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Sour Grapes, Sweet Lemons, and the Anticipatory Rationalization of the Status Quo

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Integrating theories of cognitive dissonance, system justification, and dynamic thought systems, the authors hypothesized that people would engage in anticipatory rationalization of sociopolitical outcomes for which they were not responsible. In two studies, the authors found that people adjusted their judgments of the desirability of a future event to make them congruent with its perceived likelihood, but only when the event triggered motivational involvement. In Study 1, a political survey administered to 288 Democrats, Republicans, and nonpartisans prior to the Bush-Gore presidential election manipulated the perceived likelihood that each candidate would win and measured the subjective desirability of each outcome. In Study 2, 203 undergraduate students rated the desirability of a large or small tuition increase or decrease that was low, medium, or high in likelihood. Under conditions evoking high motivational involvement, unfavorable as well as favorable outcomes were judged to be more desirable as their perceived likelihood increased.

A famished fox saw some clusters of ripe black grapes hanging from a trellised vine. She resorted to all her tricks to get at them, but wearied herself in vain, for she could not reach them. At last she turned away, hiding her disappointment and saying: "The Grapes are sour, and not ripe as I thought."

—Aesop, traditional fable, *The Fox and the Grapes*

For social systems to survive in stable, legitimate forms, their constituents must be willing to adapt to outcomes that are initially defined as undesirable (e.g., Ginsberg & Weissberg, 1978; Nadeau & Blais, 1993). For example, democratic institutions are associated with relatively high levels of consent in part because of explicit procedural features that cue fairness, neutrality, and voice. As a result of these cues, people may be willing to trust that even though they might lose some decisions, they will be able to exert some control over their out-

comes in the future (e.g., Lind & Tyler, 1988; Rasinski, Tyler, & Fridkin, 1985).

An additional underestimated factor is that people imbue institutions and organizations with legitimacy and stability not only because of external cues that explicitly communicate procedural fairness but also because of the human capacity for rationalization (e.g., Elster, 1983; Jost, 1995; Lane, 1962). It has been argued that people possess a "psychological immune system" that allows them to adjust to suboptimal outcomes by enhancing the subjective value of the status quo while devaluing alternatives to it (Gilbert, Pinel, Wilson, Blumberg, & Wheatley, 1998). This notion also is consistent with research on individual adaptation and coping, which suggests that normal, healthy people make cognitive adjustments to minimize the emotional impact of threatening circumstances and to maximize the hedonic value of things that happen to them (e.g., Aspinwall & Taylor, 1992; Lyubomirsky & Ross, 1999; Taylor & Brown, 1988). Thus, the motivated tendency to bring preferences into line with expectations—as in the case of "sour grapes" and related forms of rationalization—may play an essential

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role in maintaining the mental stability of individuals and the social stability of systems. As Marcel Proust (1993) wrote, "We do not succeed in changing things according to our desires, but gradually our desires change" (p. 609).

The U.S. presidential election of 2000 provides as good an example of coping and rationalization as any political outcome in recent memory. Although pundits and citizens alike anticipated that the election between Al Gore and George W. Bush would be one of the closest in American history, no one could have predicted that it would be decided by only a handful of votes. Under such conditions—when outcomes are highly consequential and at the same time highly uncertain—people face an interesting psychological dilemma: They hope for the best but they must also prepare themselves for the worst. Indeed, in the aftermath of the inconclusive election results, the very stability of the U.S. political system depended on the willingness of the "losers" to accept the unwelcome result and support the candidate whom they had formerly opposed (see also Nadeau & Blais, 1993).

Electoral politics is not the only social institution that benefits from people's capacities to adapt to unwanted outcomes (Elster, 1983; Jost, 1995; Kuran, 1998). For instance, businesses and other work organizations could not function effectively if employees and customers were unwilling to accommodate unpleasant changes such as budget cuts and price increases. Similarly, university students are often forced to adapt to administrative decisions to implement policies affecting them in areas such as tuition and curriculum requirements. Like employees, customers, citizens, and voters, students must also psychologically prepare themselves for whatever outcome is most likely to occur, regardless of personal preferences.

How, then, do people align internal standards of desirability with external evidence concerning likelihood? How do they constrain their hopes in the face of uncertainty and, perhaps more interestingly, how do they cope defensively with the threatening possibility of unwanted outcomes? One possibility, we argue, is that the relevant actors engage in a rationalization of anticipated outcomes so that events that are perceived as more likely come to be seen as more desirable and events that are perceived as less likely come to be seen as less desirable (Elster, 1983; McGuire, 1960; McGuire & McGuire, 1991; Pyszczynski, 1982). In advancing this argument, we draw on three social psychological theories of rationalization: cognitive dissonance theory, system justification theory, and the dynamic theory of thought systems.

Theories of Rationalization

Since Freud argued that rationalization is a "defense mechanism" that allows people to excuse themselves from painful realizations about themselves and their circumstances, psychologists have been interested in the

concept of rationalization. Contemporary social psychologists have largely abandoned the field's psychodynamic origins, but the notion that cognitive and motivational factors are intertwined—often at an implicit or nonconscious level—has remained strong (e.g., Kruglanski, 1996; Kunda, 1990; Sherman, 1991). With respect to processes of rationalization, the theory of cognitive dissonance has inspired most of the empirical research in social psychology (e.g., Festinger, 1957). It also has been enormously influential among social scientists seeking to understand individual and collective responses to procedures, outcomes, and institutions (e.g., Beasley & Joslyn, 2001; Elster, 1983; Frenkel & Doob, 1976; Granberg & Nanneman, 1986; Kuran, 1998; Regan & Kilduff, 1988).

Cognitive dissonance theory. According to cognitive dissonance theory, people are "rationalizing animals" (Aronson, 1973/1989). This conclusion follows from three main bodies of research. First, studies indicate that people change their attitudes and generate post hoc justifications following hypocritical (i.e., counterattitudinal) behavior (e.g., Aronson, 1973/1989; Festinger & Carlsmith, 1959). Second, dissonance researchers have argued that people invent new reasons (rationalizations) for choices that they have made, especially when those choices are associated with aversive consequences (e.g., Cooper & Fazio, 1984; Staw, 1976). Third, people subjectively enhance the value of chosen alternatives and derogate rejected alternatives (e.g., Brehm, 1956; Lyubomirsky & Ross, 1999). These operational definitions of dissonance reduction differ in the extent to which rationalization is assumed to be a purely evaluative response versus a more cognitively elaborated set of reasons. Our investigation focuses more on evaluative responses than on elaborate justifications, but the processes of evaluation and justification are by no means opposed. On the contrary, it seems most likely that they are mutually reinforcing.

System justification theory. The theory of system justification builds in many ways on dissonance theory, but it addresses a broader set of rationalizations, including stereotypes and ideologies, that are used to rationalize the status quo as well as judgments and evaluations that are used to rationalize specific behaviors and events (Jost & Banaji, 1994; Jost, Pelham, Sheldon, & Sullivan, in press). As a general rule, dissonance researchers have confined themselves to cases of rationalization in which (a) people are personally responsible for the outcomes they justify and (b) the rationalization occurs post hoc. But what about nonvolitional outcomes? How do people respond to anticipated social and political events, including those that are not of their own choosing? According to system justification theory, people engage (to varying degrees)

in a rationalization of the existing state of affairs whether they are personally responsible and whether they stand to gain or lose. Furthermore, the legitimation needs of the system are best served by people anticipating likely outcomes and rationalizing them in advance; to the extent that people are highly motivated to justify the system, they should engage in anticipatory rationalization of probable outcomes in addition to the more typical rationalization of past action.

The dynamic theory of thought systems. Probably the most comprehensive theoretical treatment of the specific relation between expectations and evaluations comes from McGuire and McGuire's (1991) dynamic theory of "thought systems." Their general assumption is that attitudes and beliefs are linked probabilistically in the mental system so that a change in one belief produces ripple effects on other remote areas of the mental system (see also McGuire, 1960; Wyer, 1970). According to the "rationalization postulate," people cope with future events by bringing their judgments of desirability into congruence with judgments of likelihood. The authors specify a symmetrical relation, such that

This adjustment includes both (a) a "sweet lemon" rationalization such that an increase in [likelihood] should raise [desirability] and so raise the number of desirable consequences that the core event is perceived as promoting and the number of undesirable consequences it is perceived as preventing; and also (b) a "sour grapes" rationalization such that a decrease in [likelihood] should decrease [desirability] and so raise the number of undesirable consequences that the core event is perceived as promoting and the number of desirable consequences it is perceived as preventing. (McGuire & McGuire, 1991, p. 7)

Putting the "sweet lemon" and "sour grapes" rationalizations together, one derives the prediction of a positive, linear relation between judgments of likelihood and desirability. By changing the subjective probability of a core event, it should be possible to observe changes in its perceived desirability. The idea here is not simply that people hope that their wishes will be fulfilled. The rationalization postulate holds that people will even embrace and adapt to unwanted outcomes by enhancing the subjective value of an event as it becomes more likely to occur. Somewhat counterintuitively, people should even subjectively enhance the value of impending outcomes that are contrary to their own consciously held interests (Elster, 1983; Jost, 1995; Lane, 1962).

Limitations of Past Research on the Rationalization of Social and Political Outcomes

There are two separate bodies of research that are directly relevant to the rationalization of social and polit-

ical outcomes. First, a number of survey studies address postdecisional dissonance reduction following voting behavior. Second, a set of studies indicates that expectations and evaluations are intercorrelated. We briefly review the contributions and limitations of each of these lines of research before providing an overview of our own hypotheses and research designs.

Dissonance reduction and the voting booth. Social scientists often have drawn on dissonance theory in seeking to understand responses to electoral outcomes (e.g., Beasley & Joslyn, 2001; Frenkel & Doob, 1976; Granberg & Brent, 1983; Granberg & Nanneman, 1986; Regan & Kilduff, 1988). This link makes a great deal of sense given that the element (or illusion) of choice is presumed to be central to the operation of cognitive dissonance and to the effectiveness of democratic institutions. Research demonstrates that people evaluate their preferred candidates more favorably after having voted than before (Frenkel & Doob, 1976; Regan & Kilduff, 1988). In addition, people provide more diffuse support for the political system after having voted, even if their preferred candidate lost the election (Ginsberg & Weissberg, 1978; Nadeau & Blais, 1993). Thus, voting appears to increase commitment to the system as a whole.

Most previous applications of rationalization and dissonance theory to political contexts have emphasized the role of self-justification and the post hoc rationalization of one's own voting preferences or behaviors. By drawing on system justification theory (Jost & Banaji, 1994), we propose that people rationalize not only their own attitudinal or behavioral commitments but also anticipated outcomes for which they are not responsible. This approach is consistent with research on "outcome biases," according to which people attribute favorable characteristics to winning candidates and unfavorable characteristics to losing candidates once the outcome is known (Allison, Mackie, & Messick, 1996).

Our theoretical perspective also is consistent with survey results reported by Granberg and Nanneman (1986) that voters' overall liking for Ronald Reagan increased immediately following his 1980 electoral victory, and their liking for Jimmy Carter decreased following his defeat. Similarly, Beasley and Joslyn (2001) found that people whose preferred candidate lost the election subsequently elevated their evaluations of the winning (nonpreferred) candidate and derogated the losing (initially preferred) candidate. These results suggest that people do adjust their own wishes to come to terms with irreversible outcomes (see also Gilbert & Ebert, 2001; Gilbert et al., 1998), but they do not provide definitive support for the notion that people bring their evaluations into line with expectations or that they engage in a "sour grapes" rationalization of political candidates. The

chief limitation of previous studies is that rationalization is inferred from the difference between pre-election and post-election attitudes, but there is no methodological control over what happens in the interim. Thus, changes in desirability are confounded with a number of other factors, including media coverage of the elections and the candidates' actual responses to winning or losing the election.

The preference-expectation link and the role of motivational involvement. A number of studies conducted over several decades indicate that, in general, ratings of probability and desirability are positively intercorrelated (e.g., Eiser & Eiser, 1975; Granberg & Brent, 1983; McGuire, 1960; Rothbart, 1970). For instance, McGuire (1960) compared ratings of the truth and the desirability of 48 different propositions and found that the mean correlation was .40. Eiser and Eiser (1975) obtained a mean correlation of .54 between estimates of the probability and desirability of 39 possible future events. In the domain of politics, Granberg and Brent (1983) reported an average correlation of .51 between the expectation that Reagan (or Carter) would win the 1980 U.S. presidential election and the comparative evaluation of that candidate. The fairly obvious limitation of such correlational evidence, however, is that it does not allow one to distinguish between wish fulfillment (the tendency to rate desirable events as more likely to occur) and rationalization (the tendency to rate likely events as more desirable).

To overcome this ambiguity, McGuire (1960) experimentally induced a change in the belief that an event would occur to observe changes in desirability. Findings supported the general notion that people engaged in rationalization by increasing the judged desirability of a proposition and, to a lesser extent, a logically related proposition following a change in their estimates of the likelihood of that proposition being true (McGuire, 1960, p. 85). This demonstration was provocative but failed to provide a strong test of both "halves" of the rationalization postulate, which would include both (a) a "sour grapes" derogation of an initially attractive outcome and (b) a "sweet lemon" elevation of an initially unattractive outcome.

McGuire and McGuire (1991) sought to provide more concrete support for the rationalization postulate by examining the number of desirable and undesirable consequences freely generated by research participants in response to a range of attractive and unattractive events. Unfortunately, their results failed to provide any evidence of rationalization, regardless of the type of event. One reason for the lack of evidence may be that the events studied by the McGuires (e.g., "Admission prices will increase substantially for major sports

events") were not motivationally charged enough to prompt rationalization by undergraduate respondents.

A study conducted by Pyszczynski (1982) lends support to the notion that people rationalize anticipated outcomes only when they are relatively consequential. Research participants who believed that their chances of winning a lottery were relatively high were more likely to perceive the reward as attractive than were people who believed that their chances of winning were low, but only when the potential reward was large (and therefore highly motivating) and not when it was small. Pyszczynski (1982) concluded that people derogate unlikely positive outcomes as a way of avoiding disappointment, and it is true that his results seem to provide more support for the "sour grapes" derogation of the highly attractive prize than for the "sweet lemon" appreciation of the less attractive prize. However, it may be that the motivational properties of the large reward in his study—and not necessarily its level of attractiveness per se—produced the rationalization effect. In other words, people may not have cared enough about the small reward to rationalize it, but they might have rationalized a highly motivating negative possibility such as a large punishment. Thus, previous failures to support both "halves" of the rationalization postulate might be attributable to researchers' relative neglect of the importance of motivational involvement in the process of rationalization.

The notion that motivational involvement is critical to rationalization tendencies is present not only in Freudian theory but also in contemporary theorizing in the area of motivated social cognition (e.g., Festinger, 1957; Kruglanski, 1996; Kunda, 1990). If outcomes are motivationally insignificant, then it follows that people would have no need to rationalize them. If the fox truly did not care whether she reached the grapes, then she would have no psychological need to derogate them. To clarify the difference between our position and traditional dissonance theorizing, we point out that motivational involvement is not the same as personal responsibility. Thus, people may be highly affected by (and therefore rationalize) social and political outcomes that are not of their own choosing (e.g., Elster, 1983; Jost, 1995; Lane, 1962).

An increased focus on motivation is consistent with McGuire and McGuire's (1991) hypothesis that some links in a thought system are "tighter" than others. They argue that structural links among beliefs are more tightly articulated to the extent that they involve events or outcomes that are highly self-relevant. Furthermore, according to the theory of thought systems, the tighter the link, the more likely it is that a disturbance in one area will affect another. This means that changes in the perceived likelihood of an event are more likely to produce (rationalization) effects on judged desirability to

the extent that the domain is highly motivating. Thus, as Sherman (1991) has pointed out, the theory of thought systems is like other theories that stress the interplay of cognitive and motivational factors in arriving at desired conclusions (e.g., Kunda, 1990).

Summary of Hypotheses

Our integration of theories of cognitive dissonance, system justification, and dynamic thought systems led us to predict that people would engage in anticipatory rationalization of probable nonvolitional outcomes as long as they were motivationally involving. We sought to investigate both the "sour grapes" and "sweet lemon" forms of rationalization. Specifically, we hypothesized that for both initially attractive and unattractive outcomes people would bring their judgments of desirability into line with their perceptions of likelihood, but only when motivational involvement was high. For outcomes that were low in motivational involvement (whether attractive or unattractive), judgments of desirability should be unaffected by perceptions of likelihood. We examined these hypotheses in one quasi-experimental field study involving the rationalization of anticipated electoral outcomes (Study 1) and one experimental study involving the rationalization of tuition increases and decreases (Study 2).

Our main rationalization hypothesis differs from several other predictions that one could make concerning people's reactions to changes in perceived likelihood. In the realm of politics, for instance, researchers have argued for the existence of an "underdog effect" whereby people shift their preferences in the direction of the less popular (and thus less likely) candidate (e.g., Ceci & Kain, 1982). This is a tendency that would presumably lead people to shift their evaluations of a less likely outcome in a positive direction. Conversely, Mehrabian (1998) has provided evidence for a "bandwagon effect" such that people show increased support for the candidate whom they believe to be more popular (see also Simon, 1954). Our rationalization hypothesis differs from the bandwagon hypothesis largely in terms of the two hypotheses' implications for the behavior of nonpartisans and undecided voters. Whereas our hypothesis suggests that nonpartisans would be less likely than partisans to enhance the subjective desirability of the leading candidate, the bandwagon hypothesis implies that people who are not as invested in the outcome would be more likely to be influenced by consensual influence.

Our rationalization hypothesis also differs from some formulations of cognitive dissonance theory, such as those of Festinger, Riecken, and Schachter (1956) and Batson (1975), which would suggest that in the face of disconfirming evidence—such as a decrease in the likeli-

hood of a wanted outcome—people would express greater commitment toward their preferred choice. A similar prediction follows from theories of scarcity and reactance, which would predict that as a desired outcome becomes less available (i.e., less likely), it also would become more desirable (e.g., Cialdini, 2001). By contrast, our rationalization hypothesis indicates that people should engage in a subjective elevation of all outcomes to the extent that their likelihood increases.

In writing about the subjective utility of anticipated outcomes, Elster and Loewenstein (1992) proposed that people "savor" desirable events that are likely and "dread" undesirable events that are likely. The hypothesis that follows from their analysis is that the initial valence of an event will be experienced in more intense terms as its likelihood increases. The savoring of desirable events as they become more likely is consistent with the rationalization hypothesis, but the dreading of undesirable events as they become more likely is at odds with the "sweet lemon" form of rationalization.

Finally, the rationalization hypothesis also differs from what would be expected on the basis of theories of intergroup conflict (e.g., Tajfel & Turner, 1986), namely, that partisans under threat would derogate outgroup members in the presence of intense competition, as in a tightly contested political election. By contrast, our prediction, which hinges on the notion that motivated participants will come to rationalize whichever outcome they deem to be likely, is that highly involved partisans will derogate their own candidate when faced with the likelihood of his or her defeat (a "sour grapes" rationalization) and enhance or elevate ratings of the opposing candidate when faced with the likelihood that he or she will be elected (a "sweet lemon" rationalization).

STUDY 1

In the first study, we hypothesized that political partisans (who are highly self-involved), but not nonpartisans, would enhance the perceived desirability of either candidate's election in response to evidence indicating that he is likely to win. To investigate this possibility, we examined beliefs and attitudes concerning the 2000 U.S. presidential election. In the context of a brief survey, we manipulated the perceived likelihood that Gore or Bush would win the election and then measured attitudes toward each of the candidates. We also obtained information about respondents' political affiliations so that we could compare the responses of Democratic and Republican partisans (who one might expect to be highly involved in the outcome of a Gore-Bush election) with those of Independent and undecided nonpartisans (who one would expect to be less personally involved in the outcome of this election). We hypothesized that for partisans only there would be a positive, linear relation-

ship between the perceived likelihood of a given candidate's being elected and the assessed desirability of that outcome.

Method

PARTICIPANTS

During the week immediately preceding the election of November 7, 2000, we approached a total of 288 individuals and asked them to complete a short written survey at one of three locations: (a) the San Francisco airport, (b) a shopping mall in Palo Alto, California, and (c) the campus of Stanford University. Of the 286 participants who disclosed information about political affiliation, 115 indicated that they were Democrats, 83 indicated that they were Republicans, and 88 indicated they were Independents, nonpartisans, or undecided. The respondents were diverse with respect to race and ethnicity, age (ranging from 18-81, $M = 41.0$), and gender (154 men, 130 women, and 4 who declined to indicate their sex).

PROCEDURE

Research participants received one of five different versions of an election survey designed first to manipulate beliefs concerning likelihood and second to measure attitudes concerning desirability. All versions of the questionnaire began with the same introduction:

There is an expert group of political analysts (working together at Stanford, Harvard, Gallup Poll services, and the Brookings Institute) who specialize in predicting "last minute shifts" in public opinion. This group has successfully predicted the outcomes of the last four presidential elections within a 1% margin of error. According to their calculations, the most likely outcome of votes that will be cast on election day this year will be as follows . . .

Following this introduction, the questionnaire indicated that the expert group predicted either a 51% to 43% Gore victory (condition 1), a 49% to 45% Gore victory (condition 2), a 47% to 47% tie (condition 3), a 49% to 45% Bush victory (condition 4), or a 51% to 43% Bush victory (condition 5). Thus, we adapted McGuire's (1960) method of introducing a change in perceived likelihood and observing remote changes in judged desirability.

Following the manipulation of beliefs concerning likely electoral outcomes, research participants were then asked, (a) "How desirable or undesirable would it be for you if Gore were elected president?" and (b) "How desirable or undesirable would it be for you if Bush were elected president?" Participants responded to both questions on 9-point scales ranging from 1 (*strongly undesirable*) to 9 (*strongly desirable*). At the end of the survey,

research participants were asked to indicate their political affiliation (Republican, Democrat, Independent, Other), age, and gender.

Results

Effects of demographic variables. We conducted a multivariate analysis to examine the effects of gender and age on desirability ratings of the two candidates. In addition to variables of partisanship and outcome likelihood, the analysis included dummy variables for demographic variables of respondent sex and age, the latter of which was coded as 1 of 6 discrete categories according to the following age ranges: 18-30, 31-40, 41-50, 51-60, 61-70, 71 and older. The analysis yielded only a main effect of gender on desirability ratings, $F(2, 157) = 3.09$, $p < .05$. Univariate analyses revealed that a Gore presidency was rated as more desirable by female respondents ($M = 5.78$) than by male respondents ($M = 5.26$), $F(1, 158) = 4.40$, $p < .05$, whereas a Bush presidency was rated as more desirable by men ($M = 4.45$) than by women ($M = 4.16$), $F(1, 158) = 5.93$, $p < .05$. This pattern is consistent with past research on the "gender gap" in politics (see Miller, Taylor, & Buck, 1991). There were no significant main effects of age and there were no interaction effects between demographic and experimental variables. Thus, gender and age were dropped from all further analyses.

MULTIVARIATE ANALYSIS

Effects of partisanship and outcome likelihood. We conducted a multivariate analysis of variance to examine the effects of independent variables of partisanship (three levels: Republicans, Democrats, and nonpartisans) and outcome likelihood (five levels ranging from *strong likelihood of a Gore victory* to *strong likelihood of a Bush victory*) on the two dependent measures of Bush and Gore desirability ratings. The analysis yielded main effects of outcome likelihood, $F(4, 272) = 4.23$, $p < .05$, and partisanship, $F(2, 271) = 106.41$, $p < .001$, on the combined desirability scores. The predicted interaction between outcome likelihood and partisanship also was significant, $F(8, 271) = 2.14$, $p < .05$. Mean desirability ratings for Bush are graphed in Figure 1 and for Gore in Figure 2 as a function of perceived likelihood and motivational involvement (i.e., partisanship). Follow-up univariate analyses of variance were conducted to examine the specific effects of study variables on each of the Bush and Gore desirability ratings separately.

UNIVARIATE ANALYSES

Bush desirability ratings. To determine whether the perceived likelihood of Bush winning the election affected ratings of the desirability of a Bush presidency, a between-subjects univariate ANOVA was conducted. The analysis yielded a significant main effect of outcome

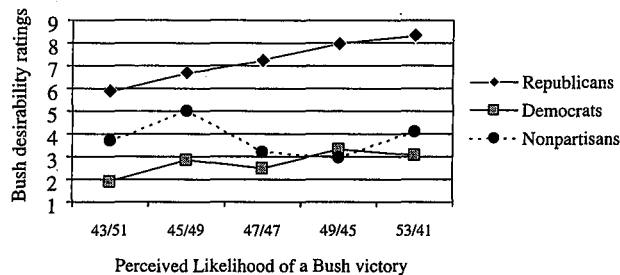


Figure 1 Desirability ratings of a Bush presidency.

likelihood, $F(4, 271) = 2.96, p < .02$, indicating that Bush was indeed perceived as more desirable as the likelihood of his winning the election increased. Not surprisingly, there was a huge main effect of partisanship, $F(2, 271) = 97.18, p < .001$, such that Bush was rated as much more desirable by Republicans than by Democrats or nonpartisans. As hypothesized, a statistically reliable interaction between outcome likelihood and partisanship also was obtained, $F(8, 271) = 2.04, p < .05$.

To clarify the nature of this two-way interaction and to investigate hypothesized linear relationships between perceived likelihood and judged desirability, weighted linear contrast tests were performed separately for each of the three different partisan groups (Republicans, Democrats, and nonpartisans). For Republican respondents, the weighted linear contrast test attained conventional levels of statistical significance, $F(1, 78) = 16.37, p < .001$. As can be seen in Figure 1, Republicans demonstrated a strong monotonic tendency to rate Bush as more desirable as the perceived likelihood of a Bush victory increased and, conversely, to rate him as less desirable as the perceived likelihood of his winning decreased, thereby supporting the "sour grapes" rationalization hypothesis. For Democratic respondents, the weighted linear contrast was marginally significant, $F(1, 110) = 16.83, p = .07$. Democrats exhibited a modest "sweet lemon" tendency to rate Bush as more desirable as his election seemed more probable (see Figure 1). For nonpartisans, the linear contrast test revealed no evidence of rationalization of the anticipated outcome, $F(1, 83) = 1.48, ns$.

Gore desirability ratings. Univariate analysis of variance revealed a strong main effect of outcome likelihood, $F(4, 271) = 4.16, p < .005$, indicating that a Gore presidency was perceived as significantly more desirable as the anticipated likelihood of his winning increased. A huge main effect of partisanship, $F(2, 271) = 86.77, p < .001$, confirmed that Gore was rated as much less desirable by Republicans than by Democrats or nonpartisans. The interaction between outcome likelihood and partisanship was found to be marginally significant, $F(8, 271) = 1.84, p < .07$.

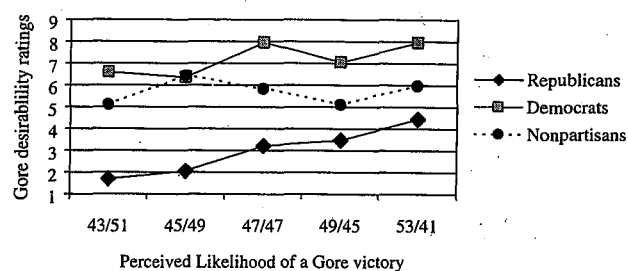


Figure 2 Desirability ratings of a Gore presidency.

Once again, to test for linearity between perceived likelihood and judged desirability, separate weighted linear contrast tests were performed on the ratings provided by the three respondent groups of Republicans, Democrats, and nonpartisans. Evidence of rationalization was obtained for both of the highly involved partisan groups (see Figure 2). Republicans showed a "sweet lemon" tendency to rate Gore as more desirable as the perceived likelihood of a Gore victory increased, $F(1, 78) = 16.82, p < .001$. The same linear contrast effect also was obtained for Democratic respondents, $F(1, 110) = 6.00, p < .05$, who exhibited a "sour grapes" tendency to rate Gore as less desirable as his election seemed less probable. Nonpartisans showed no significant rationalization tendencies, $F(1, 83) = .95, ns$, presumably because they were not sufficiently motivationally invested in the outcome of a Bush-Gore election.

Discussion

Findings from Study 1 indicate that when people are confronted with an outcome that is highly involving, their judgments of the desirability of that outcome are brought into congruence with perceptions of likelihood. Messages involving predictions of electoral outcomes made by expert sources influenced both Republican and Democratic respondents' ratings of the desirability of Bush and Gore presidencies. Specifically, we have provided some support for the "sour grapes" rationalization that people tend to derogate a previously attractive outcome as it becomes less probable and, perhaps more surprisingly, for the "sweet lemon" rationalization that people tend to elevate an initially unattractive outcome as it becomes more probable. This study also suggests that the use of rationalization is restricted to people who are highly motivated by personally consequential outcomes, whether those outcomes are considered to be favorable or unfavorable (see also Pyszczynski, 1982). Nonpartisans exhibited no tendency to rationalize anticipated electoral outcomes, either because they had no strongly preferred candidate or because they knew that their third party candidate had no chance of winning.

However, as is often the case with field studies, several methodological concerns could be raised. First, the political context in which this study occurred was clearly "one-of-a-kind." It was perhaps the strangest and closest election in U.S. history and one might well suspect that our results lack generalizability. Second, we assumed that nonpartisans would be less motivationally involved than partisans in the outcome of a Bush-Gore election, but this assumption may have been wrong. Third, partisans and nonpartisans may have differed in other ways that were not controlled. Fourth, because some of the questionnaires were collected directly from individual participants, it is conceivable that impression management concerns contributed to the pattern of results. And finally, our manipulation of perceived likelihood was confounded with consensus information, which has been shown to be a powerful determinant of attitude change (e.g., Cialdini, 2001; Stangor, Sechrist, & Jost, 2001). To address all of these concerns, we conducted a second study in which we examined student responses to a typical university policy decision, manipulated motivational involvement directly rather than relying on self-reports, collected the data in an anonymous mass-testing situation, and used a manipulation of perceived likelihood that was unrelated to perceived consensus.

STUDY 2

We have argued that past attempts to provide support for both "halves" of the rationalization postulate have failed because they did not adequately account for the role of motivational involvement in the rationalization process (McGuire & McGuire, 1991; Pyszczynski, 1982). In Study 2, university students in a mass-testing situation rated the desirability of tuition increases or decreases that were either large or small in magnitude and low, medium, or high in perceived likelihood. Thus, the research design was a 2 (outcome valence: tuition increase vs. tuition decrease) \times 2 (motivational involvement: large vs. small change) \times 3 (likelihood: low vs. medium vs. high) between-subjects factorial. It was hypothesized that the motivationally involving (large) tuition increases and decreases both would be increasingly rationalized as their likelihood increased, whereas the less motivationally engaging (small) tuition increases and decreases would not.

With this procedure, we experimentally manipulated the level of motivational involvement (i.e., by using both large and small tuition changes) rather than simply assuming that people fall into different motivational categories based on group memberships. To minimize any potential impression-management concerns, all participants completed the questionnaires simultaneously in an anonymous mass-testing situation. To prevent con-

sensus information from being conveyed along with the information regarding likelihood, perceptions of likelihood were induced by manipulating the perceived probability that a select committee of university officials (not the student body) would implement a specific outcome. By examining hypothetical increases and decreases in tuition, we were able to further investigate the possibility that anticipated rationalizations do not merely serve as disappointment buffers for initially attractive outcomes, as Pyszczynski (1982) has argued, but can occur in the presence of any motivationally charged outcome, even outcomes that are initially unattractive (see Elster, 1983; Jost, 1995; Lane, 1962). Thus, we hypothesized that a highly attractive large tuition decrease would become less desirable as it becomes less likely (a "sour grapes" rationalization) and that a highly unattractive large tuition increase should become more desirable as it becomes more likely (a "sweet lemon" rationalization).

Method

RESEARCH PARTICIPANTS

Research participants for Study 2 were 203 students from an introductory psychology class at Stanford University. The participants included 72 men, 122 women, and 9 participants who elected not to convey gender information. Ages ranged from 18 to 22 years. All of the students participated in the experiment in exchange for class credit.

PROCEDURE

Participants were instructed that the purpose of the research was to gauge freshman and sophomore opinion regarding a pending matter of tuition policy at Stanford. They were then presented with 1 of 12 versions of the following statement, according to a 2 (outcome valence: tuition increase vs. tuition decrease) \times 2 (motivational involvement: large vs. small change) \times 3 (likelihood: low vs. medium vs. high) experimental design:

According to national trends and Stanford's current economic situation, the University board of Trustees estimate that there is a 20% [or 50% or 80%] likelihood that undergraduate students will see a very large [or small] increase [or decrease] in their tuition over the next 3 years.

Participants were asked to rate how desirable or undesirable it would be for them personally if this was to occur. Ratings were made on a 15-point scale, ranging from 1 (*extremely undesirable*) to 8 (*neither desirable nor undesirable*) to 15 (*extremely desirable*).

MANIPULATION CHECKS (USING A DIFFERENT SAMPLE)

It was deemed necessary to verify that our relatively subtle experimental manipulations of perceived likelihood and motivational involvement were indeed having

their intended effects, but we were concerned that asking study respondents to explicitly repeat information contained in the experimental questionnaire would arouse suspicion and potentially bias their ratings of outcome desirability. Therefore, a separate and comparable sample of Stanford undergraduate students ($N = 183$) was exposed to the same experimental manipulations as in the main study and then asked to respond (under private, anonymous conditions) to three items checking on the manipulation of perceived likelihood and three items checking on the manipulation of motivational involvement.

Perceived likelihood. The three items used as manipulation checks for perceived likelihood were as follows: (a) "How likely do you believe it is that this tuition change will happen?" (b) "How likely do you feel it is that Stanford undergraduate tuition will remain relatively unchanged over the next 3 years?" (reverse-scored) and (c) "In your opinion, how much of a chance do you believe there is that this tuition change will actually occur?" These questions were answered on a 9-point scale, which had labels ranging from *not at all likely* to *very likely* for items 1 and 2 and *not much of a chance* to *a very good chance* for item 3. An index was computed by taking the mean of these three items ($\alpha = .83$).

We then conducted a univariate analysis of variance in which the dependent variable was perceived likelihood (the mean score on the three manipulation check items). Dummy codes for the experimental variables of perceived likelihood, valence (i.e., tuition increases vs. tuition decreases), and involvement (i.e., very large vs. very small change) were entered as independent variables. A significant main effect of likelihood condition was obtained, $F(2, 171) = 48.88, p < .001$, indicating that self-reports of perceived likelihood were indeed affected by manipulations of outcome likelihood in the intended direction. (Mean ratings of perceived likelihood were 4.26, 4.63, and 6.00 in the 20%, 50%, and 80% conditions, respectively.)

In addition, a main effect of valence indicated that tuition increases were generally perceived as more likely ($M = 6.24$) than were tuition decreases ($M = 3.64$), $F(1, 171) = 106.77, p < .001$. Valence did not interact with the likelihood manipulation, $F(2, 171) = .36$, suggesting that the likelihood manipulation exerted comparable effects in both valence conditions. For both tuition increases and decreases, mean scores on the manipulation check increased sequentially from the 20% to 50% to 80% conditions. No other main or interaction effects were obtained.

Motivational involvement. The three items used as manipulation checks for motivational involvement were as follows: (a) "If this tuition change does happen, to

what extent will it affect you personally?" (b) "To what extent do you feel that you (i.e., the student body) should have a say in a tuition change of this size?" and (c) "How much of an impact do you feel this tuition change would have on the current student body?" These questions were answered on a 9-point scale with labels ranging from *it will not affect me at all* to *it will affect me a great deal* for item 1, *no say at all* to *a very large say* for item 2, and *no impact at all* to *a very large impact* for item 3. An index was computed by taking the mean of these three items ($\alpha = .65$).

We then conducted a univariate analysis of variance with the same independent variables mentioned above and the dependent variable of perceived involvement (the mean score on the three manipulation check items). As expected, there was a significant main effect of involvement condition, $F(1, 171) = 56.44, p < .001$. Participants reported feeling more personally affected by the "very large" tuition changes ($M = 6.53$) than by the "very small" tuition changes ($M = 5.41$). There was also a main effect of valence, $F(1, 171) = 5.21, p < .05$, indicating that tuition increases were rated as more involving ($M = 6.22$) than were tuition decreases ($M = 5.68$). No other main or interaction effects were obtained.

Results

Effects of demographic variables. There were no main effects of age or gender on the desirability ratings, and there were no interactions between these demographic variables and any of the experimentally manipulated variables. Therefore, age and gender were dropped from subsequent analyses.

Effects of valence, outcome, and likelihood. A $2 \times 2 \times 3$ between-subjects analysis of variance was performed to examine the affects of motivational involvement (small vs. large tuition changes), outcome valence (increases vs. decreases in tuition), and perceived likelihood (20% vs. 50% vs. 80%) on desirability ratings of the potential outcome. Not too surprisingly, there was a huge main effect of valence, $F(1, 191) = 291.15, p < .001$, indicating that tuition decreases were always rated as more desirable than tuition increases. As hypothesized, the analysis yielded a significant two-way interaction between perceived likelihood and motivational involvement, $F(2, 191) = 5.82, p < .005$. The three-way interaction was not significant, $F(2, 191) = .32, p = .73$. Regardless of their valence, all highly involving outcomes were rationalized. Thus, large (but not small) changes were rationalized whether they involved tuition increases or decreases (see Figure 3). Because we hypothesized that people would engage in both "sweet lemon" and "sour grapes" types of rationalizations, we also conducted separate internal analyses for tuition increases and decreases.

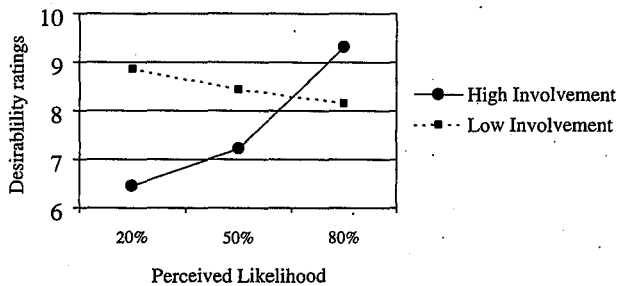


Figure 3 Desirability ratings of tuition changes (increases and decreases combined) under high versus low involvement.

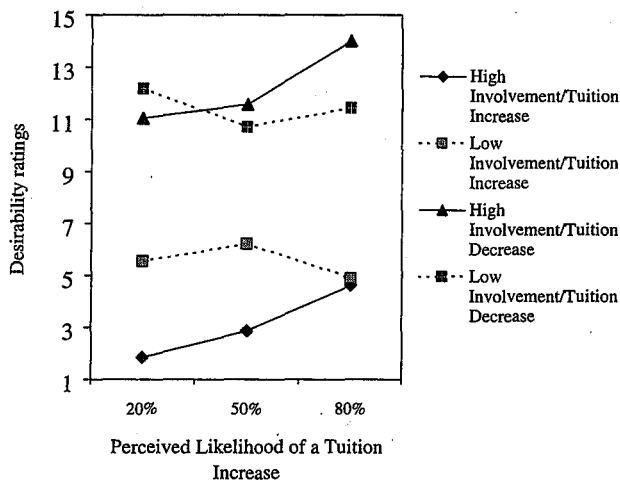


Figure 4 Desirability ratings of tuition increases and decreases under high versus low involvement.

Rationalization of tuition decreases. A univariate analysis of variance was performed to examine the effects of motivational involvement and perceived likelihood on desirability ratings of a tuition decrease (a favorable outcome). The analysis yielded only an interaction between involvement and likelihood, $F(2, 82) = 3.04, p = .05$. Means are illustrated in Figure 4.

To interpret the interaction, separate weighted linear contrast tests were performed for participants assigned to high versus low involvement conditions on judged desirability. When motivational involvement was high, a significant linear effect of likelihood was observed on desirability ratings, $F(1, 43) = 37.75, p < .001$, indicating that tuition decreases were judged to be less desirable as they became less likely (a "sour grapes" rationalization). When involvement was low, no such linear trend was observed, $F(1, 39) = .25, ns$.

Rationalization of tuition increases. Univariate analysis of variance was performed to examine the effects of involvement and likelihood on desirability ratings of a tuition increase as well (i.e., an unfavorable outcome). A main effect of involvement was observed, $F(1, 109) =$

1.36, $p < .001$, indicating that a large tuition increase was always seen as less desirable than a small tuition decrease. The predicted two-way interaction involving likelihood and involvement also attained statistical significance, $F(2, 109) = 3.28, p < .05$.

Separate weighted linear contrast tests were once again performed for participants assigned to high versus low involvement conditions (see means in Figure 4). Under conditions of high involvement, a significant linear relationship between perceived likelihood and judged desirability indicated that an aversive tuition increase was rated as less undesirable (or more desirable) as its likelihood increased, $F(1, 53) = 16.24, p < .001$, providing evidence of a "sweet lemon" rationalization. Participants assigned to the low involvement condition showed no such linear association between likelihood and desirability, $F(1, 56) = .18, ns$.

Discussion

These findings, which extend and replicate those of Study 1, suggest that when confronted with information concerning likelihood, people do indeed rationalize motivationally significant anticipated outcomes. Of interest, people engage in the rationalization of undesirable as well as desirable outcomes (e.g., Elster, 1983; Jost, 1995; Lane, 1962). Our experimental methods demonstrate a causal connection: Changes in perceived likelihood lead to changes in judged desirability. Furthermore, the effects of perceived likelihood in Study 2 are not attributable to the effects of consensus information (e.g., Cialdini, 2001; Stangor et al., 2001).

GENERAL DISCUSSION

An abundance of research on cognitive dissonance theory demonstrates that people tend to rationalize behavioral outcomes for which they are personally responsible (Aronson, 1973/1989; Brehm, 1956; Festinger, 1957; Frenkel & Doob, 1976). The present research, drawing also on system justification theory (Jost & Banaji, 1994) and the dynamic theory of thought systems (McGuire & McGuire, 1991), demonstrates that people begin to rationalize likely, uncontrollable events before they happen. In two studies, using both real-world and experimentally manipulated outcomes, we have demonstrated that people rationalize anticipated outcomes in response to their perceived likelihood.

Our evidence supports the operation of a "sour grapes" rationalization, whereby an initially attractive outcome (i.e., the election of one's preferred candidate or a tuition decrease) becomes less desirable as it becomes less likely (e.g., Elster, 1983; Pyszczynski, 1982). In addition, we have provided evidence for the more elusive "sweet lemon" rationalization, whereby an initially

unwanted outcome (i.e., the election of an opposing candidate or a tuition hike) becomes more desirable as its likelihood increases (e.g., Jost, 1995; Lane, 1962; McGuire & McGuire, 1991). In the case of both attractive and unattractive outcomes, we have determined that anticipatory rationalizations occur only with motivationally involving outcomes. It now seems likely that previous failures to find support for the rationalization hypothesis (especially the "sweet lemon" variety) may be attributable to a relative lack of motivational involvement on the part of research participants (e.g., McGuire & McGuire, 1991; Pyszczynski, 1982).

No support was obtained for the "underdog effect" in politics (Ceci & Kain, 1982), and only partial support was obtained for the "bandwagon effect" (Mehrabian, 1998; Simon, 1954). There was no evidence that making an initially attractive outcome seem less likely had the effect of enhancing commitment, liking, or differentiation from the opposition, as several alternative theories would predict (Batson, 1975; Cialdini, 2001; Festinger et al., 1956; Tajfel & Turner, 1986). Although people may have "savored" desirable events as they became more likely, they did not appear to "dread" likely undesirable events, as Elster and Loewenstein (1992) hypothesized. Rather, we found that people enhanced the subjective value of probable events and diminished the subjective value of improbable events, regardless of their valence.

LIMITATIONS AND FUTURE DIRECTIONS

Although the studies reported here extend our appreciation of the ways in which people are "rationalizing animals" (Aronson, 1973/1989), there are several limitations that should be addressed in future research. First, we know that in the social and political world people do not always adapt themselves to unwelcome realities. The historical record shows that whereas cases of rebellion and revolution are relatively infrequent compared to more prevalent tendencies toward stability and acquiescence, they certainly do occur (Gurr, 1970; Moore, 1978). Thus, more research is needed to determine the limits of rationalization. Marx and Engels (1848/1977) theorized that the working poor would only strive to overthrow "existing social conditions" when they recognized that they had "nothing to lose but their chains" (p. 246). This formulation puts the emphasis on the severity of deprivation (and its clear perception), which could be explored in other studies.

Second, we have demonstrated that "sour grapes" and "sweet lemon" rationalizations do occur in anticipation of nonvolitional political and policy outcomes, but our methods have not shed much light on the specific cognitive mechanisms implicated in these processes. It seems reasonable to suggest that rationalization is a specific case of motivated reasoning, according to which people

selectively process information to arrive at desired conclusions (Kruglanski, 1996; Kunda, 1990; Sherman, 1991). To suggest that the process is a motivated one does not mean that it is driven by a conscious "will" (see Bargh, Gollwitzer, Lee-Chai, Barndollar, & Trötschel, 2001). We are not arguing that participants in the high involvement conditions were more consciously "motivated" than participants in the low involvement conditions to shift their desirability ratings into alignment with their likelihood beliefs. Rather, we speculate that motivational involvement activates a more tightly associated cognitive network, so that changes in attitudes are more consequential when motivation is high than low (see McGuire & McGuire, 1991). This is one sensible way to conceptualize the dynamic interaction that occurs between cognitive and motivational processes (e.g., Sherman, 1991). Clearly, future research is needed to elucidate the specific psychological mechanisms at work.

Third, more work is needed to determine whether the affective functions and consequences of the "sour grapes" and "sweet lemon" rationalizations are identical. Although McGuire and McGuire (1991) suggested that both types of anticipatory rationalizations probably serve to help people meet general "autistic" or "hedonic" needs, the two processes may differ in important ways. Specifically, it is at least conceivable that "sour grapes" rationalizations would be more associated with pessimistic thinking styles (e.g., Zullow, Oettingen, Peterson, & Seligman, 1988), whereas "sweet lemon" rationalizations might be more associated with optimism (e.g., Taylor & Brown, 1988). If this is true, then the two types of rationalizations may turn out to have very different consequences for coping and mental health (e.g., Aspinwall & Taylor, 1992).

A fourth, more minor methodological limitation of our research is that perceived likelihood was confounded with social consensus in Study 1 (but not Study 2) and motivational involvement was confounded with the magnitude of the anticipated change in Study 2 (but not Study 1). Although we believe that these variables often do covary in the "real world" for psychological as well as social reasons, it would be worthwhile to further disentangle these variables in future experimental studies. Such contributions would presumably also aid in identifying boundary conditions on the phenomenon of rationalization of the status quo.

IMPLICATIONS FOR THE STABILITY OF INDIVIDUALS AND SYSTEMS

Despite the limitations of our two studies, the implications of "sour grapes" and "sweet lemon" anticipatory rationalizations for the stability and functioning of social and political systems are significant indeed (see also Elster, 1983; Jost, 1995; Lane, 1962). When news organi-

zations publish pre-election poll results it may or may not change actual voting behavior (Simon, 1954), but our first study suggests that it might lead people to begin adapting to the outcome by rationalizing the merits of the leading candidate and the demerits of the trailing candidate. In fact, it may be that democratic institutions work well to the extent that people are able and motivated to rationalize electoral outcomes, especially those outcomes that might have initially seemed unattractive. The results of our second study indicate that all systems, even autocratic systems, probably benefit from rationalizations made by their constituents (see also Kuran, 1998). It seems quite likely that decision-making authorities and those in power often benefit from the types of rationalizations displayed by our respondents (see also Haines & Jost, 2000; Jost et al., in press).

In general, the tendency to rationalize what is yet to come—especially when it is highly involving or consequential—is probably a highly adaptive process, as are many other cognitive-motivational biases (e.g., Kunda, 1990; Taylor & Brown, 1988). As McGuire and McGuire (1991) argued, mental adjustments of this kind probably help individuals to cope with uncertainty in the social environment. An election study conducted by Gilbert et al. (1998, Study 3) is also worth mentioning in this connection. With regard to the 1994 Texas gubernatorial race between George W. Bush and Ann Richards, Gilbert et al. (1998) found that Democrats adapted more successfully to the outcome than they expected and rated Bush in more favorable terms after the election than before. Although there was no attempt to directly examine rationalization processes (either anticipated or in retrospect) in the Gilbert et al. (1998) study, their interpretation in terms of the capacity of the “psychological immune system” to adapt to surprising or unwanted outcomes is consistent with our account.

What our findings suggest, especially when taken in conjunction with those of McGuire (1960), Pyszczynski (1982), and Gilbert et al. (1998), is that people are remarkably able and willing to adapt to whatever is likely to transpire, so that they begin rationalizing the status quo even before it becomes reality. As “Michael,” the character played by Jeff Goldblum in the film *The Big Chill*, observed wryly, “I don’t know anyone who could get through a day without two or three juicy rationalizations.” Multiplying this insight in light of our electoral study, we might similarly conclude that few president-elects could make it to inauguration day without the increased support coming from each opponents’ two or three rationalizations, some of which must be as juicy as the sweetest of lemons.

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