

SYSTEM JUSTIFICATION REQUIRES PSYCHOLOGICAL PROXIMITY

by

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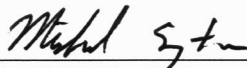
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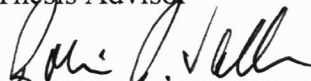
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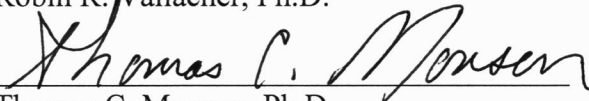


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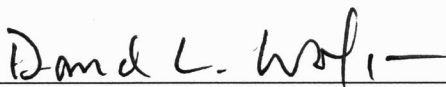
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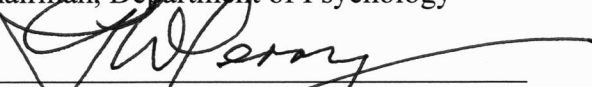


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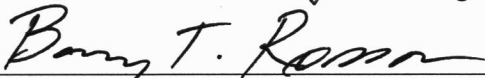
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ABSTRACT

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System justification theorists have proposed that people will defend one's circumstances, even if they inflict psychological and material costs. This tendency has been found to extend even to outcomes that have not yet been decided, but are perceived as being likely; however, this research has only examined outcomes that will be decided on in the near future. According to Construal Level Theory (CLT), distant future events are represented primarily according to their essential features, while thoughts about temporally near events are more concrete and contextual. We hypothesized that system justification results from the motivational impact of low-level thinking, and so would be expected to occur for near-future, but not distant-future, outcomes. Consistent with our hypothesis, our Main Study found evidence of system justification only when outcomes were to be decided in the near future. Distant future outcomes, in contrast, were viewed as being more undesirable as they became increasingly likely.

TABLE OF CONTENTS

List of Tables	v
List of Figures	vi
Introduction.....	1
Pilot Study.....	12
Method	12
Results & Discussion	13
Preliminary Study	15
Method	15
Results & Discussion	17
Main Study.....	20
Method	20
Results.....	21
Discussion.....	24
Appendix A.....	33
Appendix B.....	37
Appendix C.....	47
References.....	62

LIST OF TABLES

Table 1:	Justification Scores, Pilot Study	57
Table 2:	Desirability Ratings for Individual Proposals by Temporal Distance and Probability, Preliminary Study.....	58
Table 2:	Desirability Ratings for Individual Proposals by Temporal Distance and Probability, Main Study	59

LIST OF FIGURES

Figure 1:	Desirability Ratings by Temporal Distance and Probability, Main Study	60
Figure 2:	Path Analysis. Fairness Partially Mediates the Interaction's Effect on Desirability, Main Study	61

Introduction

The degree to which members of a society accept the burden of circumstances imposed on them can determine the course of that society. It is not inevitable that people surrender their fate to the decisions of those in power, but people may often fail to offer the resistance necessary to produce more favorable outcomes. The question is, when do people stand up for their values versus giving up in the face of overwhelming odds? It may not be entirely a matter of rationally weighing one's chances of overcoming all of his or her obstacles, but may, in fact, have much to do with how they mentally represent the situation. This matter is of great importance to system justification theory.

According to system justification theory (Jost & Banaji, 1994; Jost, Banaji, & Nosek, 2004), people sometimes bolster the status quo by defending existing social arrangements, even when the interests it protects are in opposition to their own self- and group-interests. However, people will not only rationalize the legitimacy of long-established institutions and authorities, they will develop more favorable attitudes toward new authorities (and policies), even before the outcome is certain, if its victory is perceived as almost inevitable (Kay, Jimenez, & Jost, 2002). This demonstrates what McGuire and McGuire (1991) referred to as a "sweet-lemons" rationalization. That is, people are motivated to increase the number of desirable attributes associated with negative, but probable, outcomes. However, such rationalizations may depend upon how these outcomes are represented in one's mind. Construal Level Theory (CLT) has shown that an event will be represented differently depending on whether it is thought to occur

in the near or distant future (e.g. Trope & Liberman, 2003). The outcome we rationalize may therefore be influenced by when the event will take place. The present study intends to examine the effect that temporal distance has on the rationalization of highly probable events, which should serve to highlight the importance of time for considering when system justification will and will not occur.

System justification

Jost's system justification theory (e.g. Jost & Banaji, 1994; Jost et al., 2004; Jost & Thompson, 2000) seeks to understand the stability of systems characterized by large disparities in the rights and privileges of their constituent groups. According to Jost, societies rife with inequality persist in part because they receive implicit support from the very people who face prejudice and discrimination. Thus, the continued bias of whites over blacks, men over women, and wealthy over poor owes something to the acceptance by the oppressed of their situation, even though this may occur on a level that is largely non-conscious. For example, low-status groups consistently exhibit higher levels of outgroup favoritism on implicit measures than on explicit ones (see Jost et al., 2004).

System justification theory fits neatly within the more general framework of motivated reasoning. Kunda (1990) described two broad motives that can affect the accessibility, construction, and evaluation of beliefs: that of accurately perceiving the world, and that of arriving at a particular conclusion. In domains that are personally important, people are generally knowledgeable enough on a subject to be able to support a number of opposing conclusions about that subject. Directional goals operate by accessing only a subset of the relevant knowledge on a topic, allowing one to construct a

belief that is not only consistent with a desired conclusion, but also supported by salient information.

Ego-, group-, and system-justifying motives are all examples of directional goals, and thus all have the potential to bias one's reasoning in one direction or another. This can lead to conflict among motives, as they may not all be acting in the same direction. This serves to highlight that for members of high-status groups, motives for ego-, group-, and system-justification are all consistent with one another, and yet, for members of low-status groups, the system-justifying motive is at odds with the other two, leading to attitudinal ambivalence (Jost & Burgess, 2000).

However, as Jost and Banaji (1994, p. 10) stated in their original paper, system justification is a psychological process in which the status quo is "preserved in spite of the obvious psychological and material harm they entail for disadvantaged individuals and groups." In explaining why this drive is able to prevail in the face of such harrowing prospects, the authors have drawn on Lerner's (1980) Belief in a Just World (BJW) theory, where people "get what they deserve and deserve what they get." Ultimately, then, the belief is adaptive: it facilitates the enactment of short- and long-term goals because it allows individuals to perceive the world as stable and orderly (Lerner & Miller, 1978).

Conversely, the belief that the future is unpredictable may, for some, be cause for anxiety. Jost and his colleagues have pointed to several conceptually-related individual difference variables that that can influence the manifestation of system justification (see Jost & Hunyady, 2005). For instance, political conservatism, which is associated with resistance to change and opposition to equality, is positively related to epistemic needs to

limit uncertainty and ambiguity, and to existential concerns, such as the fear of death, and perceptions of a dangerous world (Jost, Glaser, Kruglanski, & Sulloway, 2003).

Moreover, these needs can be activated situationally through mortality salience or system threat. These variables serve to increase support for the status quo by forcing people to call on any number of system justifying ideologies (e.g. BJW, protestant work ethic, fair market ideology, etc.) that may address and alleviate the specific anxieties that are made salient (see Jost & Hunyady, 2005). This is important because it indicates that when a person endorses a set of existing social arrangements it may not be done out of deference to one's values, but out of concern for immediate circumstances

Although much of the work on system justification has focused on the dominance of high-status groups over low-status groups (e.g. Kay & Jost, 2003; Jost & Kay, 2005), the theory can be used more generally to refer to “the psychological process whereby prevailing conditions, be they social, political, economic, sexual, or legal, are accepted, explained, and justified simply because they exist” (Jost & Banaji, 1994, p. 11). There is also evidence that a particular social arrangement may be rationalized even before it becomes status quo, provided that its coming to pass is perceived as highly probable (Kay et al., 2002).

This aspect of system justification theory can be seen as an extension of McGuire's (1960; McGuire & McGuire, 1991) conceptualization of dynamic thought systems. Reporting on a series of experiments, McGuire (1960) showed that by manipulating the likelihood of a proposition about an event, he was able to elicit changes in the participants' perceptions of how desirable the proposition was, as well as changes in the desirability of related, but unmentioned premises. Later work failed to find

evidence of prospective rationalization (McGuire & McGuire, 1991), although it does seem noteworthy that by that time, McGuire had operationalized the phenomenon differently, such that a so-called “sweet-lemons” rationalization referred to an increase in the *number* of desirable consequences evoked by information about an increase in the event’s likelihood, rather than simply an increase in the desirability. System justification researchers have since reverted back to McGuire’s (1960) original operational definition, and have again found evidence of rationalization.

For instance, just prior to the 2000 U.S. presidential election, Kay, Jimenez, and Jost (2002; Study 1) manipulated the prediction that either George W. Bush or Al Gore would win. Participants were told that the election had been predicted to yield either a 51% to 43% Gore victory, a 49% to 45% Gore victory, a 47% to 47% tie, a 49% to 45% Bush victory, or a 51% to 43% Bush victory. For participants with high motivational involvement (as indicated by membership in either the Democratic or Republican parties), the desirability of a particular outcome increased when the outcome was perceived to be more likely. An additional study (Study 2) examined student desirability ratings for a proposed tuition increase. By manipulating whether students were told that the increase was 20%, 50%, or 80% likely, and that the proposed increase was either large or small, the authors were able to replicate their election findings under less volatile, more controllable circumstances. They demonstrated that for students high in motivational involvement (operationalized by the size of the proposed change), there was direct relationship between the perceived likelihood of becoming enacted and the magnitude of a student’s support.

However, neither of the studies conducted by Kay, Jimenez, and Jost (2002) systematically examined the role of the subjective mental representation of the events. CLT has examined the role of time in this regard, which gives reason to expect that temporal distance may moderate system justification effects, at least for events that have not yet occurred. In Kay et al. (2002), the election surveys were administered in the week leading up to the 2000 presidential election, which, from the perspective of the participants of that study, the election (the event to be rationalized) was in the near future (even though the winner would not be inaugurated for another two months). In their study examining students' attitudes to a proposed tuition increase, the plan would supposedly take effect over the next three years, but the date that the board of Trustees was to decide on the measure was unspecified. It may have been that, since the students were being asked for their opinion of the issue, they perceived the board meeting to be occurring in the near future.

Construal level theory

Construal Level Theory (CLT; Trope & Liberman, 2003) proposes that psychological distance changes the way people represent situations. For example, an event that is temporally distant is likely to be represented in terms of its abstract, essential features. However, if the same event is believed to occur in the near future, it is represented more in terms of its contextual, concrete features. A series of experiments by Liberman, Sagristano, and Trope (2002) confirmed that thinking about the distant future results in thoughts that are broader and more abstract. For instance, given an event (such as moving out or camping) and a list of objects associated with that event, participants

told to think of the event as occurring in the distant-future organized the objects into fewer categories than those told to think about it as happening sometime in an upcoming weekend. Other experiments showed that distant-future events are considered to be more prototypical and less varied than those that are near.

As an event's contextual details become increasingly important as it draws near, people's feelings toward an expected event may change over time as concrete aspects become weighted more heavily relative to abstract ones. Values, for instance, play a larger role in people's perceptions of situations that are expected in the distant future than in the near future (Sagristano, Eyal, Trope, Liberman, & Chaiken, 2007). The distant future, therefore, is when values play the largest role in influencing people's behavioral intentions. More generally, psychological distance allows us to focus on the essential merits of a choice or event.

When construal processes are applied to one's own behavior, it becomes possible to see self-control phenomena as being similarly driven by the differential emphasis on high- vs. low-level representations. Baumeister (2002) outlined three broad requirements that must be met in order for self-control to successfully take place: standards, monitoring, and operational capacity. Of these three, the first is of greatest relevance to the present paper, because of the role that psychological distance has in influencing how people think about events. For instance, impulsive behavior occurs when people fail to consider how an act fits with their long-term goals (see Baumeister, 2002), but they are less likely to commit this type of lapse when they are in an abstract (vs. concrete) mindset (Fujita, Trope, Liberman, Levin-Sagi, 2006). To demonstrate this, Fujita et al. (2006) manipulated participants' level of construal and then measured the length of time that

they held a handgrip, where participants believed that the longer the duration, the more accurate would be the self-relevant feedback received subsequently. According to the CLT perspective, self-control occurs when the high-level construals of an action win out over the low-level construals (Fujita et al., 2006). Consistent with this hypothesis, those primed to high-level construals held the handgrip longer than those primed to low-level construals. Similarly, we would expect that psychological distance allows one to evaluate choices in a manner that is detached from the motivational role of affect, allowing one to more successfully produce outcomes that are consistent with one's long-term goals.

While time has been the most studied domain of psychological distance with regard to CLT, probability has also been conceptualized within this framework. Outcomes that are perceived to have a low (vs. high) probability of occurring, are represented more abstractly, leading participants to produce broader and more inclusive categorizations of related items (Wakslak, Trope, Liberman, & Alony, 2006), and are described in terms that are more ends-related than means-related (Todorov, Goren, & Trope, 2007). Thus, high probability, like the near future, focuses people's attention on the low-level features of an event. Similarly, a related line of work has found that outcomes that are certain produce more episodic (vs. abstract) reasons than uncertain outcomes (Mitchell, Russo, & Pennington, 1989).

However, probability itself may be considered a subordinate feature of choices, which, therefore, would be expected to have the more impact in decisions about the near future. Research examining gambling preferences for near- and distant-future situations (Sagristano, Trope, & Liberman, 2002) found that desirability is superordinate to feasibility (Preliminary Study 1) and payoffs are superordinate to odds (Preliminary

Study 2). That is to say, for instance, that participants' interest in how easy it is to obtain something (e.g. concert tickets) is more dependant on the desirability of the object than the other way around.

These findings were then tested in a decision-making context where it was discovered that, while games with large payoffs were preferred when the gambling would take place in the distant-future, games with a high probability of winning were preferred for the near-future. Importantly, this was not due to a difference in how likely participants believed their chances to be, but rather was due to a difference in the *weight* given to the probability versus the payoff features of the gamble. Temporal distance increases the weight given to information about payoffs and decreases the weight given to information about the probability of winning. This suggests that temporal distance plays an important role in determining the impact of probability considerations. Specifically, temporal distance decreases the subjective weight given to information about an event's likelihood. This may also be true for the types of events studied by system justification researchers.

In perhaps one of the most relevant studies examining this question, McGuire and McGuire (1991) manipulated whether students free associated about an event that might occur to them either next semester or in their mid-life and beyond. They found that when students considered an event as happening to them in the distant future, their thoughts focused more on the antecedents of the event, whereas, if visualized as occurring in the near future, students generated more thoughts about the event's consequences.

The authors concluded that events that are perceived as a long way off are seen as preventable, and so focusing on the events that lead up to them allow one to take control of their circumstances and maneuver toward or away from the target event depending on

whether it is desirable or undesirable. When that same event is perceived as imminent, however, one is more limited in the amount of control they can exert over the outcome, and so they strategically focus on its consequences as a means of “damage control”.

This is a reasonable enough explanation given the parameters of the experiment, but the problem is that it confounds changes in likelihood with changes in temporal distance; it would not explain why different types of thoughts would be salient if the constraints were held constant across time-conditions. For instance, Sagristano et al (2002, p. 373) concluded from one of their studies (Study 4) that “future optimism can be ruled out as an explanation for the effects demonstrated here because participants in both time conditions rated their chances of winning equally. In accordance with CLT, temporal distance affected the weight given to the likelihood of winning in preferences rather than the estimates of this likelihood.” Nevertheless, the McGuire and McGuire (1991) experiment is important because it provides some indirect support for the rationalization of near-future events, but not distant-future events, which is at least consistent with the present hypothesis. However, it is important to disentangle the variables of likelihood and temporal distance.

The purpose of the present research is to examine whether time plays a role in the rationalization of undesirable, but likely outcomes. CLT has demonstrated that with changes in temporal distance, there are tradeoffs between the relative weightings of high- and low-level aspects of events. As a person evaluates an outcome that is a long way off, we might expect their judgment to rely most heavily upon their values and other higher-order structures that are not affected by motivation. However, as the decision draws nearer, the influence of those values decreases, while at the same time, the influence of

feasibility concerns increases. Consistent with past findings by system justification researchers, it is hypothesized that for people who are motivationally involved in an outcome, there will be a positive relationship between the likelihood that a proposal will pass and how favorable the policy is perceived to be – but only when policy decisions will be made in the near future. When decisions will be made in the distant future, the influence of likelihood considerations should be greatly diminished.

Pilot Study

In order to demonstrate that system justification has taken place, there needs to be an increase in the amount of support for a set of circumstances or state of affairs once they become institutionalized or are seen as inevitable. The pilot study was conducted in order to establish the extent to which our materials were considered by students to be justified without having been rationalized. If there is a consensus that the outcomes are already justified, it could reduce our ability to detect any increases in favorability that might occur in later studies.

Method

Participants

58 undergraduates at Florida Atlantic University participated just prior to the start of either their statistics or social psychology class. Participation was voluntary and without compensation.

Procedure

Participants were given a packet containing nine proposals. Each of the nine was described briefly before it was explained that the school's board of Trustees may vote to enact the proposal. For instance:

“Florida Atlantic has become an increasingly competitive university in the past few years. The school's success has largely been credited to the its ambitious building projects, which have increased not only the school's ability to educate a greater number

of people but also the quality of education by adding new technologies and staying as up-to-date as possible. However, these improvements require heavy funding and the school's board of Trustees may vote to implement a large tuition increase over the next two years.”

The other proposals were: increasing the number of credits required for graduation; banning trans-fats from restaurants at FAU; instituting a complementary trolley service on campus; requiring comprehensive exams for graduation; instituting a mandatory community service policy; banning alcohol in the dormitories; requiring students to pass two language courses in each of two languages; and instituting an additional fee for courses requiring a lab.

Participants were told that they would read over a series of proposals that relate to campus life, and that for each one they should answer on a scale from 1 to 15 the question, “To what extent do you think the proposal seems justified based on the above reasoning?”, where 1 was “Not at All Justified” and 15 was “Completely Justified”. Unlike the Preliminary Study, in which we employed deception, here subjects were informed that the proposals were hypothetical, allowing the proposals to be judged by their merits, without the temptation to rationalize.

Results and Discussion

The means for the justifiability ratings are listed in Table 1. Of the nine proposals that were rated by each participant, two were viewed as being especially justified by their accompanying paragraph: the complementary trolley service ($M = 11.88$, $SD = 3.43$) and the ban on foods with trans-fats being sold on campus ($M = 10.31$, $SD = 4.12$). Our concern here was that the apparent endorsement that they were receiving from students

could hinder our ability to demonstrate system justification effects. These will be reexamined in the Results section of the Preliminary Study.

The Preliminary Study was intended to be largely exploratory. In this, our initial test for system justification effects, we sought to define the parameters that were most central to the present investigation.

Preliminary Study

Method

Participants

122 undergraduates at Florida Atlantic University who were enrolled in General Psychology participated in exchange for credit toward their course's research requirement. Participants were tested in sessions that included groups of up to 6 people.

Procedure

Participants were told that the researcher is interested in studying attitudes and that the attitudes of interest for the present study were specifically related to campus issues. But first, participants were told to answer a series of more general attitude items before continuing on to the more specific campus-related items. These items belonged to two individual difference measures: a system justification scale (Kay & Jost, 2003), and a Global Belief in a Just World (GBJW) scale (Dalbert, Montada & Schmitt, 1987; English translation in Dalbert, 1999). The latter was designed to assess situational contributions to system justification by measuring people's perceptions of "the fairness, legitimacy, and justifiability of the prevailing social system" (Kay & Jost, 2003, p. 828). This scale includes such items as "In general, the American political system operates as it should." GBJW is conceptually similar, in that it, too, attempts to measure differences in the perceptions of fairness and justice, but it is believed to be dispositional, and so its stability is independent of prevailing social and political conditions. This includes such

items as “I believe that, by and large, people get what they deserve.” Participants will rate items from both scales from 1 (strongly disagree) to 9 (strongly agree).

After all participants had completed the system justification and GBJW scales, participants were told to turn their packet to the next page, an instruction page that laid out the cover story more fully. Once everybody in the session had completed the individual difference measures, the researcher read the cover story aloud. This told students that the agenda for the next meeting of the board of Trustees of Florida Atlantic University was recently announced. Subjects were told that the full board meets very infrequently and that this will be the last time to set out broad changes for the next school year, and it was explained that the survey had been designed in order to get a sense of students’ reactions to some of the proposals that will be voted on. Each of the proposals included in the survey had a probability associated with it, which was purported to be the likelihood that the proposal will become enacted. The background section told the participants that the probabilities have been provided by a member of the board, who based the likelihood on a combination of how board members have voted in the past and how important the board considers the issue involved to be. The levels included were 20%, 50%, and 80% likelihood. The basis for the reporting of probabilities is crucial. Because time is a key variable in this study, the probabilities should be perceived to be stable. Some of the participants were told that the school board meeting will take place “next week,” while others were told that it will take place in the distant future (e.g. September). Thus, it was important that in the period between when the agenda was made and when the board meets to consider these proposals the likelihoods will remain the same. To this end, we explained that the researcher is the only person who will see the

results and so the results can in no way influence the board members when they meet. In other words, we tried to ensure that participants did not believe that their ratings would impact the outcome and the probabilities they were given were perceived as stable.

The subjects rated all nine of the proposals used in the Pilot Study, which they were told were under consideration by the university's board of Trustees. Each of the nine proposals was described in a paragraph along with the rationale behind it and the probability that it will pass. For example:

“Florida Atlantic University strives to provide the resources and opportunities for enabling students to become active members of their communities. Because a sense of personal responsibility for one's community is such an important part of one's character, it is felt that this attitude should be fostered at every possible opportunity and that college is the ideal time for helping students along this path. Thus, there is a(n) [80% / 50% / 20%] chance that the board will vote to require two hours of community volunteer work every semester they attend Florida Atlantic.”

After reading each summary, subjects rated the proposal according to how desirable or undesirable it would be if it passed, the extent to which it would affect them if it passed, and how fair or unfair the proposal would be if it passed. Each of the scales ranged from 1 to 15. The question of how much a proposal would affect the participant is our measure of motivational involvement.

There were three counterbalanced sequences in which the proposals were shown. There was a version of each for near future and distant future conditions, yielding a total of six versions. Additionally, the proposals were assigned a different probability in each of the three sequences and each probability appeared in three proposals in any given set.

Results and Discussion

Before conducting the analyses of interest, we tested whether there were significant differences between the August and September conditions. Our analyses did

not reveal any differences, and so they were collapsed into a single “distant future” dimension, which is how they were treated in all subsequent analyses.

We had hypothesized that as a proposal becomes more likely to pass it will also become more desirable, but only when the outcome will be decided in the near future. The means are reported in Table 1. In order to test for the hypothesized interaction, a between-subjects ANOVA was performed for each of the nine proposals. However, a temporal distance x probability interaction was only found to be significant for two of the nine: the tuition increase, $F(2, 116) = 6.93, p < .05$, and the ban on drinking in the dormitories, $F(2, 116) = 3.93, p < .05$. Of these, only the tuition increase exhibited the expected pattern. This is noteworthy because Kay et al. (2002, Study 2) used tuition changes to demonstrate the rationalization of yet-to-be-determined outcomes. The present interaction suggests that that effect can be moderated by temporal distance, and that their results were due to the implied nearness of the meeting that would decide the outcome.

The results for the drinking ban are harder to interpret, but this may be due to the very low level of motivational involvement that students reported, $M = 4.80, SD = 4.81$, which fell well below the means for the other proposals. Because this proposal would not affect the participants if it were to become enacted, and did not provide us with a suitable range of scores, it was dropped from further analyses

The ANOVAs uncovered two further significant findings. The proposal to institute a complementary trolley service showed a main effect of temporal distance, $F(2, 116) = 7.12, p < .05$, with the prospect more desirable when it was to be decided on in the distant future than in the near future. Also, there was a main effect of probability for the proposal to institute a lab fee, $F(2, 116) = 3.39, p < .05$. A Tukey HSD post-hoc test

revealed that this proposal was significantly more desirable when it was believed to have an 80% chance of passing than when there was only a 20% chance. Although this finding was not replicated in any of the other proposals, it is consistent with the findings of system justification research (e.g. Kay et al., 2002).

Neither the GBJW, nor the system justification scales were found to predict desirability ratings, either directly or by way of the time x probability interaction.

Finally, we decided to eliminate the trans-fat ban and the complementary trolley service proposals. These two were not only found here to be highly desirable overall, they were also found in the Pilot to be the most justified. Although system justification effects have been demonstrated for positive outcomes, such as the prospect of a George W. Bush victory in 2000 (amongst Republicans), or of a large tuition decrease for college students (Kay et al., 2002), we were concerned that ceiling effects might reduce our ability to discern trends across temporal distance and likelihoods. Therefore, we decided to drop the trans-fat ban and the complementary trolley service proposals from the materials that were to be used in the Main Study.

Main Study

Method

Participants

107 undergraduates at Florida Atlantic University who were enrolled in General Psychology participated in exchange for credit toward their course's research requirement. Participants were tested in sessions that included groups of up to 6 people.

Procedure

The procedure used in the Main Study was similar to that which was used in the Preliminary Study, except for several small modifications to the materials. Firstly, we eliminated the proposals for the complementary trolley service and trans-fat ban because the Pilot study showed that subjects were highly receptive to these changes, and that, therefore, these outcomes would not need to be rationalized. We also removed the proposal to ban drinking alcohol in the dormitories because it was found not to be motivationally involving for participants. The proposals we retained from the Preliminary Study were rewritten in order to make them less inherently justified. Not only should the outcomes to be relatively undesirable, the paragraphs that introduce them should not be so strongly presented that they would persuade an impartial reader.

In order to bring the total number of proposals back up to nine, three new ones were added. These were: requiring students to live on-campus through the end of their junior year; holding class on Labor Day, Veterans Day, Memorial Day, and Martin

Luther King, Jr. Day; and the construction of a new parking garage, for which students would have to pay each time they used it.

Also, the cover story explaining how the probabilities were derived was changed. Participants were now told that the board supports all nine of the proposals, but that, due to constraints that they have no control over, such as budgetary concerns, it was not going to be possible to implement all of them. An independent consulting firm was said to have provided the probabilities. This change was made so that, if we find differential desirability ratings across probability conditions, this cannot be ascribed to persuasion through the power of authority, since the board supported all of the proposals equally.

Another change that was made was the addition of a manipulation check. This took the form of a question added to the end of each proposal's survey that asked, "How likely do you believe this proposal is to become enacted?" Participants recorded their answers as a percentage in the space provided. This allowed us to verify whether the probabilities that we provided for each proposal were actually influencing people's perceptions about how likely those outcomes were.

The GBJW scale was found in the Preliminary Study not to have any predictive value and was removed from the present study.

Results

First, we conducted an analysis of the manipulation check in order to test our success in influencing the perceived likelihood that the proposals would become enacted. A one-way ANOVA revealed a significant difference in mean likelihood ratings across probability conditions, $F(2, 960) = 115.02, p < .001$. A Tukey HSD post-hoc showed that

proposals assigned a 50% probability were rated as being significantly more likely to pass than when assigned a 20% probability, but were seen as less likely than when assigned an 80% probability. Thus, the probability manipulation was successful in affecting the perceived likelihood that the proposals would pass.

The main hypothesis was that an increase in the likelihood of an outcome would lead people to view that outcome more favorably, but only when it was to be decided in the near (vs. distant) future. The data were analyzed using multilevel linear models that allowed us to aggregate the 9 proposals that were rated by each participant. In the first level of the model, a regression equation predicted the desirability of the proposals using the within-subjects variables as predictors: the probability that the proposal would pass and the probability x temporal distance interaction. In the second level, the between-subjects variable, temporal distance, was used as a predictor of the coefficients from the first level equations. This allowed us to test whether time moderates the effect that probability has on the desirability of proposals. It was expected that system justification effects would only be found when the proposals were thought to be voted on in the near future.

Overall, a proposal's probability significantly predicted its desirability ($b = 2.00$, $SE = .74$, $t = 2.69$, $p < .01$). This finding replicates Kay et al.'s (2003) studies, by demonstrating that, overall, as an outcome becomes more likely it also becomes more desirable. However, we had hypothesized a moderating role of temporal distance on this relationship, and this hypothesis was supported: the interaction of probability and temporal distance significantly predicted desirability ($b = -3.48$, $SE = 1.06$, $p < .01$). Follow-up analyses of the two-way interaction demonstrated a cross-over effect: when

proposals were to be decided on in the near future, the desirability of an outcome increased as it became more likely ($b = .58$, $SE = .23$, $t = 2.59$, $p = .01$), but for distant future proposals, likely outcomes were viewed more negatively than unlikely ones, although this effect was only marginally significant ($b = -.44$, $SE = .23$, $t = -1.88$, $p = .06$). This relationship is depicted in Figure 1.

The multilevel model also found that temporal distance helps to predict how favorably the proposals were viewed ($b = 2.25$, $SE = .61$, $t = 3.69$, $p < .001$); specifically, proposals were seen as more desirable when participants believed the board would meet in the distant future (vs. near future). The means for how desirable the individual proposals were perceived as can be seen in Table 3. Participants' scores from the system justification scale, and also their interaction with temporal distance x probability, were added to the model as level 1 predictors, but neither justification scores, $p > .05$, nor the interaction, $p > .05$, were able to add anything to the model.

Next, motivational involvement with the individual proposals was added to the model as a level 1 predictor, along with the interaction of motivation x time x probability. The results show that overall, the more the proposals would affect participants, the less desirable they became ($b = -.30$, $SE = .04$, $t = .8.20$, $p < .001$), which is not surprising, given that the proposals were designed to be both intrusive and unpleasant. The interaction, however, was only marginally significant ($b = .16$, $SE = .10$, $t = 1.65$, $p = .10$), but it suggests that that the time x probability interaction has a stronger impact on desirability ratings when participants are motivationally involved with the outcome than when they are not affected. To better understand how motivational involvement moderates the relationship of time and probability on a proposal's desirability, we

performed a median split on this variable and re-ran the model. Again, the three-way interaction was only marginally significant ($b = 1.49$, $SE = .84$, $t = 1.77$, $p = .78$). Importantly, the time x probability interaction remained significant even with motivation included in the model, which shows that the interaction is not driven by motivation.

Ratings of desirability and fairness were highly correlated, $r = .77$, $p < .001$. The strength of the relationship did not significantly vary across conditions of temporal distance or probability. A path analysis was conducted to test whether the relationship between the temporal distance x probability interaction and desirability was mediated by the perceived fairness of the proposals, the results of which are represented in Figure 2. The interaction predicted fairness, $b = -2.23$, $SE = 1.01$, $t = -2.19$, $p < .05$. When fairness was added to the model original model, the fairness of a proposal significantly predicted its desirability, $b = .79$, $SE = .71$, $t = -2.37$, $p < .05$, and the interaction was still able to predict desirability, $b = -1.68$, $SE = .71$, $t = -2.37$, $p < .05$. This demonstrates that the fairness of a proposal partially mediates the effect of the time x probability interaction on ratings of desirability.

Discussion

The results supported our hypothesis that temporal distance is an important moderator of system justification effects. Specifically, proposals were viewed as being more desirable as they became increasingly likely to pass, but only when the outcome was to be decided in the near future. We had predicted that when the proposals were to be decided on in the distant future, they would be equally desirable for all levels of probability. Instead, we found that desirability ratings actually decreased as passage

became more likely. Our expectation was that with temporal distance, subjects would have sufficient perspective to judge the proposals according to their merits, rather than resorting to motivated reasoning. Indeed, it is clear that these participants were not engaging in system justification, because it was the proposals that were nearly inevitable that were viewed most negatively. Since all nine proposals were intended to be, on the whole, undesirable to the average student, one possible explanation is that likely outcomes posed more of a threat to the participants than unlikely outcomes.

Surprisingly, there was only weak evidence that motivational involvement moderated the effects of the two-way interaction, and the interaction remained significant even after motivation was controlled for. These results were contrary to our expectations, but the divergence from Kay et al.'s (2002) findings may be due to the differences in how motivational involvement was operationalized. For instance in their election study (Study 1), motivational involvement was inferred from participants' partisanship, and in their tuition change study (Study 2), it was manipulated through the magnitude of the change to be implemented. In contrast, the present study gauged involvement by asking participants directly. It is possible that in doing so, some important dimension of the construct eluded us. Even more likely, since there was evidence of system justification in the near future conditions, the proposals were of such a nature that a significant portion of the participants would have been affected if they were to be enacted. Thus, the results should not be taken as evidence that motivational involvement is not an essential component of system justification.

The inclusion of the measure of motivational involvement did, however, allow us to rule out a possible alternative explanation for the interaction that we had found

evidence for: that the results could be attributed to differences in the mode of processing. Including motivation in our model allowed us to control for this possibility. According to Petty and Cacioppo's (1986) Elaboration Likelihood Model, there are two routes by which a message can persuade somebody: the central route, in which a person carefully weighs the strengths and evidence of the arguments presented, and the peripheral route, in which non-essential cues (i.e. the author's expertise) are a more important influence on attitudes. The personal relevance of a message has been found to moderate the route that is used (Petty, Cacioppo, & Goldman, 1981), where messages that are not personally relevant lead to an increased reliance on peripheral cues, and for relevant messages argument quality is more impactful. The participants in the present study would already have been differentially affected by the proposals, and these differences might have become exaggerated due to our manipulation of temporal distance and likelihood. If this were the case, then we might expect to find that mode of processing systematically contributed to the proposals' desirabilities by way of motivational involvement. However, because the temporal distance x probability interaction remained significant after motivational involvement was controlled for, we can eliminate this possibility.

Finally, our path analysis showed that desirability ratings were partially mediated by perceptions of how fair an outcome would be. This finding is consistent with research that used structural equation modeling to draw a significant path from distributive fairness judgments to outcome satisfaction (Tyler, 1984). While the strength of the relationship between outcome fairness and outcome favorability has led some researchers to treat the two as nearly identical (e.g. Brocker & Wiesenfeld, 1996), a recent meta-analysis (Skitka, Winkquist, & Hutchinson; 2003) found that they are, in fact, separate

constructs. This is consistent with the assertion by system justification researchers that individuals are motivated to see the status quo as both desirable and fair (Jost et al., 2004), but it is not yet clear whether system justification acts directly upon an outcome's desirability, or if this occurs by some other route.

Our results seem to demonstrate that, independent of fairness, an outcome that is inevitable is viewed favorably. However, participants were asked explicitly to rate their opinion of how fair or unfair the proposals were. Nisbett and Wilson (1977) have outlined some of the difficulties that might prevent a person from becoming aware of how stimuli affect them. It is possible, then, that the proposals' desirability ratings were mediated more fully by fairness than was revealed by the analysis, and that implicit conceptions of fairness impact desirability more directly.

System Justification and CLT

The goal of the present research was to apply the CLT perspective to system justification theory. Overall, these results are consistent with previous CLT findings. According to this perspective, psychological distance changes the way that people mentally represent situations, and this seems to account for the moderating role of temporal distance in the Main Study. CLT research has shown that distant future situations are represented according to their merits, as seen through the lens of a person's values, but representations of near future situations are more motivationally driven and are less dependent on core features. The present results show that participants had an overall preference for proposals when they were decided on in the distant future. Importantly, this would only be expected when the high-level aspects of an outcome are

more positive than the low-level aspects. Whereas it may be difficult and time-consuming to master the nuances of verb-conjugation in, say, French, the acquisition of a foreign language is nevertheless a highly desirable outcome for many people. Similarly, students who would feel burdened by community service by having to shift their extracurricular schedules and possibly wake up early on the weekend, might also feel that even the little bit of work required could vastly improve their neighborhood and build strength of character. If the high-level features of the proposals had conflicted with the participants' values, the present main effect of temporal distance would have been unlikely.

On the other hand, it is precisely because the low-level features of the proposals were negative that the participants had been compelled to rationalize them. In near future conditions these are the features that primarily define the proposals, and these become weighted more heavily still as their passing becomes more certain. While Kay et al. (2002) demonstrated that people are motivated to justify likely outcomes, the present study suggests that this might be driven by the salience of low-level features. In the distant future, when values are expected to be the dominant factor in shaping attitudes, there was no evidence of system justification. Consistent with CLT, this is not attributable to future optimism and is likely due to differences in how the proposals are mentally represented. This is strong evidence that people will not always defend likely outcomes and that system justification effects can be better predicted when one accounts for the various dimensions of psychological distance.

The Role of Values

System justification theory deals so exclusively with motivated reasoning that it avoids the larger discussion about the role of values in people's attitudes about the institutions and policies that help shape their lives. Indeed, a common criticism of the theory is that Jost and his colleagues fail to properly address when system justification will or will not occur (Reicher, 2004; Rubin & Hewstone, 2004; Huddy, 2004; Sidanius et al., 2004), and thus is largely silent on how to prevent or eliminate system justification effects.

CLT has demonstrated that values will be a dominant factor in how people feel about an attitude object when it refers to an event or outcome in the distant future. The present study shows how this can change the way that probability affects the desirability of outcomes, and it suggests that people are less prone to motivated reasoning when thinking about high-level features. Although we have only examined system justification in the context of an outcome that will be decided at some time in the future, it could point the way toward a psychological antidote for the phenomenon more generally.

For instance, the effects of system justification are often treated as though they were permanent. Certainly, many of the people studied (e.g. African-Americans, women, gays) have faced lifetimes' worth of discrimination that have been repeatedly rationalized, and who have so internalized the current state of affairs that they implicitly favor high-status outgroups. However, the current research suggests that even though people may defend the status quo, they might also hold values that are in conflict with their circumstances. Possibly, system justification effects could be attenuated by leading people to frame the status quo in terms of their values.

To the extent that low-level construal of a situation is necessary for system justification to occur, focusing on the situation's high-level aspects might provide a person enough perspective to more accurately evaluate the fit between their sociopolitical environment and their self-concept. This could happen whenever one's values become salient, which should have the effect of moving the person away from the motivated type of reasoning that leads to rationalization and toward a characterization of one's situation according to its essential features. Our research suggests that without a low-level mindset, system justification cannot occur.

Implications

Kay et al. (2002) demonstrated the ease with which people shift their support toward likely outcomes. Upon reading that a group of pollsters predicted that Al Gore would win the 2000 election, Republicans instantly warmed to the possibility of his presidency. The same thing happened with Democrats toward George W. Bush. This principle can be readily applied to every sort of public policy decision that affects us. People justify the bills that will be signed into law, the taxes that will be levied, and the wars that will be waged – and this could happen the very second one learns of the inevitability of a certain course of action.

But even inevitable outcomes can be met with resistance. This is not necessarily because a person expects to make a difference, but because they feel that to acquiesce would be a betrayal of their principles. However, in situations where there is a single decision-making event that draws nearer, one's focus will begin to shift away from their values and toward the low-level thoughts that enable system justification. This would

make a concession much more likely when the decision will be reached in the immediate future than when it is still further down the road.

This pattern could also describe attitudes toward more entrenched situations, where there is no single event to justify, but an unfavorable standard of living. For instance, suppose that somebody realizes that things could be better. This person swells with idealism and sees a way to bring about positive change. As committed as she may be early on, as the time to act draws near she begins to see more and more that the situation isn't as bleak as she first imagined, and eventually gives up her pursuit as not being worth the effort.

All over the world, those who are disadvantaged by the systems they live under help to preserve the very way of life that holds them back. Societies owe their stability to these people. But stability can impede change, and the people who would benefit most by egalitarian reforms sometimes resist them out of motivational concerns that help to preserve the status quo. Our research indicates that, rather than an inevitable fact of human nature, it is associated with the level at which situations are mentally represented. Although construal is highly dependent on psychological distance, it is possible to enter a high- or low-level mindset by other means. A more complete theory of system justification will have to account for these.

Future Directions

One of the difficulties of interpreting the results in light of CLT is that the two independent variables, temporal distance and probability, lacked independence from one another. Not only are they both dimensions of psychological distance that influence the

level of mental representation, but differences in temporal distance are known to affect the weight given to information about probability. This confound can be addressed in a number of ways, which would help to clarify the role of construal.

Although the present set of studies was an important initial step in demonstrating that construal can moderate system justification, we were only able to infer how the proposals were represented based on the levels of temporal distance and probability, but in future studies we might want to manipulate construal directly. This could be done, for instance, by having participants list low-level or high-level thoughts prior to rating the desirability of an outcome. Alternatively, we might attempt to measure construal level, and thus know whether the variables are affecting mental representation in the ways that they are expected to.

Appendix A

Pilot Study Materials

Below you will read nine proposals related to campus life at FAU. Please rate on a scale from 1-15 how justified you think the proposal is based on the reasoning laid out in the paragraph, where 1 is “Not at All Justified” and 15 is “Completely Justified.”

Florida Atlantic has become an increasingly competitive university in the past few years. The school’s success has largely been credited to the its ambitious building projects, which have increased not only the school’s ability to educate a greater number of people but also the quality of education by adding new technologies and staying as up-to-date as possible. However, these improvements require heavy funding and school’s board of Trustees may vote to implement a large tuition increase over the next two years.

To what extent do you think the proposal seems justified based on the above reasoning?

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Given the recent health concerns raised over partially hydrogenated cooking oils, which contain trans-fats, there is a movement to eliminate these oils from fast foods. Because there are commercially available substitutes that don’t impact the taste and that do not contain trans-fats, some fast food restaurants have taken steps replace the cooking oils used in their recipes. However, because some restaurants haven’t yet begun taking these steps, the board of Trustees may vote to ban trans-fats from being sold on campus.

To what extent do you think the proposal seems justified based on the above reasoning?

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Florida Atlantic University strives to provide the resources and opportunities for enabling students to become active members of their communities. Because a sense of personal responsibility for one's community is such an important part of one's character, it is felt that this attitude should be fostered at every possible opportunity and that college is the ideal time for helping students along this path. Thus, the board of Trustees may vote to require two hours of community volunteer work every semester they attend Florida Atlantic.

To what extent do you think the proposal seems justified based on the above reasoning?

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

The administration realizes that because of the many building projects taking place throughout the campus, it has sometimes been difficult for students to find convenient parking. Future projects are likely to add to the difficulties and as the campus expands, so does the distance that students will need to travel to get from one building to another. In order to reduce some of the burden the board of Trustees may vote to institute a complementary trolley service that will run regular routes to pick up and drop off students at designated stops.

To what extent do you think the proposal seems justified based on the above reasoning?

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

One of the most important roles of Florida Atlantic is ensuring that students leave college prepared to enter a competitive job market. Both employers and graduate schools are looking for people who are highly knowledgeable in their field and so other universities have instituted comprehensive exams in order to demonstrate the level at which their students learn and retain information through graduation. Because Florida Atlantic must also show that students leave with a satisfactory mastery of their major area of study, the board of Trustees may vote in favor of requiring students to pass a comprehensive exam in their major before they can successfully graduate.

To what extent do you think the proposal seems justified based on the above reasoning?

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Underage drinking has become a serious problem on campus and the number of alcohol related hospital admissions from students in living in dorms has risen dramatically over the past three years. Such a substantial increase needs to be met with a significant

solution as the wellbeing of Florida Atlantic’s students is the single most important factor in shaping policy. Therefore, the board of Trustees may vote in favor of a total ban on drinking in the dormitories.

To what extent do you think the proposal seems justified based on the above reasoning?

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

FAU wants to ensure that students maximize the time they spend at college throughout the limited term of their enrollment. In offering a wide variety of different subject areas, it is hoped that students take the opportunity to get a well-rounded education while also gaining sufficient expertise in the area of their major. In an effort to meet these criteria, the board of Trustees may vote to increase the number of credits required for graduation from 120 to 132.

To what extent do you think the proposal seems justified based on the above reasoning?

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

In an increasingly global community, it is more common than ever that we are having to communicate with people whose language we don’t speak. International cooperation is taking business beyond national borders and more and more often multiple languages are necessary in order to get important tasks done well, and top universities are now requiring students to become proficient in two languages other than English. Because Florida Atlantic feels that its students should be able to compete for jobs at the highest level, the board of Trustees may vote to require students pass two courses for each of two languages.

To what extent do you think the proposal seems justified based on the above reasoning?

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

In order to provide a broader, more hands-on approach to learning, students taking lab courses should have the best tools available. However because this only applies to a small percentage of classes overall and the resources needed would be more specialized than those typically necessary for class, there is a feeling that these labs should also cost more so that they can be appropriately funded. Therefore, the board of Trustees may vote to

institute an additional lab fee for each lab course on top of the cost of tuition for the course.

To what extent do you think the proposal seems justified based on the above reasoning?

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Appendix B

Preliminary Study Materials

The agenda for the next full board meeting of Florida Atlantic's Board of Trustees was announced recently, which outlines the issues that will be taken up and brought to a vote. The Board is responsible for determining many of the policies that affect the nature of both students' and faculties' academic and campus activities. However, the full board meets very infrequently and this will be the last opportunity to set out broad changes before the next school year, giving added importance when this meeting takes place [next week/ in August].

This survey has been designed in order to get a sense of students' general reactions to some of the proposals that will be voted on. Additionally, a member of the board has provided estimates of how likely each of these proposals are to pass based in part on how board members have voted in the past and how important the board considers the issues to be to the well-being of the student body. However, the student attitudes collected for this study will in not in any way influence the Board members when they meet to decide on new policies

One of the most important roles of Florida Atlantic is ensuring that students leave college prepared to enter a competitive job market. Both employers and graduate schools are looking for people who are highly knowledgeable in their field and so other universities have instituted comprehensive exams in order to demonstrate the level at which their students learn and retain information through graduation. Because Florida Atlantic must also show that students leave with a satisfactory mastery of their major area of study, there is a [20%, 50%, 80%] chance that the board will vote in favor of requiring students to pass a comprehensive exam in their major before they can successfully graduate.

How desirable or undesirable would it be for you personally if the Board of Trustees were to vote [next week /in August] in favor of this policy?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Extremely undesirable						Neither desirable nor undesirable							Extremely desirable	

If this policy were to be approved by the Board of Trustees [next week /in August], to what extent would it affect you?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Not at all						Somewhat								Greatly

How fair do you think this policy would be if the Board votes in favor of it [next week /in August]?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Extremely unfair						Neither fair nor unfair							Extremely fair	

In order to provide a broader, more hands-on approach to learning, students taking lab courses should have the best tools available. However because this only applies to a small percentage of classes overall and the resources needed would be more specialized than those typically necessary for class, there is a feeling that these labs should also cost more so that they can be appropriately funded. Therefore, it is [20%, 50%, 80%] likely that the board will vote to institute an additional lab fee for each lab course on top of the cost of tuition for the course.

How desirable or undesirable would it be for you personally if the Board of Trustees were to vote [next week /in August] in favor of this policy?

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Not at all						Somewhat							Greatly	

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Extremely unfair						Neither fair nor unfair							Extremely fair	

The administration realizes that because of the many building projects taking place throughout the campus, it has sometimes been difficult for students to find convenient parking. Future projects are likely to add to the difficulties and as the campus expands, so does the distance that students will need to travel to get from one building to another. In order to reduce some of the burden, there is a [20%, 50%, 80%] chance that the board will vote to institute a complementary trolley service that will run regular routes to pick up and drop off students at designated stops.

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Extremely undesirable						Neither desirable nor undesirable							Extremely desirable	

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How desirable or undesirable would it be for you personally if the Board of Trustees were to vote [next week /in August] in favor of this policy?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Extremely undesirable						Neither desirable nor undesirable							Extremely desirable	

If this policy were to be approved by the Board of Trustees [next week /in August], to what extent would it affect you?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Not at all						Somewhat								Greatly

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Extremely unfair						Neither fair nor unfair							Extremely fair	

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Extremely undesirable						Neither desirable nor undesirable							Extremely desirable	

If this policy were to be approved by the Board of Trustees [next week /in August], to what extent would it affect you?

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Not at all						Somewhat							Greatly	

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Extremely undesirable						Neither desirable nor undesirable							Extremely desirable	

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Not at all						Somewhat							Greatly	

How fair do you think this policy would be if the Board votes in favor of it [next week /in August]?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Extremely unfair						Neither fair nor unfair							Extremely fair	

In an increasingly global community, it is more common than ever that we are having to communicate with people whose language we don't speak. International cooperation is taking business beyond national borders and more and more often multiple languages are necessary in order to get important tasks done well, and top universities are now requiring students to become proficient in two languages other than English. Because Florida Atlantic feels that its students should be able to compete for jobs at the highest level, there is a [20%, 50%, 80%] chance that the Board will vote to require students pass two courses for each of two languages.

How desirable or undesirable would it be for you personally if the Board of Trustees were to vote [next week /in August] in favor of this policy?

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Extremely undesirable						Neither desirable nor undesirable							Extremely desirable	

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Not at all						Somewhat								Greatly

How fair do you think this policy would be if the Board votes in favor of it [next week /in August]?

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Extremely unfair						Neither fair nor unfair							Extremely fair	

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How desirable or undesirable would it be for you personally if the Board of Trustees were to vote [next week /in August] in favor of this policy?

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Extremely undesirable						Neither desirable nor undesirable							Extremely desirable	

If this policy were to be approved by the Board of Trustees [next week /in August], to what extent would it affect you?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Not at all						Somewhat							Greatly	

How fair do you think this policy would be if the Board votes in favor of it [next week /in August]?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Extremely unfair						Neither fair nor unfair							Extremely fair	

Florida Atlantic University strives to provide the resources and opportunities for enabling students to become active members of their communities. Because a sense of personal responsibility for one's community is such an important part of one's character, it is felt that this attitude should be fostered at every possible opportunity and that college is the ideal time for helping students along this path. Thus, there is an [20%, 50%, 80%] chance that the board will vote to require two hours of community volunteer work every semester they attend Florida Atlantic.

How desirable or undesirable would it be for you personally if the Board of Trustees were to vote [next week /in August] in favor of this policy?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Extremely undesirable						Neither desirable nor undesirable							Extremely desirable	

If this policy were to be approved by the Board of Trustees [next week /in August], to what extent would it affect you?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Not at all						Somewhat							Greatly	

How fair do you think this policy would be if the Board votes in favor of it [next week /in August]?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Extremely unfair						Neither fair nor unfair							Extremely fair	

Appendix C

Main Study Materials

The agenda for the next full board meeting of Florida Atlantic's Board of Trustees was announced recently, which outlines the issues that will be taken up and brought to a vote. The Board is responsible for determining many of the policies that affect the nature of both students' and faculties' academic and campus activities. However, the full board meets very infrequently and this will be the last opportunity to set out broad changes before the next school year, giving added importance when this meeting takes place [next week/ next August].

This survey has been designed in order to get a sense of students' general reactions to the proposals that will be voted on. Although the Board supports each of the following proposals, they are not equally likely to pass. This is because certain situational constraints, such as budgetary concerns, impact whether it is possible to implement the proposals. An independent consulting agency has provided the university with an estimate of how likely each of the proposals are to be implemented, given the relevant constraints, regardless of the Board's support. The student attitudes collected for this study will in not in any way influence the Board members when they meet to decide on new policies.

Lab courses tend to provide students with more hands-on experience than the average lecture or seminar course. This typically involves resources that cost extra, requiring the university to charge a lab fee on top of the cost of tuition, which may run as high as \$50. Due to future budget constraints, however, students may be expected to pay more for equipment than has been necessary in the past. The Board supports doubling the fee required for each lab course, and it is [20%, 50%, 80%] likely that this will become enacted.

How desirable or undesirable would it be for you personally if the Board of Trustees were to vote [next week /in August] in favor of this policy?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Extremely undesirable						Neither desirable nor undesirable							Extremely desirable	

If this policy were to be approved by the Board of Trustees [next week /in August], to what extent would it affect you?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Not at all						Somewhat							Greatly	

How fair do you think this policy would be if the Board votes in favor of it [next week /in August]?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Extremely unfair						Neither fair nor unfair							Extremely fair	

How likely do you believe this proposal is to become enacted? _____%

In our global community, it is increasingly common to have to interact with individuals speaking a foreign language. In some areas of business, a good understanding of multiple languages is required, and so it is important that students attain a certain level of proficiency before they enter the job market. Florida Atlantic currently requires students to learn one language other than English, but this is seen by some as insufficient. The Board supports requiring students to pass two courses for each of two foreign languages, and there is a [20%, 50%, 80%] chance that this will become enacted.

How desirable or undesirable would it be for you personally if the Board of Trustees were to vote [next week /in August] in favor of this policy?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Extremely undesirable						Neither desirable nor undesirable							Extremely desirable	

If this policy were to be approved by the Board of Trustees [next week /in August], to what extent would it affect you?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Not at all						Somewhat							Greatly	

How fair do you think this policy would be if the Board votes in favor of it [next week /in August]?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Extremely unfair						Neither fair nor unfair							Extremely fair	

How likely do you believe this proposal is to become enacted? _____%

FAU wants to ensure that students maximize the time they spend at college throughout the limited term of their enrollment. Not only does this entail gaining sufficient expertise in the area of their major, but students must be encouraged to take courses in unrelated fields, in order to obtain a well-rounded education that touches on both the sciences and the humanities. In an effort to meet these criteria, the Board supports voting to increase the number of credits required for graduation from 120 to 132, and there is a [20%, 50%, 80%] chance that this will become enacted.

How desirable or undesirable would it be for you personally if the Board of Trustees were to vote [next week /in August] in favor of this policy?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Extremely undesirable						Neither desirable nor undesirable							Extremely desirable	

If this policy were to be approved by the Board of Trustees [next week /in August], to what extent would it affect you?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Not at all						Somewhat							Greatly	

How fair do you think this policy would be if the Board votes in favor of it [next week /in August]?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Extremely unfair						Neither fair nor unfair							Extremely fair	

How likely do you believe this proposal is to become enacted? _____%

On-campus student housing has been shown to increase student involvement with their university by creating opportunities for social interaction and encouraging the participation of students in college activities. The administration is interested in translating these findings into an environment that promotes student involvement, and one way of doing this would be deciding where students may live. Currently, only freshman are required to live in student housing on campus. The Board would like this requirement will be extended to sophomores and juniors, and there is a [20%, 50%, 80%] chance that this will become enacted.

How desirable or undesirable would it be for you personally if the Board of Trustees were to vote [next week /in August] in favor of this policy?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Extremely undesirable						Neither desirable nor undesirable							Extremely desirable	

If this policy were to be approved by the Board of Trustees [next week /in August], to what extent would it affect you?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Not at all						Somewhat								Greatly

How fair do you think this policy would be if the Board votes in favor of it [next week /in August]?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Extremely unfair						Neither fair nor unfair							Extremely fair	

How likely do you believe this proposal is to become enacted? _____%

Because FAU is a university, it is not bound by the customs of the business world. Many institutions, such as banks and the postal service, and a large number of businesses that rely on these institutions, close on certain holidays. However, Florida Atlantic is free to determine its own calendar and is not required to shut down its operations on these days, and it is thought that these days would best be used for class time, rather than days off. The Board supports letting the school remain open on Labor Day, Veteran’s Day, Memorial Day, and Martin Luther King, Jr. Day, and there is a [20%, 50%, 80%] chance that this will become enacted.

How desirable or undesirable would it be for you personally if the Board of Trustees were to vote [next week /in August] in favor of this policy?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Extremely undesirable						Neither desirable nor undesirable							Extremely desirable	

If this policy were to be approved by the Board of Trustees [next week /in August], to what extent would it affect you?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Not at all						Somewhat							Greatly	

How fair do you think this policy would be if the Board votes in favor of it [next week /in August]?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Extremely unfair						Neither fair nor unfair							Extremely fair	

How likely do you believe this proposal is to become enacted? _____%

As the university grows, so does the demand for parking. The administration realizes that this has increasingly become a problem as the number of prospective students admitted to FAU becomes greater each year. During peak hours, students are sometimes forced to walk a great distance from their car to their classroom, which demonstrates the need for closer parking on the north side of campus. In order to relieve some of the competition for close parking, the Board supports building another parking garage, on the north side of campus, for which students will be charged a fee each time they enter, and there is a [20%, 50%, 80%] chance of this becoming enacted.

How desirable or undesirable would it be for you personally if the Board of Trustees were to vote [next week /in August] in favor of this policy?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Extremely undesirable						Neither desirable nor undesirable							Extremely desirable	

If this policy were to be approved by the Board of Trustees [next week /in August], to what extent would it affect you?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Not at all						Somewhat								Greatly

How fair do you think this policy would be if the Board votes in favor of it [next week /in August]?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Extremely unfair						Neither fair nor unfair							Extremely fair	

How likely do you believe this proposal is to become enacted? _____%

Florida Atlantic University strives to provide the resources and opportunities for enabling students to become active members of their communities. Because a sense of personal responsibility for one's community is such an important part of one's character, it is felt that this attitude should be fostered at every possible opportunity and that college is the ideal time for helping students along this path. The Board supports requiring two hours of mandatory community service work every semester they attend Florida Atlantic, and there is a [20%, 50%, 80%] chance that this will become enacted.

How desirable or undesirable would it be for you personally if the Board of Trustees were to vote [next week /in August] in favor of this policy?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Extremely undesirable						Neither desirable nor undesirable							Extremely desirable	

If this policy were to be approved by the Board of Trustees [next week /in August], to what extent would it affect you?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Not at all						Somewhat							Greatly	

How fair do you think this policy would be if the Board votes in favor of it [next week /in August]?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Extremely unfair						Neither fair nor unfair							Extremely fair	

How likely do you believe this proposal is to become enacted? _____%

Each year, Florida Atlantic records a number of academic markers so that the school can track its achievements and reveal areas that could improve. One, currently unutilized, method for assessing the quality of the curriculum involves requiring students to pass a comprehensive exam in the area of their major before being allowed to graduate. Students would have to show an understanding of the material they have been taught throughout their time at FAU, which would help the administration to better judge how effective it is in outlining its programs. The Board supports requiring students to pass a comprehensive exam before they can successfully graduate, and there is a [20%, 50%, 80%] chance that this will become enacted.

How desirable or undesirable would it be for you personally if the Board of Trustees were to vote [next week /in August] in favor of this policy?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Extremely undesirable						Neither desirable nor undesirable							Extremely desirable	

If this policy were to be approved by the Board of Trustees [next week /in August], to what extent would it affect you?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Not at all						Somewhat							Greatly	

How fair do you think this policy would be if the Board votes in favor of it [next week /in August]?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Extremely unfair						Neither fair nor unfair							Extremely fair	

How likely do you believe this proposal is to become enacted? _____%

Florida Atlantic has become an increasingly competitive university in the past few years. The school's success has largely been credited to the its ambitious building projects, which have increased not only the school's ability to educate a greater number of people but also the quality of education by adding new technologies and staying as up-to-date as possible. However, these improvements require heavy funding. The Board supports implementing a large tuition increase over the next two years, and there is a [20%, 50%, 80%] chance that this will become enacted.

How desirable or undesirable would it be for you personally if the Board of Trustees were to vote [next week /in August] in favor of this policy?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Extremely						Neither desirable							Extremely	
undesirable						nor undesirable							desirable	

If this policy were to be approved by the Board of Trustees [next week /in August], to what extent would it affect you?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Not at all						Somewhat							Greatly	

How fair do you think this policy would be if the Board votes in favor of it [next week /in August]?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Extremely						Neither fair							Extremely	
unfair						nor unfair							fair	

How likely do you believe this proposal is to become enacted? _____%

Table 1. Justification Scores, Pilot Study

Proposal	How Justified
Credits Increase	4.93 (4.02)
Volunteer Work	6.93 (4.75)
Language Req.	7.21 (4.41)
Lab Fee	7.33 (4.22)
Tuition Increase	7.81 (3.51)
Dorm Drink Ban	9.16 (4.60)
Comp. Exam	9.29 (4.02)
Trans-fat Ban	10.31 (4.12)
Trolley Service	11.88 (3.43)

Table 2. Desirability Ratings for Individual Proposals by Temporal Distance and Probability, Preliminary Study

Proposal	Temporal Distance	Probability		
		20%	50%	80%
Tuition Increase	Near	1.90 (1.61)	5.13 (4.01)	6.21 (3.77)
	Distant	5.09 (4.48)	5.09 (3.74)	3.43 (3.68)
Trans-Fat Ban	Near	10.37 (3.44)	11.57 (3.08)	10.31 (2.96)
	Distant	10.38 (4.63)	11.14 (4.50)	10.30 (3.11)
Dorm Drink Ban	Near	6.21 (3.41)	7.88 (3.91)	5.00 (3.42)
	Distant	6.19 (4.33)	5.95 (3.96)	8.30 (5.77)
Language Requirement	Near	5.86 (4.08)	7.53 (4.26)	7.87 (2.68)
	Distant	7.59 (5.07)	5.86 (4.66)	6.13 (4.14)
Graduation Credits	Near	5.63 (3.79)	5.21 (4.16)	5.52 (3.11)
	Distant	4.09 (3.50)	5.05 (4.73)	4.74 (3.12)
Volunteer Work	Near	7.38 (3.69)	6.25 (3.46)	7.00 (4.76)
	Distant	6.19 (3.74)	6.22 (4.70)	8.68 (4.93)
Comprehensive Exams	Near	6.95 (3.72)	7.13 (4.18)	6.52 (3.31)
	Distant	5.90 (3.78)	5.78 (4.59)	6.59 (4.50)
Lab Fee	Near	4.44 (2.58)	4.00 (3.29)	7.11 (3.33)
	Distant	4.48 (2.58)	6.36 (3.35)	5.86 (4.04)
Tolley Service	Near	11.52 (3.57)	10.47 (4.26)	12.00 (3.35)
	Distant	13.00 (3.59)	12.5 (3.56)	13.58 (2.50)

Table 3. Desirability Ratings for Individual Proposals by Temporal Distance and Probability, Main Study

Proposal	Temporal Distance	Probability		
		20%	50%	80%
Language Requirement	Near	7.27 (4.56)	6.65 (4.15)	9.45 (4.22)
	Distant	9.94 (4.58)	7.00 (4.37)	7.16 (5.06)
Community Service	Near	6.80 (4.66)	7.64 (5.34)	7.24 (5.26)
	Distant	9.26 (5.08)	9.60 (4.22)	6.39 (4.68)
Credits for Graduation	Near	3.40 (2.56)	3.95 (2.91)	6.93 (4.91)
	Distant	5.79 (4.29)	3.88 (3.08)	4.69 (3.84)
Comprehensive Exam	Near	6.71 (3.75)	5.80 (3.99)	7.86 (3.12)
	Distant	5.81 (3.87)	6.37 (4.13)	6.47 (4.42)
Parking Garage	Near	6.52 (5.11)	6.30 (4.78)	9.14 (4.15)
	Distant	8.76 (4.96)	7.63 (4.67)	9.19 (3.69)
Class on Holidays	Near	3.71 (3.91)	3.79 (3.85)	3.10 (3.02)
	Distant	3.18 (3.99)	3.38 (3.69)	4.00 (4.11)
Lab Fee	Near	4.05 (2.68)	5.14 (3.84)	4.10 (4.28)
	Distant	5.74 (3.63)	3.94 (3.64)	4.41 (3.61)
Dorm Requirement	Near	6.00 (4.10)	4.76 (3.75)	6.20 (4.89)
	Distant	6.63 (3.12)	6.71 (3.96)	6.26 (4.71)
Tuition Increase	Near	3.05 (3.61)	4.65 (4.15)	4.21 (2.83)
	Distant	4.76 (3.93)	5.68 (3.23)	3.63 (3.36)

Figure 1. Desirability Ratings by Temporal Distance and Probability, Main Study

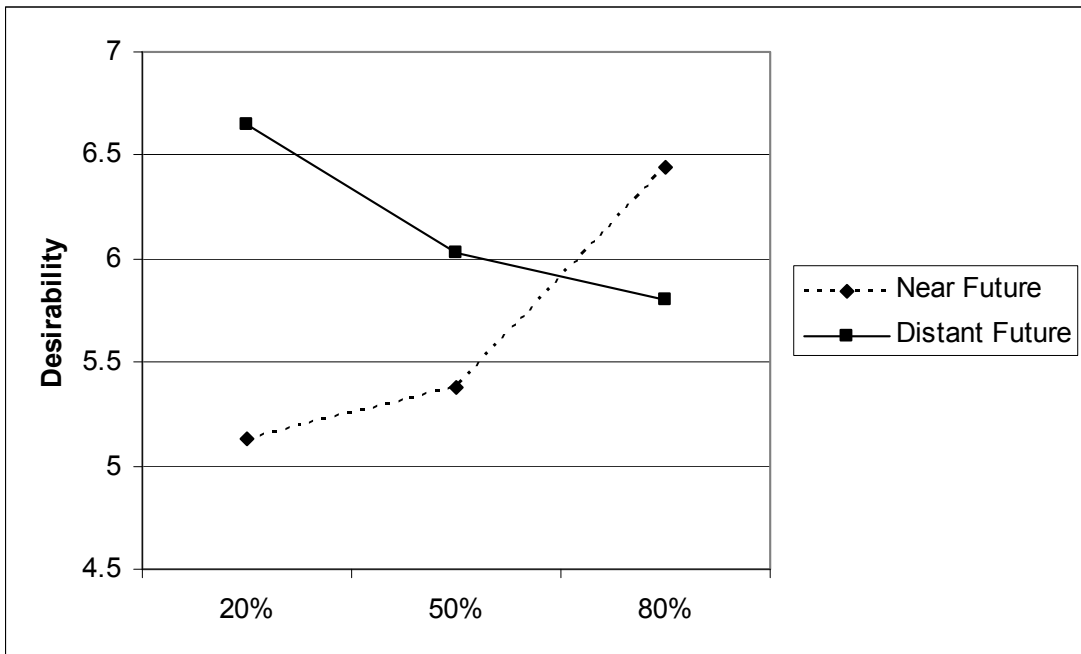
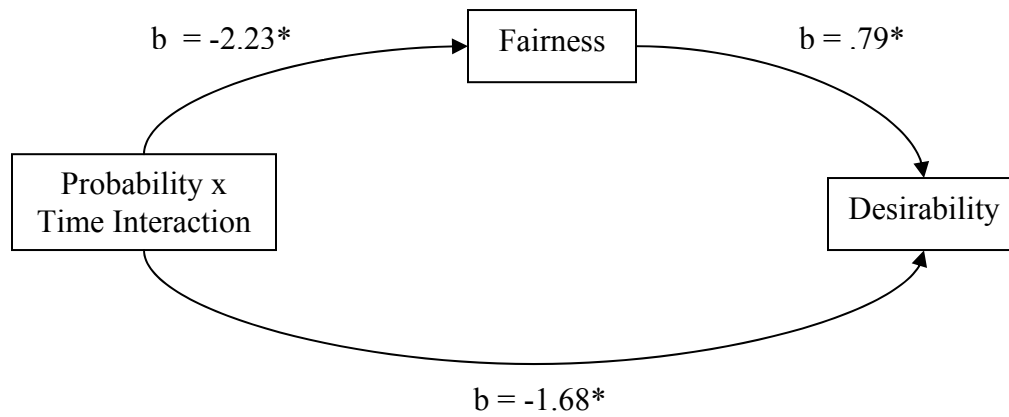


Figure 2. Path Analysis. Fairness Partially Mediates the Interaction's Effect on Desirability, Main Study



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