-Oriented
Diversity Concern Basis	5.93	7.05	6.14	6.40	5.91	5.53
Whether the proposal promotes equality or not	6.60	8.00	8.53	7.00	7.36	7.53

Table 7
Mean differences on Bases Scale composites by Need for Closure

	Need for Closure	
	Low	High
Diversity Concern Basis	7.08	5.12 ^{**}
How fair or unfair the proposal is	7.95	7.03 ^M
How the proposal promotes equality or not	7.62	5.81 [*]

^{**} p<.001

^{*} p<.01

^M p<.10

Table 8
Sample sizes, mean self-interestedness of responses, and d-values for testing self-interest prime

	Neutral prime N	Self- interest prime N	Self- interest prime mean	Neutral prime mean	d-value
Sample 1	9	5	5.60	5.06	0.5491
Sample 2	16	12	5.83	5.50	0.2696
Sample 3	5	4	6.17	6.67	-0.6920
Sample 4	4	2	6.38	4.56	1.9316
Sample 5	14	7	5.79	4.93	0.6072
Sample 6	10	7	5.71	4.70	0.6372
Sample 7	10	5	4.87	4.33	0.3504
Sample 8	11	6	4.17	5.09	-0.5147
Sample 9	15	15	6.53	4.73	0.9907
Sample 10	23	13	4.96	5.04	-0.0723

Table 9
Sample sizes, mean value-orientedness of responses, and d-values for testing values prime

	Neutral prime N	Values prime N	Values prime mean	Neutral prime mean	d-value
Sample 1	4	4	2.25	3.38	- 1.0652
Sample 2	8	6	3.83	3.19	0.5232
Sample 3	4	3	3.33	4.75	- 1.1789
Sample 4	2	2	3.67	2.17	1.1571
Sample 5	12	4	2.58	3.31	- 0.6393
Sample 6	7	5	3.47	3.14	0.2384
Sample 7	8	3	4.78	2.96	1.0873
Sample 8	8	5	3.87	3.42	0.3184
Sample 9	11	13	4.38	4.00	0.2525
Sample 10	17	12	3.67	3.20	0.4127

Table 10
Number of participants and mean support for the proposal by condition*

	N	M	SD
Cell 1 Neutral prime, neutral cue	52	2.58	1.50
Cell 2 Neutral prime, self-interest cue	42	3.18	1.70
Cell 3 Neutral prime, values cue	33	2.42	1.50
Cell 4 Self-interest prime, neutral cue	38	2.44	1.24
Cell 5 Self-interest prime, self-interest cue	32	2.32	1.12
Cell 6 Self-interest prime, values cue	41	3.24	1.53
Cell 7 Values prime, neutral cue	34	2.55	1.42
Cell 8 Values prime, self-interest cue	48	2.94	1.87
Cell 9 Values prime, values cue	41	3.00	1.86

*Mean support is on a 7-point scale on which higher numbers mean more support.

Table 11

Unstandardized b-coefficients for objective self-interest and SDO in each condition

	Predictor	<i>b</i>
Cell 1 (Referent) Neutral prime, neutral cue	Self-interest	-.33 ^{***}
	SDO	-.69 ^{***}
Cell 2 Neutral prime, self-interest cue	Self-interest	-.21
	SDO	-1.14 ^{***}
Cell 3 Neutral prime, values cue	Self-interest	-.09
	SDO	-.45
Cell 4 Self-interest prime, neutral cue	Self-interest	.14
	SDO	.38
Cell 5 Self-interest prime, self-interest cue	Self-interest	.08
	SDO	-.03
Cell 6 Self-interest prime, values cue	Self-interest	.15
	SDO	-.82 ^{***}
Cell 7 Values prime, neutral cue	Self-interest	-.06
	SDO	.08
Cell 8 Values prime, self-interest cue	Self-interest	.10
	SDO	-.87 ^{***}
Cell 9 Values prime, values cue	Self-interest	.19
	SDO	-.68 [*]

^{***} weight differs from $b=0$, $p < .001$

^{*} weight differs from $b=0$, $p < .05$

Table 12
Unstandardized b-coefficients for subjective self-interest and SDO in each condition

	Predictor	<i>b</i>
Cell 1 (Referent) Neutral prime, neutral cue	Self-interest	-.30 [*]
	SDO	-.53 ^{**}
Cell 2 Neutral prime, self-interest cue	Self-interest	-.21
	SDO	-1.12 ^{***}
Cell 3 Neutral prime, values cue	Self-interest	-.35
	SDO	-.50 ^M
Cell 4 Self-interest prime, neutral cue	Self-interest	-.24
	SDO	.41
Cell 5 Self-interest prime, self-interest cue	Self-interest	-.43 [*]
	SDO	-.20
Cell 6 Self-interest prime, values cue	Self-interest	-.38 [*]
	SDO	-.86 ^{***}
Cell 7 Values prime, neutral cue	Self-interest	-.47 ^{**}
	SDO	.08
Cell 8 Values prime, self-interest cue	Self-interest	-.58 ^{***}
	SDO	-.92 ^{***}
Cell 9 Values prime, values cue	Self-interest	-.66 ^{***}
	SDO	-.73 [*]

^{***} weight differs from $b=0$, $p<.001$

^{*} weight differs from $b=0$, $p<.05$

^M weight differs from $b=0$, $p<.10$

Table 13
Mean scores on Personal Self-Interest Basis Scale by Condition

	Personal Self-Interest ⁺
Cell 1 (Referent) Neutral prime, neutral cue	7.40
Cell 2 Neutral prime, self-interest cue	7.68
Cell 3 Neutral prime, values cue	7.77
Cell 4 Self-interest prime, neutral cue	7.84
Cell 5 Self-interest prime, self-interest cue	8.43 ^M
Cell 6 Self-interest prime, values cue	6.20 [*]
Cell 7 Values prime, neutral cue	7.50
Cell 8 Values prime, self-interest cue	7.31
Cell 9 Values prime, values cue	7.12

^{*} differs from referent, $p < .05$

^M differs from referent, $p < .10$

⁺controlling for objective financial strain

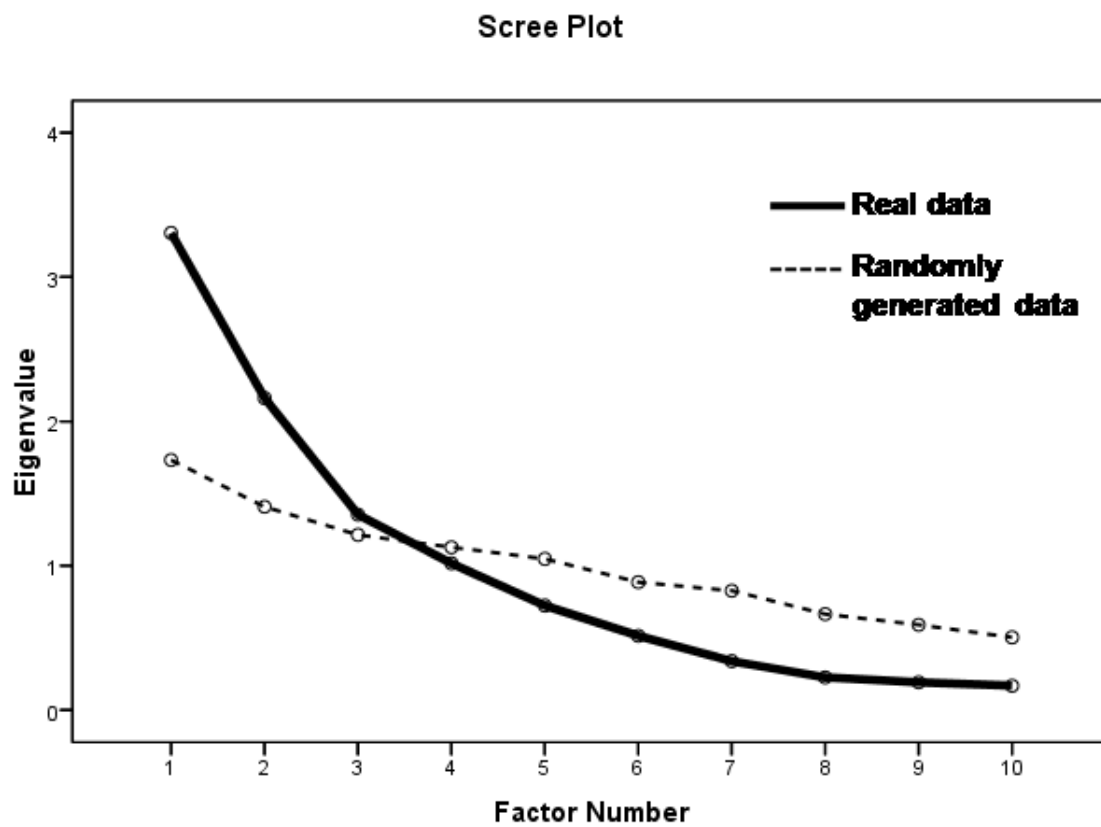


Figure 1. Scree plots of factor analysis results of the Bases Scale for randomly generated and real data in Study 1.

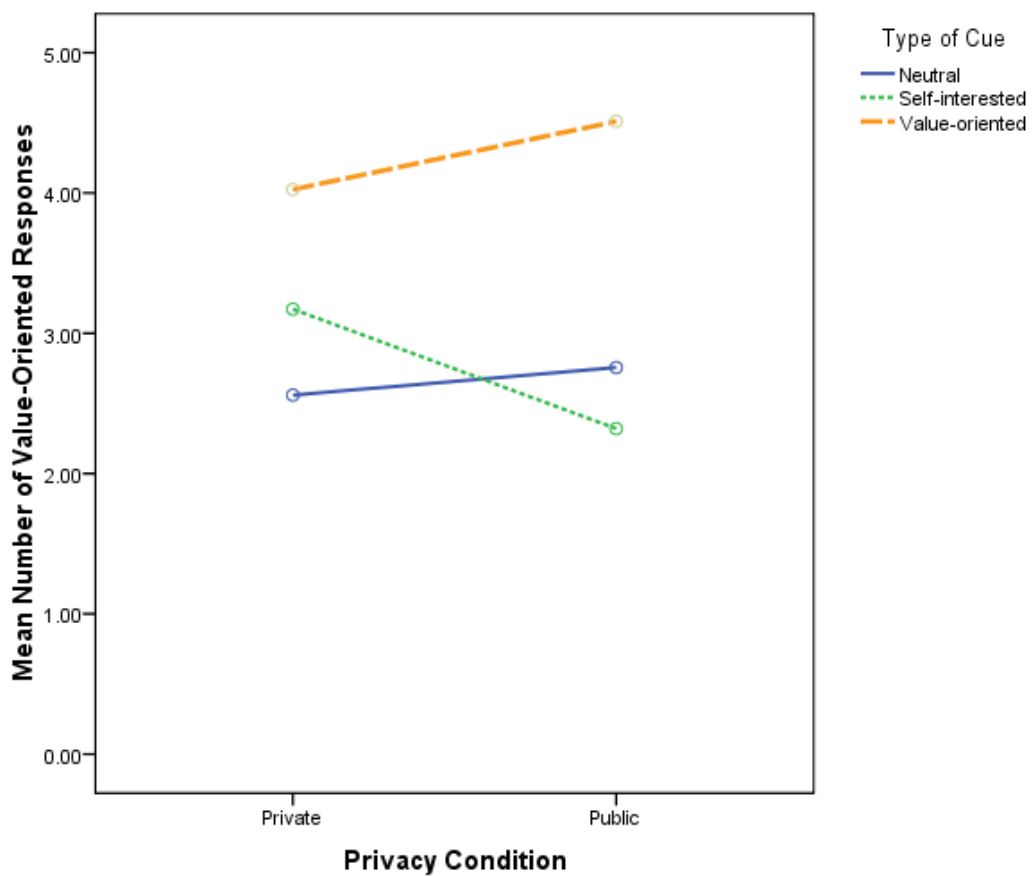


Figure 2. Mean number of value-oriented responses by cue and privacy conditions.

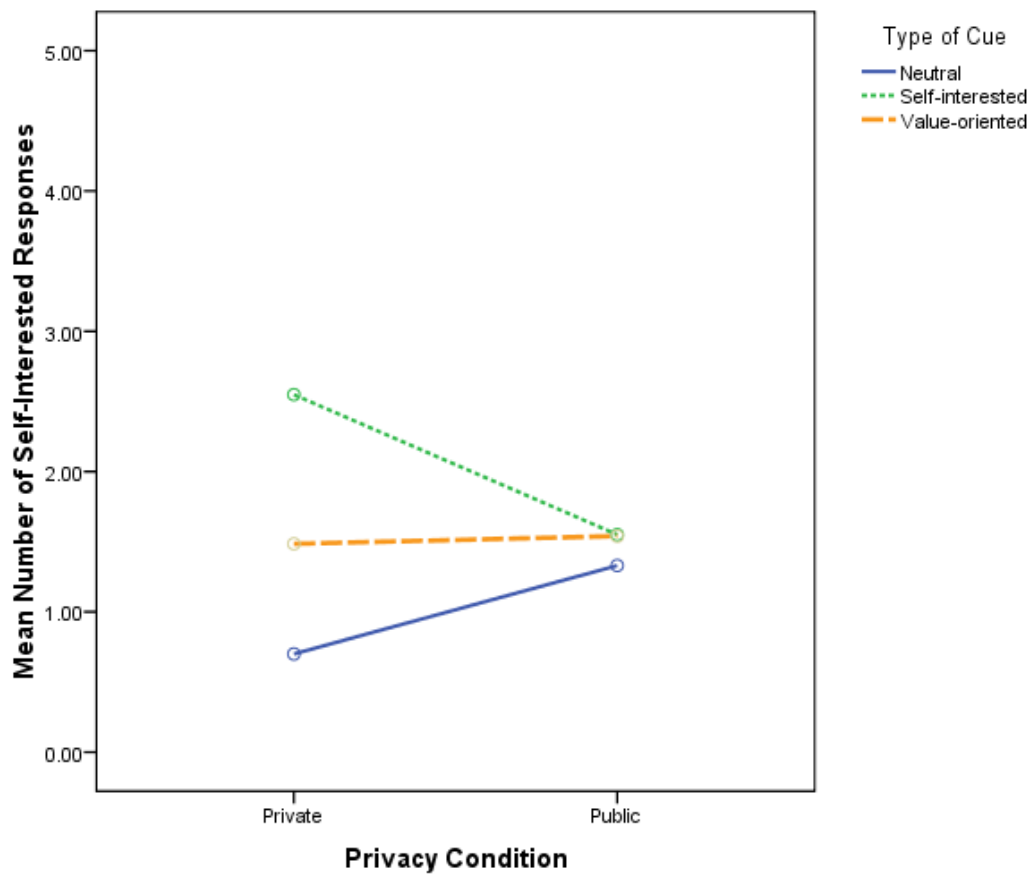


Figure 3. Mean number of self-interested responses by cue and privacy conditions.

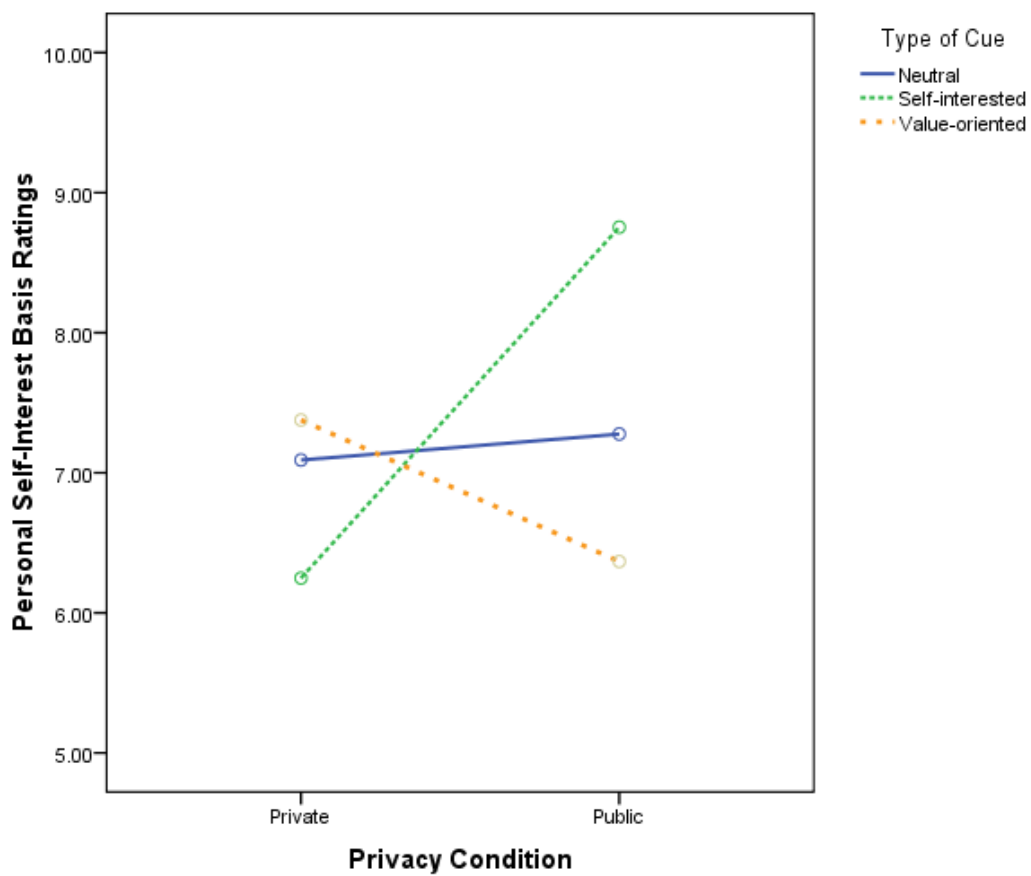


Figure 4. Participants' responses to Personal Self-Interest Basis Scale by privacy and cue conditions.

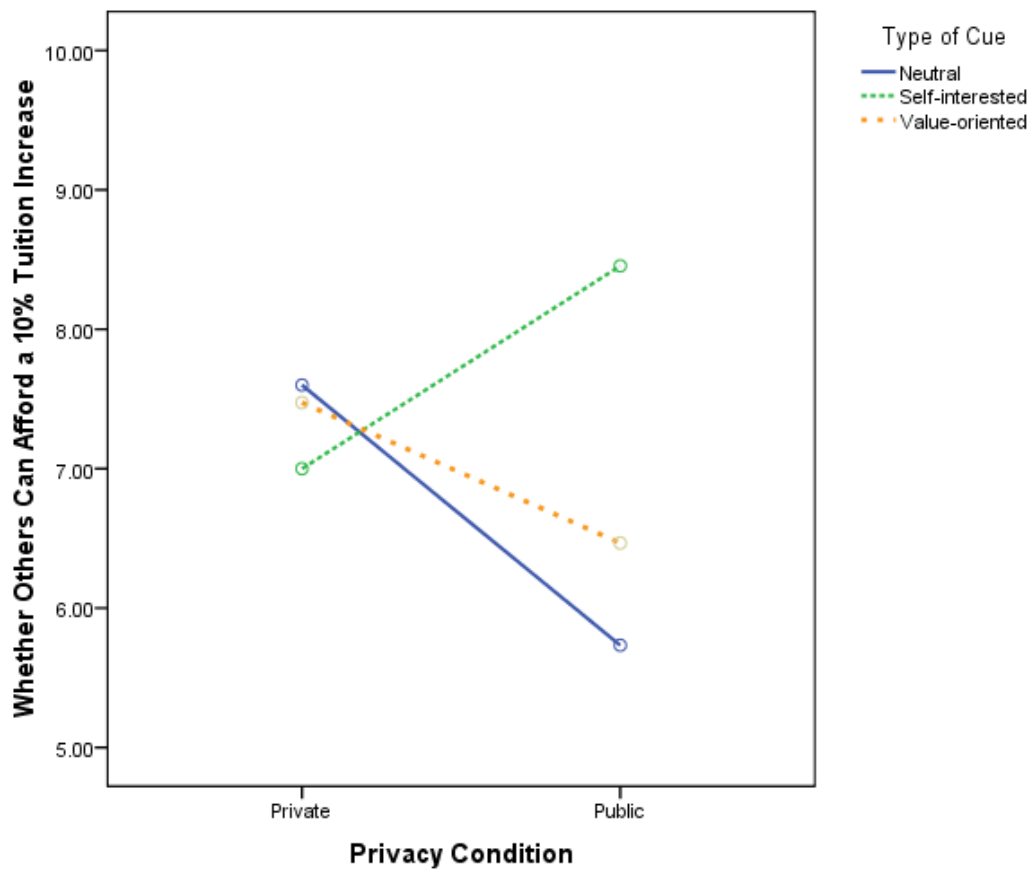


Figure 5. Mean responses to single item “Whether others can afford a tuition increase” by cue and privacy conditions.

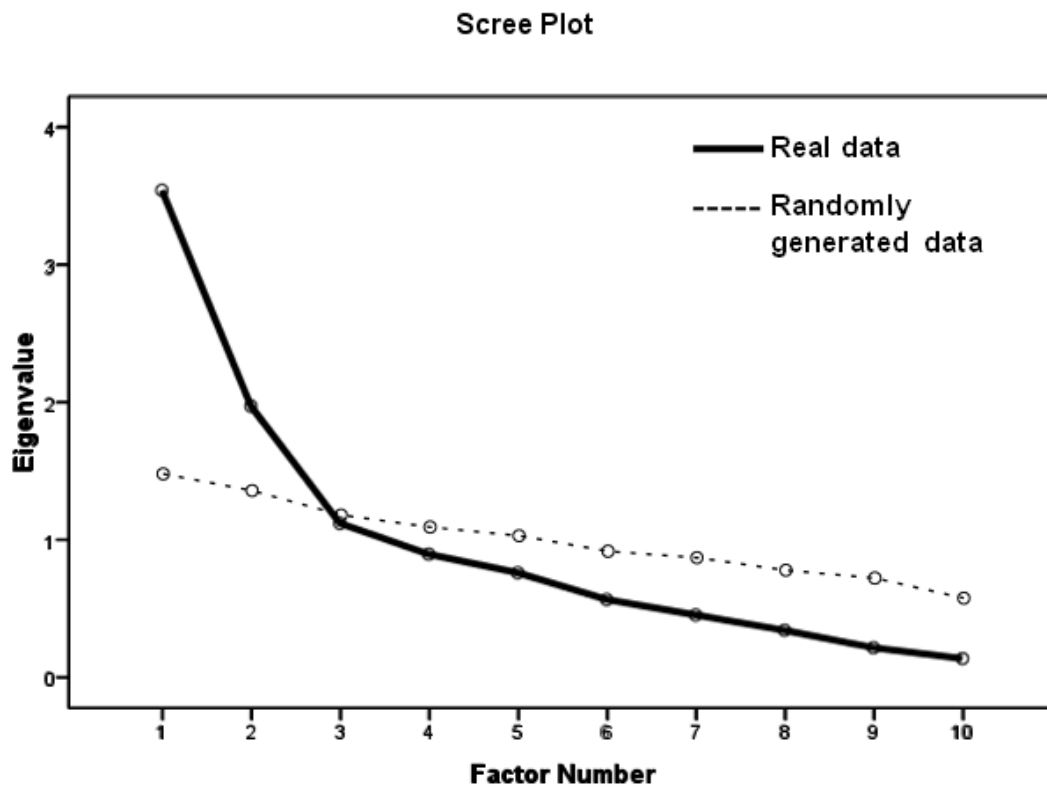


Figure 6. Scree plots of factor analysis results of the Bases Scale for randomly generated and real data in the online pilot.

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Appendix A

Stimulus

Because of drastic budget cuts from the State, the University of Minnesota may no longer be able to actively recruit students who are traditionally underrepresented on college campuses. These students include students of color and American Indian students, students from urban areas, first generation college students, and students with disabilities. In the past, the University of Minnesota has been able to offer need-based and academic scholarships to these students because they traditionally have limited access to resources that allow others to attend college more easily. However, because of the State's struggling economy, the University will no longer receive the funds from the State required to keep these scholarships alive.

To address these concerns, the University has proposed the possibility of increasing tuition for every student by approximately 10%. The monies raised from this one-time 10% tuition increase would be exclusively used to develop programs for actively recruiting, and providing scholarships for, minority students who would otherwise have been served by the cut scholarships.

Appendix B

Researcher's and Confederate Script for Study 1

RESEARCHER: Hi, are you here for the REP study? Okay, it looks like the other participant hasn't arrived yet, but you can read and sign the consent form in the meantime. When he or she shows up I'll explain the study.

{Hand over Consent Form}

{Confederate shows up}

RESEARCHER: Hi, are you here for the REP study?

CONFEDERATE: Yeah.

RESEARCHER: That's okay. This is the consent form. Please read and sign at the bottom, and then I'll let you guys know how we're going to the study.

{Sign consent forms, put in pile when finished.}

RESEARCHER: Okay. I just want you to know that everything I say from this point forward will be from a script because we need to standardize what I say to all participants in all conditions.

This is a study on conversations about social issues. We're interested in how students will think and talk about a real campus initiative that the Regents are considering. The campus initiative has the potential to be pretty controversial; it's going to affect all students and we think it will probably generate a lot of talk on campus, so we're interested in how students might respond to it. First we're going to have you answer a few questions about yourself and then read about the proposal. Because the proposal is about a sensitive topic, we're going to start off by separating the two of you so that you aren't distracted. Then, depending on which condition you're in, you may or may not talk about the proposal with each other. For research purposes, I don't know right now if you're going to talk with each other – I'll find out when you find out. If you're in the condition where you talk about it, then you'll have a 10-minute conversation about the proposal, and then you'll separate again to answer the final questions. This experiment will take about 45 minutes, total, for 2 REP points.

Do you have any questions?

First we'll separate the two of you to answer the first set of questions in this first packet. Please go through the packet, read all instructions, and answer all of the questions in order – don't skip ahead or jump back. And when you're done, meet me in here.

{Lead confederate to one room, lead participant to another. Allow time to complete questionnaire Packet 1.}

Are you all done? Okay, let's wait for him/her.

{Confederate shows up and hands over a filled in Packet 1.}

{Hand over Packets 2 & 3.}

Now I'm going to give you two packets. I'm going to briefly explain what's in these two packets, but please read all instructions and go through both packets carefully.

The first thing you are going to do is a word scramble task. The word scramble task is designed to reduce the possible bias from answering all of those questions about yourself on those scales. We want your mind to be fresh when you read about the proposal. There are 20 sets of scrambled letters that can be unscrambled to form real words. Just unscramble the letters and write the word in these lines. If you can't finish the word scramble task, just do the best you can. When you're done with the scramble, read about the proposal on the second page. Then, start the other packet.

{Confederate interjects}: Is the word scramble hard?

RESEARCHER: Some of the words are harder than others, but we tried to make it pretty easy.

{Confederate nods}: Okay.

{Researcher flip to Packet 3 and point to whether they are in the public/private condition.}

You are in the public/private condition.

{if private}

This means that you WON'T be talking about the proposal with each other. All of your answers will be completely private and will go in this envelope when you're done.

Later, another RA will enter your data – I'm not even allowed to look at what you write down.

Again, please read and follow all of the instructions carefully, especially the part when you write down your own responses. Last semester we had some trouble with some people not writing things that made sense. We've provided a few examples from students who did this study last semester to help you get a better idea of the length and clarity we need in these responses.

{allow time to complete and then hand over last packet}

This is the last packet of questions.

{allow time to complete}

Thank you for your participation. The first thing that I want you to know is that the proposal is fictional. We made up the tuition increase as something to discuss today, but as far as we know the University is NOT considering raising tuition in order to raise money for minority scholarships. Secondly, if you read comments from other students, we want you to know that those comments were fictional. We wrote those up ourselves to help cue you into thinking that the rest of the students think about the proposal in either self-interested or value-oriented ways. But those comments were fictional. There was also no chance that you were going to discuss the proposal with the other student, who is a confederate of our study. We told you about a fake tuition increase and had you read fake student comments to test our hypothesis about social norms and policy thinking. If you want any more information, it is all on this sheet {debriefing sheet}. Lastly, we ask that you not tell anyone about this study. We need as many people as we can to participate and we can't have our cover story revealed in order for our study to work.

{if public}

This means that you WILL be talking about the proposal with each other. That means that you fill out this discussion worksheet and when you're done you'll be discussing your answers on the worksheet together.

Again, please read and follow all of the instructions carefully, especially the part when you write down your own responses. Last semester we had some trouble with some people not writing things that made sense. We've provided a few examples from students who did this study last semester to help you get a better idea of the length and clarity we need in these responses

{ Allow time to complete. }

It turns out that we have too many people in the "discussion" condition, so it looks like you won't be discussing your answers with the other participant, after all. So I'll put your answers in this envelope, and you just need to finish this last questionnaire packet, which will also be private.

{ Hand over last packet. }

Thank you for your participation. The first thing that I want you to know is that the proposal is fictional. We made up the tuition increase as something to discuss today, but as far as we know the University is NOT considering raising tuition in order to raise money for minority scholarships. Secondly, you were never going to discuss your answers with the other participant. We just told you that because we wanted to see if people who believe they are discussing their answers with someone else will answer differently than those who don't believe they are sharing their answers with another student. Third, if you read comments from other students, we want you to know that those comments were fictional. We wrote those up ourselves to help cue you into thinking that the rest of the students think about the proposal in either self-interested or value-oriented ways. But those comments were fictional. We had to tell you these things to test our hypothesis about social norms and policy thinking. If you want any more information, it is all on this sheet {debriefing sheet}. Lastly, we ask that you not tell anyone about this study. We need as many people as we can to participate and we can't have our cover story revealed in order for our study to work.

Appendix C

Pre-Stimulus Individual Difference Measures

^R Reverse-coded.

Need for Closure Scale

1. In case of uncertainty, I prefer to make an immediate decision whatever it may be.
2. When I find myself facing various, potentially valid, alternatives, I decide in favor of one of them quickly and without hesitation.
3. I prefer to decide on the first available solution rather than to ponder at length what decision I should make.
4. I get very upset when things around me aren't in their place.
5. Generally, I avoid participating in discussions on ambiguous and controversial problems.
6. When I need to confront a problem, I do not think about it too much and decide without hesitation.
7. When I need to solve a problem, I generally do not waste time in considering diverse points of view about it.
8. I prefer to be with people who have the same ideas and tastes as myself.
9. Generally, I do not search for alternative solutions to problems for which I already have a solution available.
10. I feel uncomfortable when I do not manage to give a quick response to problems that I face.
11. Any solution to a problem is better than remaining in a state of uncertainty.
12. I prefer activities where it is always clear what is to be done and how it needs to be done.
13. After having found a solution to a problem I believe that it is a useless waste of time to take into account diverse possible solutions.
14. I prefer things to which I am used to those I do not know, and cannot predict.

Self-Monitoring Scale

True/False

1. I find it hard to imitate the behavior of other people.^R
2. My behavior is usually an expression of my true inner feelings, attitudes, and beliefs.^R
3. At parties and social gatherings, I do not attempt to do or say things that others will like.^R
4. I can only argue for ideas which I already believe.^R
5. I can make impromptu speeches even on topics about which I have almost no information.
6. I guess I put on a show to impress or entertain people.
7. When I am uncertain how to act in a social situation, I look to the behavior of others for cues.
8. I would probably make a good actor.
9. I rarely seek advice of my friends to choose movies, books, or music.^R
10. I sometimes appear to others to be experiencing deeper emotions than I actually am.
11. I laugh more when I watch a comedy with others than when alone.
12. In a group of people I am rarely the center of attention.^R
13. In different situations and with different people, I often act like very different persons.
14. I am not particularly good at making other people like me.^R
15. Even if I am not enjoying myself, I often pretend to be having a good time.
16. I'm not always the person I appear to be.
17. I would not change my opinions (or the way I do things) in order to please someone else or win their favor.^R
18. I have considered being an entertainer.
19. In order to get along and be liked, I tend to be what people expect me to be rather than anything else.
20. I have never been good at games like charades or improvisational acting.^R
21. I have trouble changing my behavior or suit different people and different situations.^R
22. At a party I let others keep the jokes and stories going.^R
23. I feel a bit awkward in company and do not show up quite as well as I should.^R
24. I can look anyone in the eye and tell a lie with a straight face (if for a right end).
25. I may deceive people by being friendly when I really dislike them.

Protestant Work Ethic

1. Most people who don't succeed in life are just plain lazy.
2. People who fail at a job have usually not tried hard enough.
3. If people work hard enough they are likely to make a good life for themselves.
4. Anyone who is willing and able to work hard has a good chance of succeeding.

Social Dominance Orientation

1. It would be good if groups could be equal.^R
2. We should do what we can to equalize conditions for different groups.^R
3. To get ahead in life, it is sometimes necessary to step on other groups.
4. Sometimes other groups must be kept in their place.
5. We would have fewer problems if we treated people more equally.^R
6. In getting what you want, it is sometimes necessary to use force against other groups.
7. We should strive to make incomes as equal as possible.^R
8. It's OK if some groups have more of a chance in life than others.
9. No one group should dominate in society.^R
10. Inferior groups should stay in their place.
11. If certain groups stayed in their place, we would have fewer problems.
12. All groups should be given an equal chance in life.^R
13. Increased social equality.^R
14. It's probably a good thing that certain groups are at the top and other groups are at the bottom.
15. Group equality should be our ideal.^R
16. Some groups of people are simply inferior to other groups.

Items Designed To Measure Objective Self-Interest

Many students work for pay. How many hours a week do you currently work for pay (i.e., not including unpaid internships)? (Circle or check one answer)

1. Full-time
2. Part-time
3. Do not currently work

Which of the following forms of financial assistance do you currently use to help pay for college? Please check all that apply.

1. Parents are assisting with their own income
2. Parents are assisting by taking out a parent loan
3. Personal savings
4. Academic scholarship
5. Need-based scholarship
6. Student loans (taken out by you, the student)
7. Army Tuition Assistance
8. Other (please specify)

Appendix D

Post-Stimulus Measures

Evaluation of the Proposal

How much do you agree or disagree with the following statements? Please mark the box with an “X” that most closely corresponds with your answer. (10-point scale)

1. Overall, I am supportive of the proposition to raise tuition by 10% in order to raise money to recruit minority students.
2. I feel angry when I think about the proposal to raise tuition^R.
3. If I could vote on this matter, I would vote in favor of it.
4. I would sign a petition against this proposal^R.
5. I think this proposal is a good idea.
6. I hope this proposal passes.

Bases Scale

Different things matter to different people. When you think about your evaluation of this proposal, what do you think matters most to your evaluation? In other words, what did you base your evaluation on? For each of the following, rate *how much you think the concept affects your attitude toward the proposal*. (10-point scale.)

1. How much it will affect me financially
2. How fair or unfair the proposal is
3. How the proposal promotes equality or not
4. How Whites are financially affected
5. How minorities are financially affected
6. Whether I can afford a 10% tuition increase
7. How the proposal promotes diversity or not
8. Whether diversity is important to me
9. Whether diversity is important for society
10. Whether others can afford a 10% tuition increase

Subjective Self-interest Scale

1. I can afford a 10% tuition increase.
2. A 10% tuition increase would mean I would have to work extra hours or make other sacrifices in my life.
3. I would be financially hurt by a 10% tuition increase.
4. I am affected by this proposal.
5. This proposal isn't that relevant to me.^R

Appendix E

Coding Specifications for Open-Ended Comments

Values – for tuition increase		
Positive mention of diversity (e.g., diversity is important/good)	101	
Recognition of need to help minorities (e.g., “it is important to help...”)	102	
Other pro tuition increase that is value-oriented	199	
Values – against tuition increase		
Any suggestion that people should take care of themselves, working, taking out own loans, going to cheaper schools	201	
Suggestion that diversity is not important (e.g., U is already diverse)	202	
Mention that admission should be colorblind/based on merit	203	
Mention of racism / reverse-racism.	204	
Not my responsibility to pay for others / I shouldn’t have to pay	205	
Shouldn’t charge everyone for just a few	206	
Mention of unfairness	207	
Scholarship should be SES-based	208	
Other anti-tuition increase that is value-oriented	299	
Self-interest – for tuition increase		
Mention of self as a minority group member (“As an Asian...”)	301	
Not that much money	302	
Other self interest pro tuition increase	399	
Self-interest – against tuition increase		
I can’t afford / I won’t be able to afford	401	
10% tuition increase too much / high	402	
I won’t be able to attend the U	403	
Work mention (I work full- or part-time, several jobs)	404	
Personal loan mention (I can’t afford either – I’m taking out loans!)	405	
Any complaint about tuition costing too much/past increases	406	
Mention of self as majority group member (“As a white female...”)	407	
Mention of parents helping or not helping	408	
Any mention of how participant him/herself does not benefit	409	
I would like more scholarships, too	410	
I don’t want to pay for others.	411	
Other anti-tuition that is about participants’ personal self-interest	499	
Evaluation of plan		
Mention alternative ways to raise money (appealing to private sponsors/alumni/reallocate from other funds)	501	
Plan not necessary/there is other funding and scholarships	502	
Negative impact of plan – drop in attendance, U’s reputation, discontent among students	503	
Anti-plan mentions (e.g., “I don’t like the plan,” “What a dumb idea”)	504	
Mentions concern for other people’s ability to afford the increase	505	
Mentions of backlash against minorities/race relations	506	
Other ways to use money – improve campus facilities, services, teaching	507	
Pro-plan mentions (e.g., “I like the plan,” “Good idea”)	508	
Other evaluation/criticism of plan	599	

Mention of emotion		
Specific mention of any positive emotion (e.g., happy, glad)	601	
Specific mention of any negative emotion (e.g., anger, resentment)	602	
Comment on The System		
Societal/system comment (e.g., problem with capitalism, govt, edu system)	701	
Other comment	799	
Uncodable – doesn't answer the question/too vague response	999	
How long is this comment? (1=1 sentence, 2=2 sentences, 3=3+ sentences)		
Is comment for or against tuition increase? (0=against, 1=for tuition increase, 99=unclear)		
Is this a refutational response? (0=no, 1=yes)		

Appendix F

Neutral Word Scramble

Research has shown that answering these types of questions about yourself biases the way you respond to future questions. However, we can reduce this bias by immediately having you perform a challenging mental task. Following are 20 sets of scrambled letters that can be unscrambled to form real, commonly used words. Please go through and unscramble each set of letters into a real word and fill in the blanks on the right side.

For example:

CDNALES	C A N D L E S	
AIPRALNE	_____	(AIRPLANE)
FWLERSO	_____	(FLOWERS)
BRAD E	_____	(BREAD/BEARD)
RMOTEE	_____	(REMOTE)
WRTSI WCTAH	_____	(WRIST WATCH)
GARSSY	_____	(GRASSY)
PCU	_____	(CUP)
DKSE	_____	(DESK)
CLEL PHENO	_____	(CELL PHONE)
LILPS	_____	(SPILL)
SOAF	_____	(SOFA)
INGS	_____	(SING/SIGN)
GLSSAES	_____	(GLASSES)
LEANTRN	_____	(LANTERN)
PANITIGN	_____	(PAINTING)
OCAESN	_____	(OCEANS)
RETAW	_____	(WATER)
LAWL	_____	(WALL CALENDAR)
CELNADAR	_____	
AGESC	_____	(CAGES)
FSIHT	_____	(SHIFT)

Appendix G

Self-Interest Word Scramble

Research has shown that answering these types of questions about yourself biases the way you respond to future questions. However, we can reduce this bias by immediately having you perform a challenging mental task. Following are 20 sets of scrambled letters that can be unscrambled to form real, commonly used words. Please go through and unscramble each set of letters into a real word and fill in the blanks on the right side.

For example:

CDNALES	C A N D L E S	
SCEURE	_____	(SECURE)
SINAVGS	_____	(SAVINGS)
MYNOE	_____	(MONEY)
AIPRALNE	_____	(AIRPLANE)
GAUDR	_____	(GUARD)
FINDUNG	_____	(FUNDING)
FIANCNE	_____	(FINANCE)
XPENESE	_____	(EXPENSE)
LAWL	_____	(WALL CALENDAR)
CELNADAR	_____	
BSKNA	_____	(BANKS)
THRIFT	_____	(THRIFT)
IEVNST	_____	(INVEST)
SOAF	_____	(SOFA)
CRTEI	_____	(CREDIT)
SFLE	_____	(SELF)
GARSSY	_____	(GRASSY)
ITNREEST	_____	(INTEREST)
WAETHL	_____	(WEALTH)
PROETCT	_____	(PROTECT)
AESST	_____	(ASSET)

Appendix H

Values Word Scramble

Research has shown that answering these types of questions about yourself biases the way you respond to future questions. However, we can reduce this bias by immediately having you perform a challenging mental task. Following are 20 sets of scrambled letters that can be unscrambled to form real, commonly used words. Please go through and unscramble each set of letters into a real word and fill in the blanks on the right side.

For example:

CDNALES	C A N D L E S	
ALZY	— — — — —	(LAZY)
FANIRESS	— — — — —	(FAIRNESS)
AFMARFITIVE	— — — — —	(AFFIRMATIVE)
AIPRALNE	— — — — —	(AIRPLANE)
ATICON	— — — — —	(ACTION)
EUQLIATY	— — — — —	(EQUALITY)
HDAR WRKO	— — — — —	(HARD WORK)
OPONORTIPUTY	— — — — —	(OPPORTUNITY)
LAWL	— — — — —	(WALL CALENDAR)
CELNADAR	—	
WERFALE	— — — — —	(WELFARE)
TOREALNCE	— — — — —	(TOLERANCE)
PSHUY	— — — — —	(PUSHY)
SOAF	— — — — —	(SOFA)
RSENET	— — — — —	(RESENT)
CVLII	— — — — —	(CIVIL)
GARSSY	— — — — —	(GRASSY)
RGIHST	— — — — —	(RIGHTS)
STTAUS	— — — — —	(STATUS)
PERUJDICE	— — — — —	(PREJUDICE)
PROWE	— — — — —	(POWER)

Appendix I

*Descriptions of Ambiguous Targets and Ratings for Piloting Word Scrambles**John: Bussing*

John is an ordinary American citizen who works full-time to support his family. Recently, members of his community proposed a policy to raise taxes. The money raised by the tax increase would pay for bussing minority students from a poorer part of town to public schools in which the students are mostly White. John opposes this proposal and on Election Day, he votes against it.

John is probably...

Not self-interested					Self-interested	
1	2	3	4	5	6	7

John is probably...

Not concerned about fairness				Concerned about fairness		
1	2	3	4	5	6	7

Robert: Bussing

Robert is an ordinary American citizen. Recently, members of his community proposed a policy to raise taxes in order to bus minority students from one part of town into mostly White public schools. Robert opposes this proposal and on Election Day, he votes against it.

Robert probably opposes the proposal because...

					It goes against his self-interest.	
1	2	3	4	5	6	7

Robert probably opposes the proposal because...

					It goes against his values.	
1	2	3	4	5	6	7

Robert is probably...

Not self-interested					Self-interested	
1	2	3	4	5	6	7

James is probably...

Not economically minded							Economically minded
1	2	3	4	5	6	7	

How concerned is James about the proposal reflecting his value system?

Not concerned						Very concerned
1	2	3	4	5	6	7

Darren: Buying a House

Darren is considering buying a house and has narrowed it down to two houses that he can afford. The first house he sees is in an affluent, all-White neighborhood, is expensive, and may be worth more in 10 years. The second house is in a multiculturally diverse neighborhood, is cheaper, but might not appreciate in value as much. Darren decides to buy the second house.

Darren is mostly concerned about...

Cultural Diversity						His finances
1	2	3	4	5	6	7

Darren is mostly concerned about...

Saving his money						Cultural experiences
1	2	3	4	5	6	7

Darren is probably...

Not economically minded						Economically minded
1	2	3	4	5	6	7

How concerned is Darren about diversity?

Not concerned						Very concerned
1	2	3	4	5	6	7

Jason: Outside Hiring

Jason's company is hiring a manager. It is advertising the job and is hoping to recruit a qualified minority candidate. Jason opposes this approach and thinks his company should hire from within (promote someone who already works there).

Jason is mostly concerned about...

If the proposal is fair						His own opportunities
1	2	3	4	5	6	7

Jason is mostly concerned about...

Making
money

1

2

3

4

5

Not handing out
favours

6

7

Jason is probably...

Not economically
minded

1

2

3

4

5

Economically
minded

6

7

Appendix J

*Word Completions**Self-Interest Word Completions*

DOLL _ _	DOLLAR/DOLLED
M _ _ _ TARY	MONETARY/MILITARY
PROPER _ Y	PROPERTY/PROPERLY
CH _ _ P	CHEAP/CHAMP
FO _ T _ _ E	FORTUNE/FOOTAGE
_ ALLET	WALLET/BALLET
PR _ S _ ER	PROSPER/PRESSER
ST _ CK	STOCK/STICK
_ AINS	GAINS/PAINS
BO _ US	BONUS/BOGUS
_ OODS	GOODS/WOODS
MI _ E	MINE/MILE

Values Word Completion

_ ACIAL	RACIAL/FACIAL
S _ _ VES	SLAVES/SELVES
BL _ CK	BLACK/BLOCK
G _ _ _ TO	GHETTO/GELATO
FR _ _ BIE	FREEBIE/FRISBIE
_ _ GREGATE	SEGREGATE/AGGREGATE
RAC _ _ _	RACISM/RACING
SKI _	SKIN/SKIP
BI _ S	BIAS/BIBS
DES _ _ _ E	DESERVE/DESPISE
ME _ _ T	MERIT/MEANT
_ AVORS	FAVORS/SAVORS