Personality and Individual Differences 48 (2010) 775–778

Contents lists available at ScienceDirect

Personality and Individual Differences

journal homepage: www.elsevier.com/locate/paid

Short Communication

Competing roles for the subfactors of need for closure in moderating dissonance-produced attitude change

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ARTICLE INFO

Article history:
Received 12 August 2009
Received in revised form 14 January 2010
Accepted 26 January 2010
Available online 20 February 2010

Keywords:
Dissonance
Need for closure
Decisiveness
Need for structure
Attitude change
Trivialization
External justification

ABSTRACT

Stalder and Baron (1998) found no relation between need for closure (NFC) and dissonance, despite a prediction by Kruglanski and Webster (1996) for a positive relation. However, Stalder and Baron did not consider the two orthogonal subfactors of NFC, decisiveness and need for structure (Neuberg, Judice, & West, 1997). A reanalysis of the original data showed that need for structure predicted dissonance-produced attitude change whereas decisiveness attenuated it. In addition, only decisiveness related to two other modes of dissonance reduction (trivialization and external justification). Results underscore the importance of considering both NFC subfactors and support further investigation of dissonance-NFC connections.

1. Introduction

Cognitive dissonance is the discomfort caused by inconsistency among one's thoughts or behaviors (Festinger, 1957). After decades of fruitful research, dissonance studies continue to break new ground, including in prosocial applications and popular-press analysis of current events (Cooper, 2007). However, despite this long life and great breadth, dissonance authors have largely overlooked individual differences. Not everyone finds inconsistency equally aversive, and different individuals might reduce dissonance in different ways. Wicklund and Brehm (1976) called for more individual-difference research, but only a handful of traits have since received any attention, including attributional complexity (Stalder & Baron, 1998) and extraversion (Matz, Hofstedt, & Wood, 2008). Recent reviews of dissonance research also fail to mention such traits (e.g., Cooper, 2007; with the exception of self-esteem). Among benefits, studying individual differences might improve theoretical understanding of dissonance (e.g., Nail, Misak, & Davis, 2004). Individual-difference research might also improve application efforts by suggesting different application strategies for different people.

1.1. Need for closure and dissonance

Another trait that might connect to dissonance is *need for closure* (NFC). NFC refers to one's desire to seize and then freeze on a firm answer or view, which "should enhance the bothersomeness of cognitive inconsistency (that undermines cognitive closure) and hence elevate the magnitude of cognitive dissonance" (Kruglanski & Webster, 1996, p. 281). Stalder and Baron (1998) measured NFC (in Experiment 2) but found no dissonance-NFC relation (and did not report on that outcome). However, recent factor analyses indicate that the NFC Scale (NFCS; Webster & Kruglanski, 1994) contains two orthogonal subfactors: *decisiveness* and *structure* (or *need for structure*) (e.g., Roets & Van Hiel, 2007; Roets, Van Hiel, & Cornelis, 2006). Thus, perhaps Stalder and Baron failed to find a dissonance-NFC relation because the two subfactors moderated the dissonance outcome in opposing directions. Others have verified that the overall NFC score can overlook opposing subfactor findings (Neuberg, West, Judice, & Thompson, 1997; Stalder, 2007, 2009). This article reports a reanalysis of Stalder and Baron's data to investigate this possibility in the dissonance domain.

1.2. Structure versus decisiveness

The structure items refer to desires for clarity, order, and predictability, each of which reflects consistency concerns and predicted intolerance of ambiguity (Webster & Kruglanski, 1994).

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0191-8869/$ - see front matter © 2010 Published by Elsevier Ltd.
doi:10.1016/j.paid.2010.01.028

Thus, high-structure participants might show greater dissonance-produced attitude change than low-structure participants in Stalder and Baron's (1998) paradigm. On the other hand, the decisiveness items refer to confidence and ease in making decisions quickly, and people high on decisiveness have low fear of invalidity (Neuberg, Judice et al., 1997). Thus, people high on decisiveness might have less concern about post-decisional regret, a hallmark of early dissonance research. Conversely, indecisive individuals might postpone decisions to avoid post-decisional dissonance. Webster and Kruglanski (1994) also showed that indecisiveness predicted intolerance of ambiguity (though presented as just missing .05, the reported values for r and N dictate .05-level significance). Thus, indecisive participants might show greater dissonance-produced attitude change than decisive participants.

Additional reason to expect structure and decisiveness to relate to dissonance in these ways might be the finding that extraversion attenuates dissonance-produced attitude change (e.g., Matz et al., 2008), because structure predicts introversion whereas decisiveness predicts extraversion (Neuberg, West et al., 1997; Stalder, 2007). Stalder (2009) also showed that structure predicted but decisiveness attenuated the fundamental attribution error, a bias which might reflect consistency concerns and act as dissonance resolution (e.g., Crandall, Silvia, N'Gbala, Tsang, & Dawson, 2007).

2. Method

2.1. Participants

Undergraduates (17 men, 41 women; age $M = 19.1$, $SD = 1.5$) participated for research credit in an introductory psychology course at a large Midwestern United States university.

2.2. Materials and procedure

As part of an earlier study, participants completed a 7-item decisiveness scale ($\alpha = .80$) and 27-item structure scale ($\alpha = .89$) as part of the NFCS (for scale items, see Neuberg, Judice et al., 1997). The close-mindedness facet of the NFCS was excluded due to psychometric weaknesses (see Stalder, 2009). As part of the counterattitudinal essay paradigm, participants wrote essays favoring yearly tuition increases under low or high choice. Under low choice, participants were informed that they had to take that essay position. Under high choice, participants were informed that they could write in favor of or against yearly tuition increases but that a favorable essay would be more "useful." After writing the essay, participants completed four attitude items: (a) "The university should raise tuition yearly by a moderate amount" (1 = *strongly disagree,* 10 = *strongly agree)*; (b) "How would you describe your overall attitude toward raising tuition?" (1 = *extremely unfavorable,* 10 = *extremely favorable)*; (c) "To what extent do you think there are advantages to never raising tuition?" (1 = *no advantages,* 10 = *a great many;* reverse-scored); and (d) "To what extent do you think that a modest yearly increase in tuition is a good general strategy in maintaining the quality of university education?" (1 = *not at all,* 10 = *a great deal).* Stalder and Baron (1998) justified combining the four items into a composite measure in Experiment 1, and Experiment 2 used the same measure ($\alpha = .63$). However, new analyses indicate greater reliability by removing the reverse-scored item ($\alpha = .71$). Thus, the three items were averaged to create the attitudinal dependent measure (use of the three-item scale still led to a null relation between dissonance and overall NFC, $F < 1$).

Higher scores or more favorable attitudes under high versus low choice have been interpreted as dissonance-produced attitude change (e.g., Cooper, 2007). The basic idea is that when one behaves contrary to one's own attitude but was forced to do so, as in the low choice condition, there should be minimal dissonance. However, when one more freely agrees to write the counterattitudinal essay, as in the high choice condition, there should be greater dissonance. To reduce such dissonance, participants typically raise their attitudes to conform more closely to their essays.

Table 1
Mean attitude scores (and standard deviations) as a function of choice, structure, and decisiveness.

Trait variable	Level of choice		t	p	η^2
	Low	High			
Low structure	4.8 (1.7)	5.1 (1.5)	<1	ns	.01
High structure	4.6 (1.3)	5.5 (1.2)	1.87	.073	.12
Low decisiveness	3.8 (1.0)	5.0 (1.1)	2.88	.008	.26
High decisiveness	5.4 (1.4)	5.6 (1.5)	<1	ns	.00

Note: Low and high trait levels were determined by median splits. Higher scores indicate more favorable attitudes (range of [1,10]). For high structure, $df = 26$; for low decisiveness, $df = 24$.

Two items were also averaged to measure trivialization as an alternative mode of dissonance reduction (using 10-point scales; $\alpha = .70$). These items comprised ratings of how much effort participants applied to the essay and how personally important the tuition issue felt (lower scores under high vs. low choice indicate greater dissonance-produced trivialization). Lastly, participants provided reasons why they agreed to write the favorable essay (excluding four participants who misunderstood directions). Reasons that represented external justification (e.g., "to help the experimenter") were counted for each participant to assess another mode of dissonance reduction. A greater number of such reasons indicates greater external justification. (For additional method details, see Stalder & Baron, 1998, Experiment 2.)

2.3. Design

As done by Stalder and Baron (1998), participants were divided into high and low groups on each trait using median splits (two participants whose structure scores fell on the median were designated low structure based on the median of the larger sample of the earlier study from which the current participants were drawn; five participants whose decisiveness scores fell on the median were similarly designated high decisiveness; excluding these seven participants led to nearly identical results on all measures). Thus, $2 \times 2 \times 2$ (choice $\times$ decisiveness $\times$ structure) analyses of variance (ANOVAs) were conducted for attitude, trivialization, and external justification measures.

3. Results

3.1. Attitude change

Using the attitude measure, a $2 \times 2 \times 2$ (choice $\times$ decisiveness $\times$ structure) ANOVA indicated that choice interacted with structure in the expected direction, $F(1, 50) = 5.03$, $p < .03$. Under high structure, the typical choice effect marginally occurred, whereas there was no choice effect under low structure (see Table 1). Choice interacted with decisiveness in the opposite direction, $F(1, 50) = 5.22$, $p < .03$. Under low decisiveness, the typical choice effect significantly occurred, whereas there was no choice effect under high decisiveness (see Table 1). The main effect of decisiveness was also significant, $F(1, 50) = 13.48$, $p = .001$. Decisive participants reported more favorable attitudes overall ($M = 5.5$, $SD = 1.4$) than indecisive participants ($M = 4.4$, $SD = 1.2$). No other effects were significant.