Addressing Discrepancies between Values and Behavior: 
The Motivating Effect of Reasons

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Based on the values-as-truisms hypothesis (Maio & Olson, 1998), two experiments tested whether the salience of reasons for a value increases provalue behavior over and above the effect of making the value salient. In the first experiment, we predicted and found that participants who contemplated their reasons regarding the value of equality subsequently behaved in a more egalitarian manner in a minimal group paradigm than participants whose value of equality was primed. In the second experiment, participants who contemplated their reasons regarding the value of helpfulness subsequently behaved in a more helpful manner than participants who had rated their positive feelings about the value. Overall, these results support a novel explanation for the value–behavior discrepancies that have been revealed in classic research (e.g., Darley & Batson, 1973).© 2001 Academic Press

I have a dream that one day this nation will rise up and live out the true meaning of its creed: “We hold these truths to be self-evident, that all men are created equal.” —Martin Luther King, Jr., Speech at the march on Washington (1963)

A pernicious discrepancy is revealed in Martin Luther King’s famous reference to the American “Declaration of Independence.” On the one hand, the Declaration supports the idea of equality as an inalienable right. On the other hand, despite this Declaration, minority groups in the United States have been exposed to discrimination, oppression, and even slavery. Interestingly, however, King’s statement may also identify a potential cause of this discrepancy: the truth of equality and many other social values (e.g., helpfulness) are held to be self-evident. It is possible that a blind acceptance of values contributes to antivalue behavior (e.g., discrimination). This provocative hypothesis is empirically examined in the present research.

Understanding Discrepancies between Values and Behavior

Both psychologists and the general public have expressed puzzlement and dismay over incidents in which people’s behavior contradicts cherished prosocial values. Such value–behavior discrepancies appear to be common. They occur in behaviors ranging from individual acts of discrimination (see Dovidio & Gaertner, 1998) to large-scale collective violence (Staub, 1993) and a lack of bystander intervention in emergencies (Latané & Darley, 1976). For example, in 1967, the public was astonished that 37 witnesses failed to assist a murder victim (Catherine Genovese) who had pleaded for help during a 30-min attack (Ganzberg, 1967). This incident triggered many studies exploring why people frequently fail to help in emergency situations (La-
This research has revealed that situational factors (e.g., the presence of bystanders) can dramatically reduce the occurrence of behaviors that affirm cherished values. For example, in one famous experiment, theological seminary students were assigned the task of giving a brief talk in a nearby building (Darley & Batson, 1973). The experimenters manipulated whether the seminarians were late to give their talk or on time, and they recorded whether the seminarians stopped to help an ailing person while on the way to give their talk. Results indicated that only 10% of the seminarians offered help when they were late, whereas 63% offered help when they were on time. This effect of lateness occurred regardless of whether the seminarians had been asked to give a talk on the parable of the good Samaritan, which made helpfulness salient, or a talk on an irrelevant subject. Thus, time pressure caused a large decrease in helpful behavior, despite the importance and salience of the value of helpfulness in this sample.

Note that such research does not indicate that values are superfluous. The results indicate only that situational forces can overwhelm values. According to Campbell (1963), situational forces can produce thresholds for the expression of any internal disposition. He argued that situational thresholds explain LaPiere’s (1934) well-known finding that Americans’ negative attitudes toward the Chinese minority were not expressed in their behavior toward a Chinese couple. Specifically, situational politeness norms may have made it difficult for people to express negative attitudes in discriminatory behavior. Similarly, internally held, prosocial values might not become manifest in behavior when situational factors produce substantial obstacles to the behavioral expression of these dispositions. In such situations, values may have to be particularly strong to influence behavior.

At first glance, this argument that values can often be overwhelmed by situational forces may seem inconsistent with contemporary perspectives on values, which define values as abstract goals that people consider to be important guiding principles in their lives (Rokeach, 1973; Schwartz, 1992). The “importance” component of values should presumably make them strong motivators of provalue behavior. Indeed, the importance component makes values conceptually distinct from another social psychological construct—attitudes—which are simply dispositions to evaluate an attitude object (e.g., ice cream) with some degree of favor or disfavor (Eagly & Chaiken, 1998; see also Olson & Zanna, 1993). These constructs are measured differently: People rate values in terms of their importance as guiding principles in their life, whereas attitudes are rated using scales that reflect varying degrees of favorability toward an object (see Feather, 1995; Maio & Olson, 1998). In fact, values are assumed to be stable dispositions that structure and guide attitudes, which are thought to be more unstable and malleable (Feather, 1999; Rokeach, 1973; cf. Seligman & Katz, 1996).

Consistent with the notion that values are influential, researchers have found that values occupy central positions in cognitive networks of attitudes and beliefs (Gilchrist, 1995; Gold & Robbins, 1979; Gold & Russ, 1977; Thomsen, Lavine, & Kounios, 1996) and that values reflect universal needs and motivations (Schwartz, 1992; see also Feather, 1995). In addition, the expression of values is considered one of the most basic psychological functions of attitudes (Katz, 1960; Herek, 1986; Maio & Olson, 1994, 1995a, 1995b, 2000a, 2000b; Murray, Haddock, & Zanna, 1996). Thus, many social psychologists consider values to be among the most important psychological constructs (e.g., Feather, 1990; Rokeach, 1973; Schwartz, 1992, 1996; Seligman & Katz, 1996).

**Values as Truisms**

Given the apparent strength of values, it may seem that they should be sufficiently strong to influence behavior even in situations with moderate to high situational thresholds. An examination of Rokeach’s (1973) seminal description of values, however, raises questions about the strength of values because it is ambiguous whether people possess strong cognitive support for their values. On the one hand, Rokeach suggested that people think extensively about their values and reasons to favor some values over others, which should provide them with many arguments supporting their values. On the other hand, he also stated that values might be learned in an “all-or-none” manner with little conscious reflection. For example, children are not told that they should treat people just a little equally or that they should be just a little honest. Instead, children are authoritatively told that such ideals are important, and it is assumed that the goodness in the ideals is self-evident or will become self-evident in time. Further, if any individual acts against a value, the person’s behavior is socially sanctioned or punished.

We believe that the “noncontemplative” process is dominant in value formation and that this process causes values to function much like truisms (Maio & Olson, 1998). Values are widely shared and rarely questioned; consequently, people may fail to build cogent arguments supporting their values. Rather than possess cognitive support for their values, people may typically possess only strong affective support for their values (Maio & Olson, 1998). That is, people may consider particular values to be important because they attach strong, positive feelings to the values and

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1 We do not suggest that values have no influence on behavior in these situations. Values and personal norms can influence prosocial behavior, even if their impact is reduced by situational factors (see, e.g., Schwartz, 1977).
not because they associate cogent arguments with the values. Indeed, past research has found that emotional conviction about an issue does not necessarily reflect the existence of strong cognitive support and beliefs regarding the issue (Abelson, 1988; Edwards & Smith, 1996). Perhaps the lack of cognitive support for values may make them more weak and vulnerable to change than one would otherwise expect.

This hypothesis has received empirical support. In several experiments, we tested whether analyzing reasons for values causes people to change their values (Maio & Olson, 1998). Theoretically, if values lack cognitive support, then asking people to provide the reasons for their values should result in them generating a relatively random collection of accessible and easy-to-verbalize thoughts, which should cause people to change their values. In contrast, if values possess strong cognitive support, then analyzing reasons should cause people to access reasons that they have previously considered, which should not cause the values to change. In a different domain, Wilson and his colleagues have found that analyzing reasons for one’s attitude toward an object (e.g., attitude toward a beverage) causes attitude change only when attitudes have a “strong, amorphous affective component with few supporting cognitions” (Wilson, Dunn, Kraft, & Lisle, 1989, p. 308; Wilson, Kraft, & Dunn, 1989; Wilson et al., 1993).

As expected, results indicated that participants who analyzed reasons for values changed their ratings of those values significantly more than did participants in control conditions. This value change was bidirectional (i.e., the values became either more or less important). Thus, the reasons analysis did not consistently produce more extreme (or important) values—some participants became more extreme and others became less extreme (resulting in no difference in final values between conditions). Importantly, the effect of analyzing reasons on values was eliminated when participants were first provided with an opportunity to learn arguments supporting their values (Maio & Olson, 1998). Thus, the effect of analyzing reasons on value change appears to reflect a lack of cognitive support for values.

Additional results further supported the hypothesis that values function like truisms. Specifically, participants agreed very highly with the values, listed few reasons to support the values (and far fewer against the values), showed weak relations between their reasons and their values, indicated strong positive feelings about the values, and showed strong relations between their feelings about the values and the importance of the values. Overall, these results are consistent with the hypothesis that values possess affective support, but not cognitive support.

Effects of Making Values Nontruistic

These findings also raise the possibility that the lack of cognitive support for values is one important reason why people frequently fail to exhibit value-consistent behavior. As with other known truisms (see McGuire, 1964), values may function as paper tigers, appearing strong only when unchallenged by external factors. In situations where values are challenged, the absence of cognitive support for values may interfere with provalue behavior. If individuals were given cognitive support for their values, however, they might exhibit more provalue behavior. For example, in a situation that provides incentive for discriminating, people might be more likely to treat others equally when they have been given cognitive support for the value of equality than when they have not.

Such potential effects of cognitive support are important for both practical and theoretical reasons. From a practical perspective, the provision of cognitive support could affect a variety of value-relevant behaviors. For example, the provision of cognitive support for the value of equality might reduce discrimination against a number of minority groups (e.g., women and African Americans) across many contexts (e.g., work and social contexts). These diverse effects would indicate a powerful impact of cognitive support.

From a theoretical perspective, it would be interesting to discover whether the provision of cognitive support for a value increases provalue behavior over and above the effect of simply making the value salient. If our hypothesis is correct, the effect of providing cognitive support for a value should be stronger than the effect of making the value salient because cognitive support is presumed to do more than just increase the accessibility of the value. We propose that cognitive support motivates increased provalue behavior by counterbalancing the reasons for behaving in an antivalue manner. That is, cognitive support increases the perceived rationality of the value as a guide for behavior. Consider a situation wherein people are asked to donate money to a charity. People in this situation may easily retrieve or construct reasons why they should not donate (e.g., lack of money and an impolite request). In contrast, the only accessible reason for donating might be the value of helpfulness itself, which might be insufficient to counterbalance the opposing reasons. If people also spontaneously retrieved reasons supporting the value (e.g., society relies on helpfulness and helpfulness promotes harmony), these reasons might increase the perceived rationality of helpfulness, counterbalance the opposing forces, and facilitate provalue behavior. Put simply, salient cognitive support might prevent values from functioning as paper tigers.

At first glance, these predictions may seem inconsistent with prior findings that analyzing reasons for attitudes reduces subsequent attitude–behavior correlations (Wilson, Dunn et al., 1989). That is, making salient cognitive support for an attitude causes people to form post-reasons-analysis attitudes that are incongruent with their subsequent behavior. Given these findings, it could be suggested that making
salient reasons for a value should decrease subsequent value–behavior correlations, rather than increase the amount of subsequent provalue behavior.

In fact, our predictions and the prior findings are consistent. According to Wilson, Dunn et al. (1989), analyzing reasons causes participants to access momentarily verbalizable reasons that influence their attitude immediately after reasons analysis, but the influence of these reasons eventually decays, thereby returning the attitude and subsequent attitude-relevant behavior to their original, affective bases. Consequently, the immediate post-reasons-analysis attitude is often incongruent with the later behavior. Consistent with this reasoning, post-reasons-analysis attitudes are less incongruent with subsequent behavior when there is a short interval before the measurement of behavior than when there is a long delay (Wilson, Dunn et al., 1989). In addition, analyzing reasons for an attitude increases subsequent attitude–behavior correlations when the instrumental attributes of the attitude object are reconsidered prior to target behavior (Millar & Tesser, 1986; Wilson, Dunn et al., 1989). Similarly, our predictions require assessing the target behavior immediately after the cognitive support is made salient, ensuring that the behavior can be based on this salient cognitive support. In addition, our predictions focus on behavior in situations that provide an incentive to behave in a manner opposing the value, and such situations should motivate people to consider and utilize any accessible cognitive support. Moreover, even if cognitive support is made salient by asking people to contemplate reasons for or against the value, most of participants’ reasons will directly support the subsequent provalue behavior (Maio & Olson, 1998). Thus, making salient reasons for a value should increase the amount of immediately ensuing provalue behavior within value-challenging situations.²

Overall, then, reasons salience should produce more provalue behavior by linking the value to more concrete and retrievable information (e.g., benefits from provalue behavior). As a result, the value should subsequently seem more rational as a guide for behavior, thereby counterbalancing situational incentives to behave inconsistently with the value. In contrast, when value-relevant reasons have not been made salient, people should have difficulty forming or retrieving support for the provalue behavior. Moreover, because the value itself is simply a vague feeling about its importance, it should be insufficient to mobilize provalue behavior in the face of situational incentives. Therefore, making salient reasons for a value should elicit more subsequent provalue behavior in value-opposing situations than simply making salient the value itself. The present research tests this hypothesis.

EXPERIMENT 1

Our first experiment tested whether making salient reasons for the value of equality causes greater egalitarian (provalue) behavior. Participants were asked to (a) list reasons for or against the value of equality (reasons salient condition), (b) complete a series of tasks that made the value of equality salient (value salient condition), or (c) complete neither the reasons listing nor the priming tasks (control condition).

We examined the effect of the reasons salience manipulation on subsequent behavior in a situation where the value of equality conflicted with situational incentives. Specifically, behavior was assessed in a version of the minimal group paradigm (Tajfel, 1970). In this paradigm, participants are randomly assigned to one of two groups and then asked to allocate “points” to other group members, using Tajfel (1970) matrices. Because equality is one of several motives in the Tajfel (1970) matrices, it is possible to measure the extent to which people choose in-group favoritism over equality. Past research has found that participants in the minimal group paradigm tend to discriminate in favor of their own group when equality is the alternative (see, e.g., Bourhis, Sachdev, & Gagnon, 1994; Tajfel & Turner, 1986; Taylor & Moghaddam, 1987). In our version of this paradigm, we further enhanced the incentive to discriminate by indirectly rewarding participants for discrimination (see below). Yet, we expected that participants in the reasons salient condition would be less likely to show in-group favoritism, and more likely to make equal allocations, than participants in the value salient or control conditions.

Method

Participants

Participants were 177 undergraduate psychology students (97 women and 80 men) at the University of Western Ontario, who participated for course credit. Nine participants were omitted from the analyses because of failure to follow instructions (N = 5) or suspicion (N = 4).

Procedure

Participants took part in groups of 3 to 10 people. To prevent communication among participants and to ensure

² Although our reasoning suggests that salient reasons should increase the amount of provalue behavior, it does not suggest that making salient reasons for a value should increase subsequent value–behavior correlations. We do not expect this result because, consistent with prior research (Maio & Olson, 1998), there should be little variation in the importance that participants attach to their postreasons values. Most, if not all, of the participants should regard their postreasons value as being highly important because people who are asked to list reasons for a value tend to list mostly provalue reasons. Consequently, the values might not vary sufficiently to exhibit significant correlations with subsequent behavior. In fact, this speculation follows directly from the hypothesis that values are truisms because truisms by definition are universally endorsed. (In contrast, attitudes can vary tremendously across people.)
privacy, the experimenter seated the participants approximately 10 ft apart. Participants in the reasons salient and value salient conditions were told that they would be participating in two different “studies.” The “first study” contained the manipulation, and the “second study” contained the measure of intergroup discrimination. (This unrelated experiments technique is frequently used to examine the effects of priming goals, such as values, on behavior; see Bargh & Barndollar, 1996). Participants in the control condition simply completed the measure of intergroup discrimination.

**Experimental Manipulation**

*Reasons salient condition.* To prevent participants from detecting similarities between the “first study” and the “second study,” participants in the reasons salient condition were told that the “first study” was an investigation of abstract writing skills. Participants were (falsely) told that different participants were being asked to write about different abstract concepts and that they would each receive a booklet that identifies a particular concept for them to write about. Next, participants received a five-page booklet. The first page contained the following instructions:

We would like you to think about reasons that, in general, could be used to support or oppose the importance of treating others equally. For example, you might believe that people should treat others equally because equal treatment allows people to succeed or fail according to their own abilities. In contrast, you might believe that people should not treat others equally because some people need special treatment in order to succeed. (If you would like, you can write some reasons that support and some reasons that oppose the importance of treating others equally.) We would like you to explain as clearly as possible how each of your reasons supports or opposes the importance of treating others equally. Try to organize your thoughts before you write.

The next three pages of the booklet contained blank lines for participants to write their reasons. Participants were given 20 min to write their reasons, and they were asked to use the entire time. After the 20 min were up, participants were asked to turn to the last page of their booklet and answer a question on that page. This question asked participants to rate the importance of equality to them, using a 7-point scale from 0 (not important) to 6 (extremely important).

*Value salient condition.* To prevent participants from detecting similarities between the “first study” and the “second study,” participants in the value priming condition were told that the “first study” was an investigation of thematic anagram solving skills. The experimenter explained that anagrams are words that have their letters rearranged in scrambled order. He stated that puzzle books often contain sets of anagrams and that each set typically has hidden words that are related by a common theme. The experimenter stated that, to investigate the effect of these themes, each participant was being asked to solve a set of anagrams related to a theme and that each participant would receive a different theme. In reality, all participants were given seven anagrams that were related to the theme of equality. The hidden words were equality, even, same, balance, parallel, fair, and identical. Participants were given 20 min to solve the anagrams. Because two of the anagrams were particularly difficult (identical and parallel), most participants spent the entire 20 min trying to solve them. After the 20 min, participants were asked to guess the theme of their anagrams and to write down their guess. Fifty-eight percent of the participants correctly guessed equality, and an additional 18% guessed a synonym of equality (e.g., similarity). Participants were then asked to check the last page of their anagram booklet for the theme of their anagrams (equality).

Below the theme, participants were asked to rate the importance of equality to them using a 7-point scale from 0 (not important) to 6 (extremely important).

**Control condition.** Participants in this condition simply completed the measure of intergroup discrimination.

**Measure of Intergroup Discrimination**

Participants were told that the purpose of the “second study” was to examine decision making. They were told that they were being randomly assigned to either a “red group” or a “blue group” and that they were being asked to make decisions that would affect members of both groups. To randomly assign participants, they were asked to draw a slip of paper from a cup. Half of the slips in the cup had “red” printed on them, whereas the other half had “blue” printed on them. On all of the slips, there was a number between 1 and 100. Participants were told that the number was a code for them to write in their decision booklets, which the experimenter subsequently distributed.

Next, the experimenter informed participants that they were being asked to make decisions before they played a (fictitious) 20-questions game. The experimenter stated that their decisions would affect future participants who, in the following week, would also be randomly assigned a group color and a code number. He stated that these future participants would also play a 20-questions game and would start their game with a specific number of points, which the current participants would decide. The experimenter then gave participants general instructions on how to make point allocations using the matrices in their booklets (see Bourhis et al., 1994, for a description of these instructions).

After explaining how to allocate points, the experimenter mentioned a “caveat” to their task. Specifically, participants were told that they would start their 20-questions game with the average number of points that members of their group

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3 The experimenter was not blind to participants’ experimental condition in Experiment 1. Nonetheless, the results of Experiment 1 are similar to those in Experiment 2, even though Experiment 2 utilized a confederate who was blind to participants’ experimental condition.
assigned to future members of their own group. Thus, the more points that participants allocated to their own group, the more points they would receive themselves. This “caveat” is a modification of the Tajfel (1970) paradigm that gives participants added incentive to favor their own group (see Turner, 1978). Thus, the modification served to increase the conflict between participants’ value of equality and situational incentives to favor their own group.

Participants were then asked to complete their decision booklets. The first page of the booklet repeated the general instructions that had been provided by the experimenter. The second page asked for participants’ code number and their group color. The next six pages each contained one Tajfel matrix (see Fig. 1 for two examples). The Tajfel matrices were adapted from Bourhis et al. (1994). Each matrix contained two rows and 13 columns. At the beginning of each row, there was a code number designating a future participant and a color to identify the group to which the designated person belonged. The top row always identified a member of the red group, whereas the bottom row always identified a member of the blue group. For each matrix, participants were asked to circle a column corresponding to the number of points that they wanted to allocate to the two people who were identified at the beginning of each row. Participants were also asked to write their choice below the matrix.

Two of the matrices allowed us to examine the extent to which participants were motivated to allocate points equally. From the perspective of a red group member, one of these two matrices pitted the equality strategy against in-group favoritism (see top half of Fig. 1). Using this matrix, we calculated red group members’ in-group favoritism by counting the number of columns from the most egalitarian option to the column that was chosen by the participant. The penultimate page in the booklet asked for participants’ age and sex. The final page asked for their comments and perceptions regarding the tasks that they had completed. Participants were then probed for suspicion, debriefed, and given a feedback letter.

Results and Discussion

For each of the dependent variables, preliminary analyses revealed no main effects or interactions involving sex of participant. Consequently, sex was not included as a factor in the reported analyses.

Manipulation Checks

Reasons for and against equality. To verify that the experimental condition elicited a majority of reasons that favored equality, participants’ reasons in this condition were content analyzed. Two raters independently coded each participant’s statements as (a) reasons supporting equality, (b) reasons opposing equality, or (c) nonreasons. The raters agreed on 87.45% of their codings. To provide final counts of each participant’s reasons for agreement and disagreement, the raters discussed any discrepancies, and final counts were decided by consensus. Results indicated that participants listed significantly more reasons ($M = 2.92$) supporting equality than reasons against equality ($M = 1.23$), $t(51) = 3.75, p < .001$. Thus, as in previous research (Maio & Olson, 1998), the majority of reasons supported the value.

Importance of equality. Because we did not want to prime equality in the control condition, control participants did not rate the importance of equality. Consequently, we could not compare ratings of the importance of equality in the control condition with ratings in the reasons salient and value salient conditions. Nevertheless, a $t$ test was con-

<table>
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<tr>
<th>Matrix 1 (RED: equality versus in-group favoritism; BLUE: equality and in-group favoritism versus no strategy)</th>
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<tr>
<td>115 RED</td>
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<tr>
<td>128 BLUE</td>
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<tr>
<th>Matrix 2 (RED: no strategy versus equality and in-group favoritism; BLUE: in-group favoritism versus equality)</th>
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<tbody>
<tr>
<td>116 RED</td>
</tr>
<tr>
<td>113 BLUE</td>
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**FIG. 1.** The point allocation matrices used to measure the equality motivation in Experiment 1.
ducted in order to determine whether reasons salience produced more positive ratings of equality \((M = 4.82)\) than did value salience \((M = 4.65)\). As expected, results indicated no significant difference between conditions, \(|t|(94) < 1, \text{ns.}\) This result is consistent with the values-as-truisms hypothesis and our prior research because participants’ reasons should not make participants’ values more extreme in an absolute sense. Most values are already so important that there is little room for them to become more important. Indeed, although making salient value-relevant reasons reliably changes values (Maio & Olson, 1998), the changes vary in direction: Some participants become more extreme and some less extreme because some of the reasons (even provalue ones) imply a somewhat less extreme value than was originally held. Thus, reasons salience should not cause increased provalue behavior by increasing the average importance of the value across participants.

**Accessibility of equality.** As indicated in our introduction to this experiment, we expected that both the reasons salient and value salient conditions would prime participants’ value of equality. To verify that these conditions primed equality to the same degree, 52 additional participants (35 females and 17 males) completed the manipulation followed by a computer measure of the accessibility of equality. (In the main experiment, we could not include this measure because the measure might have primed equality in the control condition, which would have confounded the experiment.)

The measure of value accessibility asked participants to quickly rate the importance of “equality” to them using a 4-point scale from 0 (not at all important) to 3 (very important). Three other values were included as fillers (forgiving, intelligence, and power). There were two blocks of presentation of these four values. Six other values were used as practice values (social order, clean, family security, self-respect, honesty, and helpfulness). Consistent with previous research (e.g., Fazio, Chen, McDonell, & Sherman, 1982; Powell & Fazio, 1984), a reciprocal transformation of participants’ response latencies was applied.

A 3 \(\times\) 2 (condition \(\times\) block) mixed ANOVA was conducted on the reciprocal response latencies for the value of equality, with experimental condition as the between-subjects factor and presentation block as the within-subjects factor. Results indicated a significant effect of the manipulation, \(F(2, 49) = 3.78, p < .04.\) A planned contrast revealed that response latencies in the reasons salient \((M = 1625\) ms\) and value salient conditions \((M = 1617\) ms\) were faster than response latencies in the control condition \((M = 2145\) ms\), \(t(49) = 1.94, p < .05.\) Response latencies in the reasons salient and value salient conditions did not differ significantly, \(|t|(49) < 1, \text{ns.}\) Thus, the reasons salient and value salient conditions primed equality, compared to the control condition, and did so to the same degree.

**Effect of Reasons Salience on Egalitarian Behavior**

We submitted participants’ in-group favoritism scores to a one-way, three-cell (control, value salient, and reasons salient) ANOVA. Results indicated a significant effect of the experimental manipulation, \(F(2, 164) = 5.72, p < .01.\) As expected, a planned contrast revealed that in-group favoritism was lower for participants in the reasons salient condition \((M = 4.08)\) than for participants in the values salient \((M = 7.02)\) or control conditions \((M = 6.75), t(164) = 3.37, p < .005.\) (Pairwise contrasts between the reasons salient and value salient and control conditions were also significant.) The tendency to choose equality was not significantly different in the value salient versus control conditions, \(|t|(164) < 1, \text{ns.}\)

**Supplementary Analyses**

**Relations between behavior and reasons.** We tested our assumption that making salient reasons for a value increases subsequent provalue behavior by making the values more concrete and rational to participants. If this mechanism is correct, then participants should exhibit greater egalitarian behavior when many clear reasons and concrete instantiations of equality are salient to them than when a low number of clear reasons and concrete instantiations are salient to them. To test this hypothesis, we counted the number of clear reasons and concrete examples that each participant listed regarding the value of equality. The concrete instan-

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\(^4\) Our approach to calculating in-group favoritism is similar to a method that Berkowitz (1994) adopted in order to avoid potential pitfalls of motivational “pull” scores, which are frequently used to examine Tajfel matrices (see Drigotas, Insko, & Schopler, 1998, for a review of this controversy). Nevertheless, using standard pull score calculations (see Bourhis et al., 1994), we also used participants’ responses across all six matrices to calculate six pull scores that are ostensibly distinct. These pull scores tapped participants’ motivation to (a) favor their in-group rather than allocate points equally, (b) allocate points equally rather than favor their in-group, (c) maximize in-group profit and the difference in favor of their group rather than maximize joint profit, (d) maximize joint profit rather than maximize in-group profit and the difference in favor of their group, (e) maximize the difference in favor of their group rather than maximize in-group profit and joint profit, and (f) maximize in-group profit and joint profit rather than maximize the difference in favor of their group. Separate one-way ANOVAs for these motivation scores revealed significant effects of the experimental manipulation on the former three pull scores. For each score, the tendency to favor the in-group was lower for participants in the reasons salient condition than for participants in the values salient or control conditions, and the tendency to favor the in-group was not significantly different in the value salient versus control conditions. None of the other one-way ANOVAs were significant, presumably because the other scores did not purely reflect egalitarian motives and none of the other matrices made salient the option to allocate points equally. Nevertheless, we replicated the effect of the manipulation on in-group favoritism using an additional index that subtracted the total amount awarded to the in-group from the total amount awarded to the out-group (e.g., Diehl, 1990; Echabe, 1990; Platow, McClinton, & Liebrand, 1990). Thus, the effect was remarkably robust across analyses.
tions were statements that described relevant issues (e.g., affirmative action and remedial education) and target groups (e.g., African Americans and the elderly), without specifying precisely how the issues or groups supported or refuted the importance of equality. Because these statements lacked argumentative direction, they were coded as nonreasons in the coding of clear reasons, thereby preventing double counting of participants’ statements.

We summed the number of clear reasons and concrete instantiations of the value in order to achieve an overall index of the extent to which the participants had linked the value to concrete cognitions. To examine the reliability of this index, a second rater independently coded a subset of 20 participants’ reasons. The second rater’s index of concrete cognitions was significantly correlated with the first rater’s index of concrete cognitions, $r(18) = .82, p < .05$. As expected, participants who possessed high scores on this index exhibited significantly less in-group favoritism than did participants who possessed low scores on the index, $r(49) = -.37, p < .02$.

It is also possible that the reasons analysis simply made salient reasons for performing the specific behavior in the experiment, rather than reasons supporting the value of equality more generally. Inspection of participants’ reasons identified only one theme that was potentially relevant to their later behavior in the minimal group paradigm. Specifically, some participants stated that equality allows people to succeed or fail on the basis of their own abilities, which is somewhat relevant to resource allocations in the minimal group paradigm because egalitarian allocations provided a level playing field for members of both groups (who could then succeed or fail in the “20-questions game” based on their abilities). Perhaps participants in the reasons salient condition exhibited increased egalitarian allocations simply because they were made aware of this particular behavior-relevant reason and not because of more concrete cognitive support in general. However, only 15 participants mentioned the notion of allowing people to succeed or fail on the basis of their own abilities, and there was a nonsignificant negative correlation between the presence of this reason and the tendency to favor equality over in-group favoritism, $r(48) = -.19, p < .20$. Thus, egalitarian behavior was not increased by the generation of this specific behavioral reason.

Finally, we examined the relation between the favorability of participants’ reasons (number supporting equality minus number opposing equality) and their in-group favoritism. Despite the restricted range in the net favorability of participants’ reasons (i.e., most reasons were positive), the tendency to allocate points equally was significantly predicted by the net favorability of participants’ reasons, $r(48) = .27, p = .05$.

Value importance and egalitarian behavior. In both the reasons salient and value salient conditions, the correlations between ratings of the importance of equality and in-group favoritism were not significant.

Summary

As expected, making salient reasons for the value of equality caused participants to exhibit less in-group favoritism, and more egalitarian behavior, in the minimal group paradigm. This effect did not occur simply because the reasons for equality primed the value; reasons salience caused more egalitarian behavior than did value salience, which had no effect on point allocations. In addition, this effect did not occur because the salient reasons caused people to rate equality as more important; equality was not rated as more important after reasons were made salient than after the value was made salient. Instead, the effect was related to the extent to which the manipulation made participants cognizant of many clear reasons and concrete instantiations of the value of equality. That is, as expected, the salience of a great amount of cognitive support per se predicted the increase in egalitarian behavior.

EXPERIMENT 2

The second experiment provided an additional test of our hypothesis that making salient reasons for a prosocial value can produce more prosocial behavior. The experiment used a different target value and a new experimental manipulation. The target value was helpfulness; some participants were asked to indicate their reasons for the value of helpfulness, making salient cognitive support for the value; other participants were asked to rate their feelings about the value, thereby making salient the value and its affective component. We tested whether these manipulations affected subsequent helpful behavior. To measure helpful behavior, we recorded the amount of time that participants offered in response to a confederate’s request for voluntary participation in additional research. This measure again presented a situation where there was justification for behaving in an antivalue manner because participants already contribute a great deal to research through course requirements (40 h across 2 years), and it is customary to pay participants for additional research. As in Experiment 1, we expected that participants would exhibit more helpful behavior in the reasons salient condition than in the value salient condition.

Unlike Experiment 1, we also included a measure of attitudes toward relevant behaviors. That is, we examined the effect of reasons salience on participants’ attitudes toward several helpful behaviors. We measured these attitudes in order to verify that they were unaffected by the experimental manipulation. This prediction is based on our hypothesis that people will use salient value-supporting reasons primarily in situations that provide an incentive to behave in a manner that is contrary to the value. In such
situations, people should be motivated to think about and utilize their reasons. In contrast, people may not be motivated to consider and utilize their reasons when they are simply asked to indicate an uninvolving attitude.

Method

Participants

Participants were 58 psychology undergraduates (50 women and 8 men) at Cardiff University, who participated for course credit. The data from 2 additional participants were deleted from the analyses because of suspicion.

Overview

Participants took part individually. They were told that they would be participating in several different studies that examine affective and cognitive processing. The “first study” contained the experimental manipulation. Participants in the reasons salient condition were asked to list reasons for the value of tradition, which was a filler value, and reasons for the target value, helpfulness. In the control condition, participants rated their feelings about these values. Through appropriate contrivances (described below), participants never proceeded to a “second study.” Instead, the principal dependent measure was unobtrusively presented after participants in both conditions responded to the value of helpfulness. This measure was the amount of time that participants volunteered for a future research study. A confederate, who was blind to experimental condition, solicited participation in the study. He then presented a brief measure of attitudes toward helpful behaviors, which all participants agreed to complete. Finally, participants were probed for suspicion and debriefed.

Experimental Manipulation

Reasons salient condition. The experimenter stated that she wanted participants to list their reasons for considering three different values to be important or unimportant. That is, she wished to know why each value was important or unimportant to them as a guiding principle in their life. Participants were told that they would be given 20 min to list their reasons for all three values and that they would receive a separate page for each value. They were asked to be as specific as possible and to list as many reasons as possible. Participants were then given a page to list their reasons for the value of tradition, followed by a page to list their reasons for the value of helpfulness. For each value, participants were given 8 min to list their reasons.

Contrary to participants’ expectations, the experimenter never presented the third value. The experimenter stated that she had run out of sheets for the third value, and, consequently, she had to go and see her supervisor, who had spare copies of her questionnaires. This cover story enabled the experimenter to unobtrusively introduce the confederate, who presented the dependent measure.

Value salient condition. The procedure in the value salient condition was similar to that in the reasons salient condition, except that participants in the value salient condition were asked to indicate their feelings about three values. Specifically, participants were asked to rate their feelings about the values using 10 7-point (−3 to +3) semantic-differential scales (e.g., sad/happy, unpleasant/pleasant, and awful/nice), rather than list their reasons regarding the values. For each value, participants were given 2 min to rate their feelings. Prior to rating their feelings about each value, participants completed a 6-min filler task, which was presented as a measure of cognitive processing. This task involved highlighting the adjectives in an irrelevant reading passage. As in the reasons salient condition, the experimenter presented the second value and then stated that she had run out of sheets for the third value, and, consequently, she had to go and see her supervisor. At this point, she encountered the confederate.

Dependent Measures

Helpful behavior. A male confederate greeted the female experimenter as she was exiting the lab to ostensibly retrieve her third question sheet. Within earshot of the participant, the confederate introduced himself and stated that he was conducting a research project that required additional participants. He asked whether he could approach the participant in the lab before the participant left. The experimenter stated that, although her study was not yet over, she had interrupted her study so that she could see her supervisor. She asked whether 2 min would be sufficient for the confederate, who said it would. Because the door to the lab was left open during this conversation, the participant easily overheard the whole dialogue.

The confederate then entered the lab and told the participant that he was conducting an experiment that required more participants than he could obtain using the research credit system. He stated that participants could participate on any day and time that is convenient for them and that they could choose to participate for 10 min, 30 min, 1 h, or 2 h. He then asked participants whether they could volunteer, and he recorded the amount of time that they offered.

Attitudes toward helpful behavior. After recording participants’ response to the dependent measure, the confederate asked participants to complete a brief attitude survey while waiting for the experimenter. This attitude survey listed 17 different behaviors (e.g., meditation and recycling), including five behaviors that were helpful in nature (e.g., donating money to children’s charities and helping a friend with homework). Participants were asked to rate their attitudes toward each behavior using a 7-point scale from −3 (very unfavorable) to +3 (very favorable). Their re-
sponses to the five helpful behaviors were averaged to form an index of their attitudes toward the behaviors. Unfortunately, however, the attitude scale exhibited weak internal consistency (α = .55), so the results obtained using this measure should be interpreted cautiously.

Results and Discussion

For each of the dependent variables, preliminary analyses revealed no main effects or interactions involving sex of participant. Consequently, sex was not included as a factor in the reported analyses.

Manipulation Checks

Reasons for and against helpfulness. Using the same coding procedure as in Experiment 1, we content analyzed the reasons that were listed by participants in the reasons salient condition. Two raters independently coded each participant’s statements as (a) reasons supporting helpfulness, (b) reasons opposing helpfulness, or (c) nonreasons. The raters agreed on 89.67% of their codings. To provide final counts of each participant’s reasons for agreement and disagreement, the raters discussed any discrepancies, and final counts were decided by consensus. Results indicated that participants listed significantly more reasons supporting helpfulness (M = 2.80) than against helpfulness (M = .87), t(29) = 6.82, p < .001. Thus, as in Experiment 1, the majority of reasons supported the value.

Feelings about helpfulness. As expected, participants in the value salient condition indicated strong positive feelings toward the value of helpfulness (M = 2.18). In fact, no participant rated the value negatively on any of the scales.

Effect of Reasons Salience on Helpful Behavior

We conducted an independent samples t test to assess whether the experimental manipulation affected the amount of time that participants volunteered for additional research. As expected, participants in the reasons salient condition offered significantly more time (M = 50.00) than did participants in the value salient condition (M = 19.29), t(56) = 5.51, p < .001. The size of this effect is noteworthy: the difference in time offered was more than 30 min, and the statistic for this difference was very large, d = 1.34 (see Cohen, 1988).

Effects of Reasons Salience on Attitudes toward Helpful Behavior

As expected, an independent samples t test indicated that participants who analyzed their reasons for the value of helpfulness did not form more favorable attitudes toward helpful behaviors (M = 1.74; SD = 0.46) than did participants who indicated their feelings toward the value (M = 1.84; SD = 0.59), t(55) = 0.69, ns.

Supplementary Analyses: Feelings, Reasons, and Helpful Behavior

As in Experiment 1, we tested our assumption that making salient reasons for a value increases subsequent prov-value behavior by making the values more concrete and rational to participants. If this mechanism is valid, then participants should exhibit more helpful behavior when many clear reasons and concrete instantiations of helpfulness are salient to them than when a low number of clear reasons and concrete instantiations are salient to them. To test this hypothesis, we first summed the number of clear reasons and concrete examples (e.g., donating to streetpeople) that each participant listed for the value of helpfulness. To examine the reliability of this index, a second rater independently coded a subset of 20 participants’ reasons. The second rater’s index of concrete cognitions was significantly correlated with the first rater’s index of concrete cognitions, r(18) = .86, p < .05. As expected, participants who possessed high scores on this index offered significantly more time, r(28) = .31, p (one-tailed) < .05, than did participants who possessed low scores on the index.3

Finally, participants’ helpful behavior did not correlate significantly with either the net favorability of their reasons for the value, r(28) = −.01, ns, or the net favorability of their feelings toward the value, r(26) = .01, ns. These results should be interpreted cautiously because of the highly skewed distribution of the reasons and feelings (i.e., most were very positive).

Summary

Experiment 2 replicated and extended the findings from Experiment 1 using a different value, a different measure of behavior, and a new experimental manipulation. Specifically, making salient participants’ (positive) reasons for valuing helpfulness caused more subsequent helpful behavior than did making salient their (positive) feelings about the value. Moreover, this effect did not occur because participants developed differentially favorable attitudes toward helpful behaviors. Instead, the effect seemed dependent on

3 In both Experiment 1 and Experiment 2, we also separately examined the correlations between the target behavior (e.g., in-group favoritism) and (a) the number of concrete reasons alone and (b) the number of concrete instantiations. Results indicated a significant negative correlation between the number of concrete reasons and in-group favoritism in Experiment 1, r(49) = −.32, p < .05. The remaining correlations were not significant, suggesting that the concrete reasons and exemplars in combination are more powerful predictors of value-relevant behavior than they are individually. Indeed, we expect that their roles are complementary: concrete reasons provide argumentative direction, whereas exemplars provide further contextual grounding.
the extent to which the manipulation made participants aware of many clear reasons and concrete instantiations of the value of helpfulness. In other words, as expected, the salience of cognitive support predicted the increase in helpful behavior. Thus, the reasons again possessed unique motivational significance.

GENERAL DISCUSSION

In both experiments, we created situations where there was justification for behaving in a manner that was discrepant from cherished values. Previous research has revealed that such situations often elicit value-discrepant behavior. We wished to test whether increasing the salience of reasons supporting a value augments provalue behavior in these situations.

Both experiments used direct measures of behavior to examine this issue. The results of Experiment 1 showed that making salient reasons for the value of equality caused participants to exhibit increased egalitarian behavior in a situation where there was incentive to discriminate. Similarly, the results of Experiment 2 indicated that making salient reasons for the value of helpfulness caused participants to exhibit increased helpful behavior in a situation where there was justification for being unhelpful. Thus, Experiment 2 provides an important conceptual replication of Experiment 1. Overall, by demonstrating this behavioral effect of reasons, the present research identifies an important implication of the values-as-truisms hypothesis (Maio & Olson, 1998). Because people typically do not possess strong cognitive support for their values, they may fail to access reasons for their values spontaneously when the values are challenged, which will reduce the impact of the values on behavior.

Importantly, we also obtained support for our prediction that providing cognitive support for values increases provalue behavior over and above existing affective support for values. That is, the reasons salience manipulation increased provalue behavior more than did making salient the value and/or its affective component. This result is consistent with previous findings that, in general, the effects of unconscious affect on behavior can be enhanced by higher level cognitive systems (see Bargh & Barndollar, 1996). Further, this result has practical implications. For example, our findings are relevant to a recent antiracism program in British schools: Schools against Racism. This program attempts to increase children’s empathy for minority groups and, consequently, their affective support for the value of equality. Our findings suggest that a self-guided analysis of reasons for this value might have an additional effect over and above that of making salient provalue feelings. Ongoing research has begun to explore this possibility.

Our predictions were based on the logic that provalue reasons should countervail situational incentives for ignoring the value. But how, exactly, do reasons overcome situational forces? Interestingly, by asking participants to list reasons for and against their values, our reasons salience task elicited a relatively deliberative mindset, which is generally nonconducive to the execution of behavior (Gollwitzer, 1990). Thus, from the mindset perspective, our results would be counterintuitive.

One possibility is that reasons function by forming connections in memory between the value and various value-relevant situations. For example, while contemplating reasons for the value of equality, a person might imagine that the value of equality is important in the workplace because it gives everyone an equal opportunity to succeed. Consequently, the value is more likely to be activated as a guide for the person’s judgements and actions in subsequently encountered workplace events. This mechanism is consistent with research indicating that personal goals have a greater effect on behavior when people explicitly consider how to promote their goals in specific situations than when the goals are not linked to specific situations (e.g., Gollwitzer & Brandstätter, 1997).

We suspect, however, that this mechanism does not account for the findings of our experiments, because it requires that our measures of provalue behavior resembled the situations that participants imagined while contemplating their reasons. Such situational similarity seems particularly unlikely in Experiment 2, where we measured participants’ reaction to a request to participate in psychological research. Supplementary analyses indicated that none of the participants mentioned the relevance of helpfulness to the donation of time for research. Also, in Experiment 1, participants’ reasons pertained to groups (e.g., African Americans and women) and situations (e.g., affirmative action) that were not involved in the focal dependent measure, which was the minimal group paradigm. Even when our supplementary analyses counted an abstract reason that was indirectly relevant to the minimal group paradigm (i.e., equality offers a level playing field), the presence or absence of this reason did not significantly predict egalitarian behavior. Thus, we obtained no evidence that the effect of reasons salience on subsequent provalue behavior depends on the extent to which people contemplate reasons that match the context of the behavior.

We believe that generating reasons for a value motivates provalue behavior because individuals become convinced that the value is “rational” and not just ideological. That is, generating reasons for a value provides concrete examples of why behaving consistently with the value is sensible and justified. Thus, when situational forces work against provalue behavior, people become able to retrieve concrete information in addition to their vague feelings about the value. In this manner, the (new) concrete information helps to make the value a more compelling guide for behavior. Importantly, our supplementary analyses were consistent...
with this reasoning. In both experiments, participants who provided many concrete reasons and instantiations of the target value were significantly more likely to perform the provalue behavior than were participants who provided fewer concrete reasons and instantiations. Thus, the amount of provalue behavior was directly related to the extent to which the target value became more concrete and rational.

Note that a value may become personally compelling even when people consider reasons that are weak from an objective point of view, as is the case for many of the value-supporting reasons that participants produced in this research (see also Maio & Olson, 1998). In fact, classic research has shown that people exhibit higher agreement to requests when they are accompanied by a reason than when no reason is given, even when the reason is nonsensical (Langer, Blank, & Chanowitz, 1978). That is, reasons possess de facto motivational power. Moreover, self-perception processes (Bem, 1972; Olson, 1990, 1992) may cause self-generated reasons to be especially convincing (see also Janis, 1968), thereby conferring strong motivational impact to the self-generated reasons that were made salient in our experiments. Overall, then, reasons may have a unique psychological impact that has not been fully recognized by social psychologists.

In future research, it would be interesting to examine the effects of different techniques for making reasons salient. In the present experiments, we expected that the self-guided contemplation of reasons for the values would make reasons salient, at least temporarily. Consequently, the values were rendered only temporarily “nontrusting” and concrete. Presumably, however, the reasons can be made salient through either short-term priming of reasons (as in our experiments) or long-term association with the values (which does not normally exist). The associations that are formed through short-term priming may decay over time, resulting in values that become less concrete over time. In contrast, interventions that are more time consuming and involving may help to create associations that would render values stronger and more concrete over a longer period. We suspect that such long-term associations may be elicited in several effective programs of criminal rehabilitation, which include interview sessions that prompt reflection about values (e.g., Raynor, Sutton, & Vanstone, 1995; Ross, Fabiano, & Ewles, 1988). Thus, it is important to examine the possible utility of relatively intensive interventions.

Also, it would be interesting to further examine our proposition that reasons have an impact particularly in situations that motivate people to access and utilize their reasons. The findings in Experiment 2 supported this reasoning by showing that reasons salience increased helpful behavior in a situation that provided incentive to be unhelpful, but reasons salience did not influence simple attitudes toward helpful behaviors. We assumed that indicating attitudes toward the helpful behaviors did not require the contemplation of reasons. Importantly, however, there may have been some implied time pressure during the measurement of attitudes because participants were given the impression that the main experimenter would soon interrupt the confederate, who administered this measure. This time pressure could have reduced participants’ ability to contemplate their reasons. Moreover, attitude measures can be made more involving (e.g., by increasing personal relevance), which can motivate more deliberative processing of attitude-relevant cognitions (Fazio, 1990; Sanbonmatsu & Fazio, 1990). Thus, future research should test whether reasons salience can influence highly involving attitudes in conditions without implied time constraints.

In summary, our findings illustrate how understanding the cognitive underpinnings of values is important for understanding provalue behavior. As Martin Luther King, Jr. indirectly foreshadowed, there may be ramifications when values, such as equality, are considered to be self-evident. Given the importance of values in social psychological theory and in real-world issues, these ramifications merit empirical study.

REFERENCES


