

# Personal Values and Conflicting Motivational Forces in the Context of Imposed Change

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**ABSTRACT** Internal motivational conflicts that arise in the context of imposed change were investigated through a personal values perspective. It is suggested that in the context of imposed change different aspects of the same value dimension will tend to come in conflict. As demonstrated in two studies, this conflict is manifested in what at a surface level appears as a weak relationship between values and reaction to the change. In Study 1, a field study of 107 employees, individuals' dispositional resistance to change was controlled to disentangle the conflicting forces that employees experienced in response to a campus relocation. In Study 2, a laboratory study of 128 undergraduates, in addition to replicating the results of Study 1, the different motivational dynamics that exist in voluntary versus imposed change situations were demonstrated.

Change is inherent in everyday life and arouses a variety of responses among individuals. Indeed, numerous studies have been dedicated to understanding individuals' responses to change situations, such as retirement (Wang, 2007), the transition to college (Aspinwall & Taylor, 1992), relocations (Martin, 1996), organizational changes

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(Armenakis & Bedeian, 1999), and consumers' switching behavior (Zauberman, 2003). Although these studies may vary considerably in the type of change being investigated, they all aim at understanding how individuals react to change and explaining why they react as they do. Seldom, however, have studies explored the different motivations that may underlie different types of change.

Some changes, such as changing one's career, moving to a new neighborhood, or buying a new car, are typically voluntary. These changes combine an opportunity for renewal and novelty along with opportunities for the expression of one's personal taste and autonomy. Contrarily, other changes are imposed, such as when a given product line is discontinued or when certain changes in the workplace are imposed by management. When change is imposed, the opportunity for novelty is combined with a restriction, rather than promotion, of one's personal autonomy and right of expression. Rather than autonomy, these changes encourage and provide the opportunity for the expression of conformity and commitment to the change agent.

In the present paper we employ Schwartz's (1992) theory of personal values to explain individuals' reactions to imposed versus voluntary changes. We argue that in voluntary change there is a clear relationship between values and support for change. Contrarily, imposed change constitutes a unique setting in which individuals are prone to experience an internal value conflict, resulting in a more complex relationship between values and reactions to change. To demonstrate the existence and nature of this internal conflict we conducted two studies: a field study aimed at teasing out the conflicting motivational forces that arise in the context of imposed change (Study 1) and a laboratory experiment, in which we examine individuals' reactions to imposed change vis-à-vis their reactions to voluntary change (Study 2). We begin by reviewing Schwartz's (1992) theory of personal values, on which we base our formulations.

### **Schwartz's Theory of Personal Values**

Values are often defined as cognitive representations of motivational goals, which serve as guiding principles in people's lives (Schwartz, 1992). They represent broad goals that influence the most basic ways in which people perceive their environments (Fischer & Smith, 2004; Schwartz, Sagiv, & Boehnke, 2000) and that ultimately shape

individuals' behaviors across contexts and over time (Rokeach, 1973; Schwartz, 1992).

Contrary to norms, attitudes, or specific goals, values transcend specific actions and situations (Roccas, Sagiv, Schwartz, & Knafo, 2002; Schwartz, 1992). Values are also distinct from traits or personal interests in that they serve as standards or criteria and provide social justification for choices and behaviors (Roccas et al., 2002). Individuals are motivated to behave in accordance with their values in order to avoid the unpleasant sensation that accompanies value-behavior incongruence (Hitlin & Piliavin, 2004). Furthermore, contrary to traits, values are subjectively rank-ordered, and their combination forms a system of value priorities, or hierarchies (Rokeach, 1973; Schwartz, 1992). Because most values tend to be socially desirable, it is their relative standing within the individual that is presumed to ultimately guide behavior (Schwartz, 1992, 1996; Tetlock, 1986). Given that they provide a motivational account of individuals' actions, they are particularly suitable when trying to describe and explain individuals' responses.

Schwartz's (1992) research identified 10 distinct motivational goals that can each be categorized into one of four broad value dimensions. These values are organized on a motivational continuum and form a circular structure that represents the dynamic relationships among them. Actions in pursuit of any such value have psychological, practical, and social consequences that may either conflict or be congruent with the pursuit of other values (Schwartz, 1992). The total pattern of relations among values can be summarized with two basic contrasts.

The first contrast involves *self-enhancement* and *self-transcendence* values and describes the tension between individuals' emphasis on the pursuit of one's own relative success and dominance versus an emphasis on the welfare of others. The second contrast is of central relevance to the present work. It is the contrast between *openness to change values* and *conservation values*. Openness values represent an emphasis on the proactive search for stimulation, novelty, and change as well as an emphasis on free and autonomous thinking and behavior. They encompass the narrower values of stimulation and self-direction. Through research with numerous samples, Schwartz found that an individual's standing on one of these motivational orientations (e.g., novelty) closely corresponds with his or her standing on the other (e.g., autonomy; Schwartz, 1992, 2005;

Schwartz & Sagiv, 1995). Accordingly, the behavioral inclinations that are elicited from valuing novelty tend to correspond closely with those that derive from valuing autonomy (Schwartz, 1996). For example, valuing the unconventional, thinking creatively, and taking on new activities would all appear to reflect both an emphasis on novelty and on autonomy.

Conservation values, on the other hand, prescribe the status quo, the avoidance of threat, the preservation of security and social order, and submissive self-restriction. They encompass the narrower values of security, conformity, and tradition. Stability- and compliance-seeking motivations are both defining characteristics of the conservation dimension (Schwartz, 1992, 2005). For example, an emphasis on both stability and compliance would appear to underlie conservative views of upholding existing trends (e.g., voting for conservative political parties; see Schwartz, 1996), and both entail one's support of the social order.

The set of values and the particular pattern of relationships among them have been tested and verified in more than 200 samples from more than 70 cultural groups (e.g., Schwartz, 1992; Schwartz & Sagiv, 1995). Furthermore, the theory has been used to explain relationship patterns between value priorities and a variety of attitudes, beliefs, and behaviors, such as environmental behavior (e.g., Bianchi & Rosova, 1992; Grunert & Juhl, 1995), responses to career counseling (Sagiv & Schwartz, 2004), and day-to-day behaviors across a variety of domains (e.g., Bardi & Schwartz, 2003). Consistent with Schwartz's (1992) theory, similar values tend to exhibit similar relationships with external variables, and opposing values tend to exhibit inverse relationships with external variables (Schwartz, 1996). As we explain in the following section, imposed change presents a unique context in which similar values may actually conflict with one another and yield inverse relationships with individuals' responses.

### **Imposed Change and Conflicting Motivational Forces**

On the face of it, even from the names of the value dimensions, one would expect openness to change to elicit positive reactions to change and conservation to elicit negative reactions. However, the openness–conservation contrast relates to imposed change in at least two respects. Indeed, because change, by definition, constitutes a

break from the status quo and involves the introduction of new processes, structures, or ideas, openness values should be associated with support for change and conservation values should be associated with lack of support or even resistance. That said, when changes are imposed, they threaten one's sense of autonomy and may therefore elicit the opposite relationships between values and reactions to change. Individuals who emphasize openness will tend to resist the imposition on their personal freedom and autonomy, whereas those who emphasize conservation will tend to cooperate and to comply with the imposed decrees. Thus, individuals who emphasize openness to change are predisposed to support imposed change because it presents opportunities for renewal, but at the same time are predisposed to resist it because it threatens their sense of autonomy. Conversely, those who emphasize conservation are predisposed to resist imposed change because it threatens their sense of security, but are also predisposed to support it because of their need to maintain order and to cooperate with authority.<sup>1</sup>

Empirical evidence exists for both directions of relationships between values and individuals' reactions to change. A number of studies, focusing on self-initiated and voluntary changes indicate a positive relationship between openness and the endorsement of change. For example, individuals who value openness have been found more likely and individuals who value conservation less likely to adopt new technologies such as cellular phones (Schwartz, 1998) and the Internet (Rabin, 2006). Similarly, those who value openness are more likely to exhibit an innovative cognitive style (Kirton, 1980),

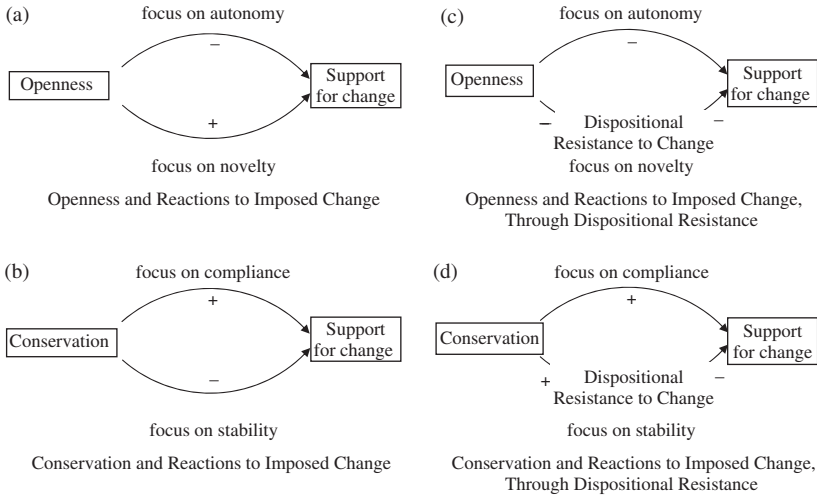
1. As noted, the openness and conservation dimensions comprise narrower and more specific values. Some narrow values may emphasize aspects relating more to the novelty/stability motivation and others emphasizing aspects of autonomy/compliance. Nevertheless, because these two motivational forces lie at the very core of the openness and conservation dimensions, each of the underlying narrow values should still include aspects of both motivations. For example, self-direction, which underlies the openness dimension, clearly involves both issues relating to autonomy (including measurement items such as "freedom" and "independence") and novelty (e.g., "curiosity"). As for stimulation, although stimulation values most explicitly address aspects of novelty (e.g., "an exciting life," "a varied life"), by tapping values such as "daring," stimulation also touches on aspects of autonomy similarly although security values involve aspects of stability ("reciprocation of favors"), they still very much tap aspects of compliance as well ("social order"). To be sure, when running analyses using specific values instead of broad value dimensions we obtained results that are equivalent to those presented later.

by which they tend to break away from existing paradigms (Kwang et al., 2005). Correspondingly, those who value conservation are more likely to exhibit an adaptive cognitive style by which individuals seek solutions within existing paradigms (Kwang et al., 2005). These studies imply that openness is positively related and conservation negatively related to individuals' willingness to support changes.

Other works on individuals' responses to authority and institutions imply that when cooperation and compliance are required, values may have the opposite impact on individuals' reactions to change. First, openness values have been found to be negatively associated with trust in institutions (Devos, Spini, & Schwartz, 2002) and with affective organizational commitment (Glazer, Daniel, & Short, 2004). Correspondingly, conservation was found to correlate positively with trust in institutions (Devos et al., 2002) and authoritarianism (Cohrs, Moschner, Maes, & Kielmann, 2005). In turn, other studies have shown that trust in management and organizational commitment are associated with positive reactions to change (e.g., Oreg, 2006). These findings combined imply that openness would be negatively associated and conservation positively associated with support for authority and its initiatives, such as imposed changes. Research of individuals in the context of career counseling suggests similar patterns of relationships. Values underlying the openness dimension (i.e., self-direction) are associated with a proactive and independent style, whereas values underlying the conservation dimension (i.e., conformity and tradition) are associated with a passive and accepting style (Sagiv & Schwartz, 2004).

Thus, in the context of imposed changes, both those who value openness and those who value conservation have reasons to support as well as to resist change. The proposed patterns of relationships are presented in Figure 1a,b. Previous literature has discussed the notion that whenever contrasting forces of similar importance act within the individual, an internal tension will arise (Lewin, 1935; Miller, 1951). A similar portrayal is made in models of value conflicts and ideological reasoning that address the conditions under which trade-offs between specific motives result in the experience of an internal conflict (Feather, 2002; Tetlock, Peterson, & Lerner, 1996).

Some studies have used implicit tests in which an internal conflict (i.e., ambivalence) is inferred from individuals' neutral evaluations of attitude-relevant information (Petty, Tormala, Brinol, & Jarvis, 2006). These neutral evaluations are believed to conceal a combina-



**Figure 1**  
**A schematic portrayal of ambivalence towards change.**

tion of positive and negative attitudes. In a similar vein, we suggest that individuals’ surface-level reactions to imposed change conceal an underlying conflict between two motivational forces. We use two approaches for demonstrating the conflict. In Study 1 we separate statistically the two conflicting forces that underlie the manifest relationship between individuals’ standing on a value dimension (either openness or conservation) and their support for an imposed change. In Study 2 we test our premise that the weak surface-level relationship between values and intentions results from the imposed nature of the change situation. We do this by comparing reactions to imposed versus voluntary changes.

**STUDY 1**

To demonstrate the existence of conflict, we wish to surface the two contrasting motivational forces indicated by our theoretical formulations. As noted above, we suggest that imposed change activates individuals’ orientations toward both novelty versus stability and autonomy versus compliance. For both those who emphasize openness and those who emphasize conservation, these two forces will conflict with one another. Yet we do not suggest that the forces are necessarily of equal strength. It is quite possible that, in a given change

situation, the motivation toward either novelty (stability) or autonomy (compliance) would have a greater impact on individuals' reactions. Nevertheless, assuming that the two underlying forces exist, an examination of the relationship between values and support for the change, while statistically controlling for one of the forces, should reveal the existence of the other force. We therefore sought an individual-differences construct that would tap only one of the two forces.

Dispositional resistance to change (Oreg, 2003) appears to tap novelty/stability but not autonomy/compliance. The disposition is defined as the dispositional inclination of an individual to avoid or resist changes. The particular focus of the disposition is on those aspects within the individual that relate to the amount of stability and routine in a given setting. By definition, those who are high on resistance enjoy routines and experience stress when these are broken. On the other hand, those who are low on resistance enjoy surprises and actively seek out new opportunities and experiences. Previous work has established that dispositional resistance is moderately correlated with values, having positive correlations with conservation and negative correlations with openness (Oreg et al., 2008). As we explain below, the overlap between dispositional resistance and values concerns the novelty/stability dimension but not the autonomy/compliance dimension.

Dispositional resistance to change has been shown to predict individuals' reactions to change in several contexts (Oreg, 2003). Those who are high on the disposition have been shown to resist both voluntary and imposed changes (e.g., Campbell, 2006; Oreg, 2006). The disposition has been shown to correlate with a variety of traits that are related to people's orientations toward novelty and stability. For example, it correlates negatively with openness to experience (Digman, 1990), sensation seeking (Zuckerman & Link, 1968), and tolerance for ambiguity (Budner, 1962). Yet, in line with its specific focus on the orientation toward change, the disposition has been shown to have incremental validity over other such traits in predicting individuals' reactions to specific changes (Oreg, 2003).

Contrarily, an examination of the disposition's defining characteristics and measurement items indicates that it is only tangentially related to people's orientation toward autonomy and compliance. Both the conceptual definition of the construct as well as the items that measure it focus on the notion of stability versus change, independent of the extent to which a change is voluntary or imposed. Sample items are "I'd take a routine day over a day full of surprises



anytime,” “I’d rather be bored than surprised,” and “When things don’t go according to plans, it stresses me out.” Thus, when considering the two forces that surface in the context of imposed change, dispositional resistance to change seems to represent primarily one of them, namely, the novelty/stability force that motivates those who emphasize openness to support change and motivates those who emphasize conservation to resist it.

After teasing out the impact of dispositional resistance (i.e., the novelty/stability force; see Figures 1c and 1d), the relationship between openness and support for the change should become more negative, and the relationship between conservation and support for the change should become more positive. In statistical terms, what we are suggesting is a suppression effect, whereby controlling for the suppressor yields a stronger relationship between the predictor and criterion compared with the noncontrolled relationships (Conger, 1974; MacKinnon, Krull, & Lockwood, 2000). The procedures for testing for suppression are the same as those used for testing mediation, yet contrary to the case of mediation, in suppression the effect of the predictor *increases*, rather than decreases, once the suppressor is included in the analysis (Shrout & Bolger, 2002; we elaborate on these procedures in the Results section). We thus make the following hypotheses:

*Hypothesis 1:* The relationship between openness values and support for the imposed change will be stronger (and negative) when controlling for dispositional resistance in comparison with the noncontrolled effect (i.e., zero-order correlation).

*Hypothesis 2:* The relationship between conservation values and support for the imposed change will be stronger (and positive) when controlling for dispositional resistance in comparison with the noncontrolled effect (i.e., zero-order correlation).

## Method

### *The Study’s Context*

The change we investigated in this study involved the relocation of a university’s campus in Israel. The new campus was designed to include all administrative and academic departments in one location. Whereas the main part of the old campus was located in a central city in Israel, the new campus was to be located in a more peripheral town, about 30 minutes

from the old site. Overall, the organizational change held promise for a number of potential improvements (e.g., a new and well-designed campus) as well as a number of threats, such as more commuting time to and from work. Data were collected a number of months before the relocation had taken place, yet well after the change was first announced. Messages conveyed in conversations we had with employees as well as reactions expressed in a number of meetings held before the implementation of the change suggested that employees were well aware of its taking place and very few appeared indifferent to it.

### *Participants and Procedure*

Campus employees (approximately 500) were contacted via e-mail and asked to participate in the study on a voluntary basis. A total of 117 questionnaires were returned; of them 107 included data on all variables. Sixty-seven percent of respondents were female (68% are female in the university population), the mean age was 40.23 years ( $SD = 10.6$ ; 45.5 years is the mean age university-wide), and 76% were full-time employees (63% university-wide). University staff comprises both administrative and academic personnel. In the present sample, 44% of the employees were members of the academic staff (45% university-wide). As indicated by the values in parentheses above, the distribution of demographic variables in our sample closely matched university records, which somewhat alleviates concern of a sampling bias.

### *Measures*

*Personal values* were measured with the 46-item version of Schwartz's Value Survey (SVS; Schwartz, 1992). Respondents were asked to rate the importance they attributed to value items as "guiding principles" in their life. The SVS has been used in numerous studies and has successfully replicated the conceptualized value structure (Schwartz, 2005). Although for the present study we were interested only in the items that represent openness to change and conservation, it is necessary to measure the entire value spectrum because it is the standing of an individual on a value in the context of all other values that indicates one's value orientation. In addition, Schwartz (1992) suggests controlling for individual differences in scale use by subtracting the mean score of the entire values scale from specific value dimensions.

Conservation and openness were measured with 22 items from the SVS. According to Schwartz's (1992) prescriptions, 8 items (e.g., freedom, creativity) tapped openness to change values and 14 items (e.g., social order, obedience, family security) tapped conservation values. Response

categories in Schwartz' scale are placed on a 9-point Likert scale, ranging from  $-1$  (*opposite to my values*), through 0 (*not important*) to 7 (*of supreme importance*). The asymmetry of the scale reflects the natural distribution of distinctions that individuals make when thinking about the importance of values, observed in pretests when building the scale (Schwartz, 1992). Because most values are typically seen as desirable, responses to value items generally range from *somewhat important* to *very important*. Reliability coefficients alpha for openness and conservation in the present study were .77 and .84, respectively.

*Dispositional resistance to change* was measured with Oreg's (2003) 17-item RTC scale. The scale includes statements about people's overall orientation toward routines and change (see sample items above, in the introduction). Contrary to the construct's main focus and the typical wording of its items, 1 of the scale's 17 items ("When someone pressures me to change something, I tend to resist it even if I think the change may ultimately benefit me") appears to tap both the novelty/stability *and* the autonomy/compliance motivation. It was therefore excluded from our analyses. The scale uses a 6-point Likert scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). It has been used in a variety of contexts and has consistently demonstrated high structural stability and reliability (Oreg, 2003, Studies 2–7; Oreg et al., 2008). The scale's reliability and validity have been established in studies with more than 20 samples (Oreg, 2003; Oreg et al., 2008; Oreg, Nevo, Metzer, Leder, & Castro, 2009). Its validity has been established both by demonstrating moderate correlations with related yet distinct constructs (e.g., sensation seeking, risk aversion) and by showing significant relationships between individuals' RTC score and their reactions in specific change contexts, both voluntary and imposed. The scale's alpha reliability coefficient in the present study was .88.

*Support for the organizational change* was measured using three items adapted from Oreg's (2006) Change Attitudes Scale, which taps employees' support or resistance to a given organizational change. Items were: "I want to do something to express my support for the relocation initiative", "I talk a lot with others about the advantages of the relocation initiative", and "I tend to avoid visiting the new campus" (reverse-coded). Respondents rated the extent to which they agreed with each of the items on a 6-point scale ranging from 1 ("strongly disagree") to 6 ("strongly agree"). The scale's reliability coefficient in the present study was .68, which although slightly below the accepted .7 threshold, is not atypical for scales with so few items.

## Results and Discussion

Means, standard deviations, and correlations among study variables are presented in Table 1. As can be seen, in line with previous

**Table 1**  
Descriptive Statistics and Correlations for the Variables in Study 1  
( $N = 107$ )

Variable	Mean	SD	1	2	3	4
1. Openness <sup>a</sup>	0.33	0.64				
2. Conservation <sup>a</sup>	-0.31	0.58	-.62**			
3. Dispositional resistance (RTC)	2.92	0.67	-.39**	.21*		
4. Support for the organizational change	4.10	1.16	-.14	.27**	-.25*	

<sup>a</sup>As indicated in the Method section, value scores were ipsatized, in line with Schwartz (1992).

\* $p < .05$ . \*\* $p < .01$ .

findings, the relationship between dispositional resistance and support for the change was significant and negative. Additionally, in line with Schwartz's theory, conservation values correlated negatively with openness to change values.

In Hypotheses 1 and 2 we propose a suppression effect of dispositional resistance. The procedures for testing for suppression are equivalent to those used for testing mediation, despite their distinct conceptual meanings (MacKinnon et al., 2000; Shrout & Bolger, 2002). The primary steps for testing mediation and suppression effects (Baron & Kenny, 1986; MacKinnon, Fairchild, & Fritz, 2007) consist of demonstrating a relationship between the predictor and mediator (or suppressor), demonstrating a relationship between the mediator (or suppressor) and criterion while controlling for the predictor, and comparing the predictor's effect on the criterion before and after including the mediator (or suppressor). However, whereas in mediation the inclusion of the mediator leads to a decrease in the effect of the predictor on the criterion, in suppression the opposite occurs, with the effect of the predictor *increasing* once the suppressor is included (e.g., MacKinnon et al., 2007; Shrout & Bolger, 2002).

As can be seen in Table 1, values (i.e., the predictors) are significantly related to dispositional resistance (i.e., the suppressor). Openness is negatively related and conservation positively related to dispositional resistance. In Tables 2 and 3, the relationship between dispositional resistance and support for change while controlling for values is significant (the bottom row of Tables 2 and 3). Further-

**Table 2**  
 Summary of Regression Analysis for Openness and RTC Predicting Support for the Organizational Change in Study 1 (*N* = 107)

Variable	B	Std. Err.	$\beta$
Step 1			
Openness	-.26	.18	-.14
Step 2			
Openness	-.52	.19	-.29**
RTC	-.63	.18	-.36**

\*\**p* < .001.

more, in Tables 2 and 3 values and support for change (i.e., the criterion) become stronger after controlling for dispositional resistance. For openness values, the relationship between openness and support for change becomes significant only when including dispositional resistance in the regression analysis. For conservation, although even the bivariate relationship between conservation and support for change is significant, the relationship between the two variables becomes stronger (more positive) after controlling for dispositional resistance. Thus, the results support our hypotheses.

At this point we wanted to verify that the difference between the controlled and noncontrolled effects is statistically significant. Such a test is equivalent to testing the significance of the indirect effect in a mediation design (see MacKinnon et al., 2000). Until recently, the most common approach to test this was the Sobel test (Sobel, 1982).

**Table 3**  
 Summary of Regression Analysis for Conservation and RTC Predicting Support for the Organizational Change in Study 1 (*N* = 107)

Variable	B	Std. Err.	$\beta$
Step 1			
Conservation	.53	.19	.27**
Step 2			
Conservation	.67	.18	.34**
RTC	-.55	.16	-.32**

\*\**p* < .001.

However, the Sobel test was designed with large samples in mind. When samples are small, whereby normality of effect distributions cannot be assumed, it is recommended to use bootstrapping techniques (e.g., Shrout & Bolger, 2002). In the present study we used the bootstrapping sampling tests in the AMOS program (Arbuckle, 2006). When testing the indirect effect of openness values on support for change (via dispositional resistance) the 95% confidence interval of the effect was (.48, .13). The confidence interval for the indirect effect of conservation values was (−.11, −.48). Neither interval includes 0, which indicates the significance of the indirect effects ( $p < .05$ ).

This suggests that when considering the novelty/stability aspect within values (as reflected in dispositional resistance), the relationship between openness and support for the change is positive and the relationship between conservation and support is negative. Conversely, when dispositional resistance to change (i.e., the novelty/stability factor) was controlled for (leaving only the autonomy/compliance effect to remain), openness was negatively related and conservation positively related to employees' support of the change. Thus, our findings are consistent with the notion that openness and conservation each encompass two sets of opposing forces that differentially influence employees' reactions to imposed change.

A main premise in our formulations is that it is the imposed nature of change that creates the conflict between novelty- and autonomy-seeking motivations. We expect that when change is voluntary, novelty can be sought with no threat to one's autonomy. Therefore, a stronger demonstration of our arguments would involve a comparison of individuals' responses to imposed and voluntary changes. In essence, such a comparison allows us to control for the autonomy/compliance aspect within the openness–conservation contrast. This is our focus in Study 2.

## STUDY 2

Manipulating the extent to which a change is imposed versus voluntary provides another means of examining the motivational forces that underlie reactions to change. When change is voluntary, the internal conflict that would appear to emerge under imposed change should no longer exist. Voluntary change offers new opportunities and constitutes a break in the status quo, and at the same time does not threaten one's autonomy and does not elicit the inclination to

comply. In other words, only the novelty/stability force remains relevant. Thus, those who value openness should tend to support voluntary change, whereas those who value conservation should tend to resist it. Therefore, relationships between values and support for change should be stronger in the voluntary condition than in the imposed condition, in which the autonomy/compliance force mitigates the impact of individuals' orientations toward novelty/stability.

We make the following hypotheses:

*Hypothesis 3:* The relationship between openness values and support for the change will be significantly stronger (and positive) in the voluntary change condition than in the imposed change condition.

*Hypothesis 4:* The relationship between conservation values and support for the change will be significantly stronger (and negative) in the voluntary change condition than in the imposed change condition.

In addition we expect to replicate the findings of Study 1 and reconfirm Hypotheses 1 and 2 in the imposed change condition—where the relationship between values and support for change is expected to be stronger (negative for openness, positive for conservation) when controlling for dispositional resistance. Because no conflict between novelty/stability and autonomy/compliance is expected in the voluntary condition, the suppression effect that we hypothesize for dispositional resistance in the imposed condition was not expected in the voluntary condition.

## Method

### *Participants*

One hundred and twenty-eight undergraduate students at the Open University in Israel participated in the study in return for course credit. Eighty-nine percent were female, 10% were male, and 1% did not report their sex. The mean age was 28 years ( $SD = 6.4$ ). Subjects were randomly assigned to the voluntary- or imposed-change conditions.

### *Voluntary Versus Imposed Change Manipulation*

Participants were asked to provide feedback concerning a number of changes in the university's teaching methods as part of an allegedly independent research program conducted by the university's psychology department. The proposed changes were realistic but were not part of any actual initiative by the university's management, a fact that was revealed

to participants at the end of the experiment. The changes pertained to procedures that would have a direct impact on students. In the imposed condition, students were informed that the university had decided on changes that would take place in the following academic year. Contrarily, in the voluntary condition students were told that although the university had decided to introduce new study procedures, students would have the option of choosing whether or not they would like to implement them.

Participants were then provided with information about two changes and reported their reactions to them. We aimed for change situations involving both objective advantages and disadvantages, to elicit a range of resistance (vs. acceptance) responses.<sup>2</sup> One change involved the provision of study material in English (instead of Hebrew), with the aim of better preparing students for graduate studies (most of the reading material in graduate studies in Israel is in English). The second change involved teaching methods of advanced courses at the university. It was proposed that, to increase their flexibility in constructing their schedules and to offer greater opportunities for independent study, half of students' elective advanced courses would involve video recordings and online material on the Internet instead of formal lectures. Similar changes have been initiated in this university in the past, which increases the believability of the proposed changes.

### *Measures*

*Personal values* were measured using the Portrait Value Questionnaire (PVQ; Schwartz et al., 2001). The *openness* index contained 7 items and the *conservation* index consisted of 13 items. The PVQ has been shown to be a reliable and valid measure, equivalent to the SVS for the measurement of values (Schwartz et al., 2001). Results based on the PVQ are strongly consistent with results from studies that used the SVS (Schwartz, 2005), yet the PVQ has also been shown to be somewhat simpler to fill out and less time-consuming. The scale includes short verbal portraits of various hypothetical individuals. Each portrait describes a person's goals, aspirations, or wishes that point implicitly to the importance of a value.

2. Vignettes included a third situation, concerning the assignment of papers instead of exams, that was evidently not perceived as having disadvantages. It elicited high endorsement and limited variance. Such changes correspond to Mischel's (1977) conceptualization of a "strong" situation and leave little room for individual differences to emerge. Because our focus in this study was on individual differences in the response to change, this vignette, at least in this sample, would not allow for a test of our hypotheses. We therefore restricted our analyses to data concerning responses to the remaining two situations.



The verbal portraits describe each person in terms of what is important to him or her. For example, the item: "Thinking up new ideas and being creative is important to him. He likes to do things in his own original way" describes a person who values openness to change. Thus, scale items capture the person's values without explicitly identifying values as the topic of investigation.

For each portrait, subjects responded to the question: "How much like you is this person?" Responses lie on a Likert scale ranging from 1 (*not like me at all*) to 6 (*very much like me*). Respondents' own values are inferred from their self-reported similarity to the individuals described in the scale items. As in Study 1, value scores were corrected for respondents' base rates by subtracting individuals' mean value score from the openness and conservation scores. Cronbach's alphas in this study were .75 for openness to change and .77 for conservation.

*Dispositional resistance to change* was measured using an abbreviated version of Oreg's (2003) RTC scale. Because of limitations to survey length we selected out of the 17 scale items the 11 that had shown the highest loadings in Oreg's (2003) studies. The scale's reliability coefficient (Cronbach's alpha) in the present study was .78.

*Support for the change* was measured with four items (measured twice, once for each of the change contexts) asking directly about the intentions to adopt (or resist) each of the proposed changes. Items were: "I'll do whatever I can to support the change," "I'll do whatever I can to prevent the change (reverse-coded)," "I'll be happy to adopt the change," and "I'm likely to avoid courses that are studied through the new method" (reverse-coded; wording of this item was modified to match the context when following the second vignette). Respondents were asked to rate the extent to which they agreed or disagreed with each of the items on a 6-point Likert scale. Responses were then aggregated to create two support for change scores, one with respect to each vignette. Because individual-differences variables are most meaningful for predicting aggregate rather than specific behaviors (Epstein, 1979), we aggregated the two support for change scores to form a single index. Nevertheless, separate analyses using each of the support-for-change variables separately yielded almost identical results. The scale's reliability coefficients were .67 and .91 for the change in language and the change in teaching methods, respectively.

### *Control Variables*

Because the first change introduced in the study pertained to the introduction of English reading material and the second change involved the use of material online, fluency in English and Internet accessibility were likely to be significant correlates of respondents' orientation toward the

changes in the study. We therefore wished to control for them in our analyses. Respondents were asked to rate their level of fluency in English on a 7-point scale ranging from 1 (*very poor*) to 7 (*very fluent*) and the degree to which they have Internet access on a 5-point scale ranging from 1 (*very little*) to 5 (*very much*). In addition, because 89% of the sample in this study were women, we also controlled for sex.

### *Procedure*

Participants were invited to participate in a series of distinct and allegedly independent studies. They completed the values questionnaire followed by the resistance to change questionnaire as part of a study on individual differences. They then performed a filler task that was unrelated to the studies presented in this work. Following this, they were administered the latter part of the present study, introduced as a new study, under the title “A Study of University Teaching Methods.” Participants were provided with descriptions of the proposed changes and a questionnaire that comprised the support for change questions and a number of questions about participants’ demographics. The order of the changes presented was counterbalanced. At the end of the experiment participants were debriefed and thanked for their participation.

## Results and Discussion

Means, standard deviations, and correlations of the variables in the study, across both conditions, are presented in Table 4. As expected, openness to change values correlated significantly and negatively with conservation values.

Hypotheses 3 and 4 involve comparisons of the relationship between values and support for change across the experimental conditions. Our main argument is that the relationship between values and support for change is a function of whether the change is voluntary or imposed. In other words, values and discretion (voluntary vs. imposed) interact in their effect on support for change. We therefore followed the prescriptions of Aiken and West (1991) for testing interaction effects. The three control variables—sex, English fluency, and Internet accessibility—were included in the analyses. As Table 5 demonstrates, the Openness  $\times$  Discretion interaction effect was significant ( $\beta = -.27, p < .05$ ). To interpret the effect, we plotted the relationship between openness and support for change across the two conditions (see Figure 2) and examined the conditional regression coefficients of the simple slopes. In line with Hypothesis 3, there

**Table 4**  
 Descriptive Statistics and Correlations for Variables in Study 2  
 (N = 128)

Variable	Mean	SD	1	2	3	4	5
1. Openness <sup>a</sup>	0.41	0.62					
2. Conservation <sup>a</sup>	-0.58	0.51	-.63**				
3. Dispositional resistance (RTC)	3.12	0.62	-.43**	.45**			
4. English fluency	3.40	1.03	.19*	-.09	-.03		
5. Internet accessibility	4.54	0.83	.04	-.11	-.18*	.30**	
6. Support for the change	3.54	0.91	-.15	.08	.17*	-.20*	-.16

As indicated in Study 1, value scores were ipsatized in line with Schwartz (1992).  
 \* $p < .05$ . \*\* $p < .01$ .

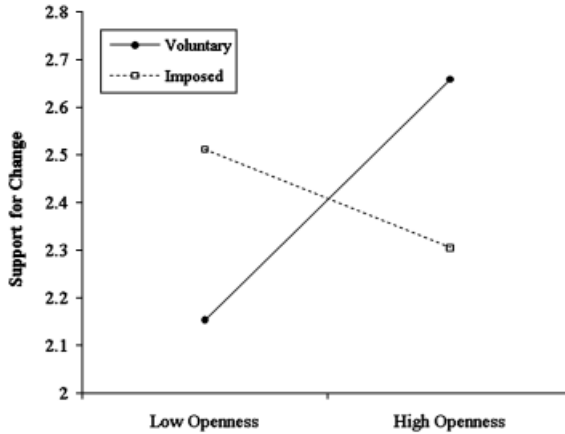
was a significant positive relationship between openness and support for change in the voluntary condition ( $\beta = .35, p < .01$ ), whereas the relationship in the imposed condition was not significant, with a negative trend ( $\beta = -.17, ns$ ).

We ran equivalent analyses for testing Hypothesis 4 (see Table 6 and Figure 3). As Table 6 shows, the Conservation  $\times$  Discretion interaction effect was significant ( $\beta = .31, p < .05$ ). In line with Hypothesis 4, the relationship between conservation and support was negative and significant in the voluntary condition ( $\beta = -.32, p < .05$ ) and was not significant in the imposed condition, with a

**Table 5**  
 Moderation Analysis for Openness and Support for Change Across  
 Experimental Conditions, Predicting Support for Change (N = 128)

Variable	B	Std. Err.	$\beta$
Sex (female = 0; male = 1)	.50	.29	.15
English fluency	.16	.08	.18
Internet accessibility	.09	.10	.08
Discretion (voluntary = 0; imposed = 1)	.00	.16	.00
Openness	.41	.17	.28*
Openness $\times$ Discretion	-.58	.26	-.27*

\* $p < .05$ .



**Figure 2**

Plot of interaction effect for openness values in Study 2.

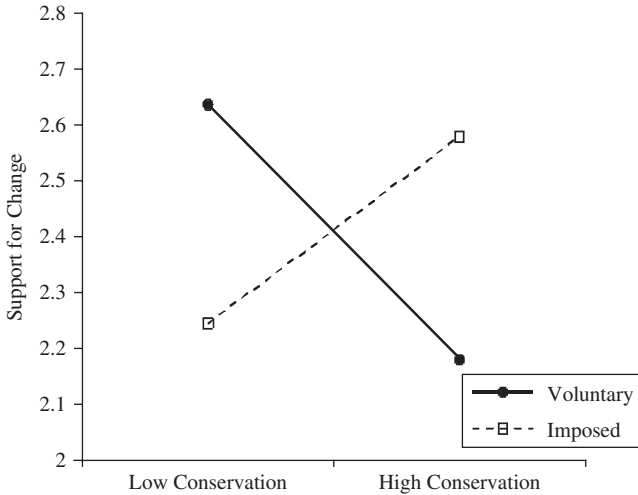
positive trend ( $\beta = .18$ , *ns*). As Tables 5 and 6 show, beyond these hypothesized interaction effects, the separate effects in these analyses for both openness and conservation (the fifth row in both tables) were also significant. These effects did not maintain their significance once the interaction term was removed from the analysis. These effects should therefore not be interpreted as *main* effects, but rather are simply the *average* effects of values (openness and conservation) on support for change across the voluntary and imposed conditions (Aiken & West, 1991; Finney, Mitchell, Cronkite, & Moos, 1984). From Figures 2 and 3 it can be seen that these significant *average*

**Table 6**

Moderation Analysis for Conservation and Support for Change Across Experimental Conditions, Predicting Support for Change ( $N = 128$ )

Variable	B	Std. Err.	$\beta$
Sex (female = 0; male = 1)	.51	.29	.15
English fluency	.15	.08	.17
Internet accessibility	.08	.10	.07
Discretion (voluntary = 0; imposed = 1)	.00	.16	.00
Conservation	-.46	.21	-.26*
Conservation $\times$ Discretion	.80	.31	.31*

\* $p < .05$ .



**Figure 3**  
 Plot of interaction effect for conservation values in Study 2.

*effects* result from the fact that effects in the voluntary condition were stronger than those in the imposed condition.

Our second goal in Study 2 was to replicate the findings of Study 1 in the imposed-change condition. As hypothesized in Study 1, the relationship between openness and support for the imposed change was expected to be stronger (and negative) when controlling for dispositional resistance in comparison with the noncontrolled effect (Hypothesis 1), and the relationship between conservation and support for the imposed change was expected to be stronger (and positive) when controlling for dispositional resistance in comparison with the noncontrolled effect. Accordingly, in this study, too, openness values in the imposed condition were significantly negatively related to support for change only after controlling for dispositional resistance (see Table 7). Correspondingly, conservation was significantly positively associated with support for change only after controlling for dispositional resistance (see Table 8).

Following the same procedure for testing suppression in Study 1, suppression of dispositional resistance was also found in the present study, both for openness and conservation values. Furthermore, 95% confidence intervals for the indirect effect of values on support for change using bootstrapping resampling techniques were (.42, .08) for openness and (-.52, -.03) for conservation, indicating a

**Table 7**  
 Regression Analysis for Openness and RTC Predicting Support for  
 Change in the Imposed Condition ( $n = 64$ )

Variable	B	Std. Err.	$\beta$
Step 1			
Sex	.46	.42	.14
English fluency	.36	.13	.37**
Internet accessibility	.05	.17	.04
Openness	-.29	.22	-.17
Step 2			
Sex	.49	.40	.15
English fluency	.37	.13	.34**
Internet accessibility	.01	.17	.00
Openness	-.51	.23	-.30*
RTC	-.50	.21	-.31*

\* $p < .05$ . \*\* $p < .01$ .

significant indirect effect in both cases. To extend our replication of Study 1, we also tested whether dispositional resistance acted as a suppressor in the voluntary condition. As expected, there was no suppression effect for dispositional resistance neither when tested with openness nor with conservation.

## GENERAL DISCUSSION

In the present studies we suggest that the relationship of openness and conservation values with reactions to change depends largely on the extent to which the change is imposed or voluntary. Moreover, we propose that imposed change is an interesting context in which conflicting forces are activated within a single value dimension. Supporting these propositions, the relationship between values and support for change increased when controlling for one of these forces (i.e., novelty/stability in Studies 1 and 2) and when manipulating the other (i.e., autonomy/compliance in Study 2). In Study 2, the relationship between values and support for change was weaker in imposed than in voluntary conditions.

Beyond their contribution to our understanding of reactions to imposed change, we believe that our findings meaningfully expand

**Table 8**  
 Regression Analysis for Conservation and RTC Predicting Support for  
 Change in the Imposed Condition ( $n = 64$ )

Variable	B	Std. Err.	$\beta$
Step 1			
Sex	.49	.42	.15
English fluency	.31	.12	.33**
Internet accessibility	.07	.17	.05
Conservation	.37	.25	.18
Step 2			
Sex	.56	.40	.17
English fluency	.29	.12	.31**
Internet accessibility	.04	.17	.03
Conservation	.62	.26	.31*
RTC	-.52	.21	-.32*

\* $p < .05$ . \*\* $p < .01$ .

the literature on values. The value literature holds that, ordinarily, a given value will yield responses that are consistent with one another (e.g., Schwartz, 1996, 2005). Although it has been acknowledged that some situations may lead to an internal conflict between values, very few studies have examined the antecedents of such conflicts (e.g., Feather, 2002; Sverdluk, 2006; Tetlock et al., 1996), and those that have focused on conflicts that result from different, incompatible values. The present studies suggest that there may be situations in which conflicts can arise within a single value dimension.

Although the surface-level relationship between a value and an outcome may suggest that the value is not relevant for predicting the outcome, an internal conflict may nevertheless exist and can only be revealed by an examination of the underlying motivational forces. Obviously, the conflicting forces will not necessarily be of equal strength. For example, in Study 1 conservation values were correlated with support for the changes even before teasing out the stability component. In other words, when comparing the force of compliance with that of stability in the context of the imposed change, compliance proved to be stronger. However, in other contexts, or with respect to other types of changes, the balance between components may be different.

The phenomenon of different aspects of a construct canceling each other out has also been suggested with respect to other personality dispositions, such as traits (e.g., Moon, 2001; Moon, Hollenbeck, Marinova, & Humphrey, 2008). For example, relating to the Five-Factor model of personality (Digman, 1990), some have argued that the conscientiousness dimension comprises two factors, duty and achievement, that in certain conditions may mask the predictive ability of the construct (Moon, 2001). Similarly, different aspects of extraversion may also cancel each other out and yield a null relationship between extraversion and an external variable such as organizational citizenship behavior (Moon et al., 2008).

Our findings are consistent with works on person–situation interactions (e.g., Mischel & Shoda, 1995), which argue that the relationship between dispositions (such as values) and outcomes are contingent on the particular context in which people behave. Certain situations may activate contrasting aspects within a given value. As we have shown, the relationship between values and individuals' reactions to change in a voluntary context is quite different than that between values and reactions to change when the change is imposed.

From an applied perspective, the insights provided here into the nature of resistance may translate into practices that can help alleviate expected resistances in contexts such as that of organizational change. Increasing the extent to which change is voluntary (e.g., by allowing for increased involvement and participation in planning change) is likely to elicit greater support from those who are high in openness values. Alternatively, emphasizing the novelty in the change may further increase these individuals' support. Contrarily, for those who are high in conservation, highlighting the importance of cooperation with the authority's initiative is likely to promote support. Furthermore, extensive preparations for the change, enhanced training with the new procedures, and sufficient amounts of time for adjustment are likely to aid high conservation individuals in handling the excess stimulation that accompanies change.

### Limitations and Future Directions

A potential limitation involves the fact that data were collected from a single source using the same survey methodology, which can sometimes yield inflated correlations between predictor and criterion (i.e., mono-method bias; e.g., Podsakoff & Organ, 1986). However, in the



present studies our focus was on the comparison of zero-order predictor–criterion correlations with regression coefficients (after controlling for dispositional resistance), rather than on simple predictor–criterion relationships. This should alleviate concern for bias, because any inflation to the zero-order correlation should also exist after controlling for dispositional resistance. Thus, any difference between the two (the correlation and regression coefficients) is likely to reflect “true” differences. The concern should be even slighter in Study 2, where our findings are based on comparisons of correlations obtained from two different experimental conditions. Moreover, by ipsatizing value scores, we controlled for individual differences in scale use and thus even further restricted the effects of single-source bias.

A second point to consider is that both studies were conducted in a university context. It is yet to be seen how our results generalize to other contexts. That said, the fact that one sample comprised employees and the other students, along with the combination of a field and laboratory settings, with consistent findings, suggests at least some level of generalizeability.

Whereas in the present studies we used indirect means to unravel the conflict, future studies may aim to directly assess the phenomenological experience of conflict and ambivalence that emerges in response to imposed change. Furthermore, future works could explore the relationship between values and other change attributes. For example, self-enhancement and self-transcendence values may play an important role when considering the outcomes of change and individuals’ reactions. Specifically, all else being equal, those who emphasize self-enhancement would be expected to exhibit support toward changes that promote their own interest whereas those who emphasize self-transcendence are more likely to support changes that promote the welfare of others.

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