

## Resistance to persuasion as self-regulation: Ego-depletion and its effects on attitude change processes

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### Abstract

Counterarguing persuasive messages requires active control processes (e.g., generation and application of contradictory information) similar to those involved in other forms of self-regulation. Prior research has indicated that self-regulation ability is a finite resource subject to temporary depletion with use, and so engaging in self-regulatory tasks could impair individuals' ability to subsequently counterargue. Participants completed an initial task designed to deplete or not deplete their regulatory resources. Following the manipulation, participants read a message supporting a counterattitudinal policy. Results indicated that prior self-regulation reduced subsequent resistance, primarily when the message arguments were specious. Counterargument appears to be a self-regulatory process that can be undermined when self-regulatory resources have previously been diminished.

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People are often motivated to resist persuasion in order to hold correct attitudes, restore freedom, or maintain psychological consistency and sense of control (Wegener, Petty, Smoak, & Fabrigar, 2004). Resistance to persuasion is influenced by a wide variety of factors such as characteristics of the attitude under attack (e.g., its accessibility or importance, Fazio, 1995; Zuwerink & Devine, 1996), but also characteristics of the message recipient (e.g., motivation and ability to resist the persuasive appeal, Briñol & Petty, 2005; Briñol, Rucker, Tormala, & Petty, 2004; DeMarree, Wheeler, & Petty, 2005; Haugtvedt & Petty, 1992). Counterargument is the most extensively documented means of resistance, especially under conditions when processing motivation (Petty & Cacioppo, 1979) and ability (Wood, Rhodes, & Biek, 1995) are high, such as when one has ample resources to evaluate a personally rele-

vant persuasive message. In this research, we sought to test the effects of a self-regulation construct, ego-depletion, on individuals' ability to resist counterattitudinal messages.

The term ego-depletion refers to a state in which one's self-regulatory resources are diminished, and this diminishment is proposed to occur because acts of self-regulation and volition draw upon a single, limited intrapsychic resource (Muraven, Tice, & Baumeister, 1998). Theory in this area draws upon a strength metaphor, whereby exertion in one situation is followed by a period of reduced ability in a subsequent situation. Accordingly, any exertion of willpower or self-regulation in one task, so long as it is sufficiently demanding, should reduce any subsequent self-regulation on a second, seemingly unrelated task. This prediction has been supported across many experiments (e.g., Baumeister, Muraven, & Tice, 2000; Muraven et al., 1998; Schmeichel, Vohs, & Baumeister, 2003). Ego-depletion effects do not seem to be simply the result of the amount of effort required to complete the task. For

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example, avoiding thinking about a forbidden topic reduces subsequent self-regulatory ability, whereas solving equally challenging multiplications does not (Muraven et al., 1998; see also Muraven & Slessareva, 2003, experiment 3).

Resisting persuasion is another type of task that could draw on limited self-regulatory resources, and therefore, resistance processes could be impaired by preceding self-regulation. Counterarguing persuasive messages involves actively processing the message information, retrieving or generating new contradictory information, and applying it to the message content to refute it. All of these activities require the individual to engage in active control processes to defend the pre-existing attitude from attack. These processes match the criteria used to identify processes involving self-regulation—specifically, they involve engaging processes to reach a desired state (i.e., avoiding adopting a counterattitudinal position; Carver & Scheier, 1998) and overcoming a default or natural tendency (i.e., to acquiesce, Baumeister & Heatherton, 1996). If it is true that engaging in counterargument draws on the same limited resource as other self-regulatory processes, then engaging in self-regulatory tasks that deplete such a resource should impair the ability of individuals to subsequently resist counterattitudinal appeals.

When individuals are ego-depleted, their attitudes could be biased in an upward, acquiescent direction. Many studies have shown that self-regulation failure can increase acquiescence; individuals often “give in” to easier courses of action when their self-regulatory resources are depleted, even when they have the ability to guide their thoughts and action in more effortful, contrary ways (Baumeister & Heatherton, 1996). This type of acquiescence includes agreeing with positions forwarded by others. Acquiescence is often a default, passive, and low-effort response strategy (Hanley, 1965; Krosnick, 1991) that could be increased when individuals lack self-regulatory resources.

Unlike the myriad of experiments demonstrating reduced cognitive processing of persuasive messages under distraction or cognitive load (e.g., Petty, Wells, & Brock, 1976), the paradigm investigated in the present paper makes individuals’ regulatory resource depleted, but does not restrict processing capacity at the time of persuasion. Additionally, given our self-regulatory framework, we predict that the depletion manipulation will inhibit the generation of counterarguments (i.e., unfavorable thoughts), rather than amount of thoughts generally. As a result, rather than reporting middling attitudes reflective of lack of attention to message arguments as shown in distraction experiments, ego-depleted participants could report acquiescent attitudes reflective of the types of agreement and “going along” shown in other self-regulation breakdowns.

The research in this paper was designed to test this hypothesis. Individuals were given a task shown in prior research to use and deplete regulatory resources. Following this task, they were presented with a message in favor of a counterattitudinal proposal. The quality of the message was varied such that some participants received strong and

compelling counterattitudinal arguments whereas others received specious counterattitudinal arguments. Last, participants reported their attitudes and cognitive responses.

We predicted that ego-depletion would lead to higher levels of favorability in thoughts and attitudes. Additionally, however, the effects of ego-depletion on persuasion could differ across the strong and weak message conditions. If the depletion of self-regulatory resources interferes with the generation of unfavorable cognitive responses, these effects on attitudes should be most observable under conditions in which counterargument naturally occurs most (i.e., when the counterattitudinal message contains specious arguments).<sup>1</sup> Hence, the effects of the depletion manipulation on persuasion could be larger in the weak, rather than the strong, argument condition. Thus, we predicted an ego-depletion  $\times$  argument quality interaction on attitudes and cognitive responses such that individuals would distinguish between strong and weak arguments less when their self-regulatory resources were depleted. Additionally, we expected the depletion to be observed primarily when arguments were weak, when naturally occurring counterargument would be reduced by virtue of the limited self-regulatory resources available to the depleted participants.

## Method

### *Participants*

Sixty-eight student participants (24 males, 40 females, 4 declined to state) received \$10 in exchange for their participation.

### *Procedure*

Participants were run in groups of 2–8 in partitioned cubicles. Participants were randomly assigned to ego-depletion condition (with the experimenter blind to condition), and both ego-depletion conditions were represented in all experimental sessions.

### *Materials*

*Ego-depletion task.* The ego-depletion task was the same as one used in previous self-regulation research (Baumeister, Bratslavsky, Muraven, & Tice, 1998). This task consists of two parts. In the first part, participants were instructed to cross out every “e” they could locate in a written passage. This task is relatively easy for participants and is used to establish a behavioral pattern that will be subse-

<sup>1</sup> The notion that counterargument (i.e., the generation of unfavorable thoughts) occurs primarily in response to weak arguments is supported by definition. Specifically, the recommended procedure for developing weak arguments includes pretesting the arguments among participants who are motivated to think to ensure that the arguments generate primarily unfavorable thoughts (Petty & Cacioppo, 1986).

quently overridden or not. Participants had 5 min to complete this before the experimenter stopped them.

The second part of the task included the manipulation. Participants in the low-depletion condition repeated the first part, using the same rule that they had already learned. Participants in the high-depletion condition circled letters again but were instructed to cross out each “e” in the text, except when another vowel followed the “e” in the same word (e.g., “read”) or when a vowel was one letter removed from the “e” in either direction (e.g., “vowel”). This latter rule required participants to override their established, habitual patterns and thus necessitated the exertion of self-regulatory resources. Both groups of participants had 5 min to complete the second part of the task.<sup>2</sup>

*Counterattitudinal appeal.* Participants were told that the university was considering implementing of mandatory comprehensive examinations in the upcoming academic year and wanted to first get students’ reactions toward the policy. This policy is counterattitudinal to participants and was selected to motivate resistance to the message.

Manipulated within the message was the quality of the arguments (Petty & Cacioppo, 1986). Some participants read weak arguments, such as that the exams were desirable because they would permit students to compare their scores with students at other universities. Other participants read strong arguments, such as that the exams would lead to significant improvements in undergraduate education.

*Attitude reports.* Participants reported their attitudes toward the proposal along a series of 9-point semantic differential scales anchored by beneficial/harmful, good/bad, favorable/unfavorable, positive/negative, wise/foolish, and in favor/against ( $\alpha = .96$ ).

*Cognitive responses.* Participants listed the thoughts they had in response to the message using a thought-listing task (Cacioppo & Petty, 1981). Later, the computer presented them the thoughts they had listed and instructed them to indicate whether each thought was positive, negative, or neutral toward the proposal.

*Additional measures.* Three items measured the amount of effort, attention, and thought participants reported devoting to processing the persuasive message. These items were anchored by 1 = *not at all* and 9 = *very much*. Participants also reported their perceptions of message relevance along the same scale.

Additional items measured how much participants enjoyed the ego depletion task, how difficult they found the task, how tired they felt after the task, how interesting the task was, and how much effort they put into the task. These items were measured on 5-point scales anchored by 1 = *not at all* (e.g., enjoyable) and 5 = *very* (e.g., enjoyable).

## Results

Results were analyzed using a 2 (ego-depletion condition: depleted or not depleted)  $\times$  2 (argument quality: strong or weak) ANOVAs, except where noted.

### *Attitudes toward the proposal*

Analyses of participants’ attitudes yielded a significant main effect of argument quality,  $F(1,64) = 10.57$ ,  $p = .002$ , such that strong arguments ( $M = 4.83$ ,  $SD = 1.78$ ) were more persuasive than weak arguments ( $M = 3.48$ ,  $SD = 1.76$ ). Additionally, in partial support of our first hypothesis, there was a marginally significant main effect of ego-depletion,  $F(1,64) = 3.07$ ,  $p = .08$ , such that depleted participants ( $M = 4.53$ ,  $SD = 1.80$ ) tended to report more positive attitudes toward the proposal than did non-depleted participants ( $M = 3.75$ ,  $SD = 1.91$ ). Both of these effects were qualified by the predicted ego-depletion  $\times$  argument quality interaction,  $F(1,64) = 5.04$ ,  $p = .03$ . Non-depleted participants were significantly more persuaded by strong arguments ( $M = 4.94$ ,  $SD = 1.78$ ) than by weak arguments ( $M = 2.69$ ,  $SD = 1.32$ ,  $p = .0002$ ), whereas depleted participants did not distinguish between strong ( $M = 4.74$ ,  $SD = 1.83$ ) and weak ( $M = 4.32$ ,  $SD = 1.80$ ) arguments ( $p = .48$ ). Looked at another way, depleted and non-depleted individuals were equally persuaded by strong arguments, ( $p = .73$ ), but depleted individuals were significantly more persuaded by weak arguments than non-depleted individuals ( $p = .006$ ).

### *Cognitive responses*

A thought favorability index was computed as the difference between the number of favorable and unfavorable thoughts divided by the total number of thoughts.<sup>3</sup> Negative scores on this index indicate primarily unfavorable thoughts toward the proposal, whereas positive scores on this index indicate primarily favorable thoughts toward the proposal. Analyses of participants’ cognitive responses yielded a significant main effect of argument quality,  $F(1,61) = 4.09$ ,  $p = .05$ , such that strong arguments ( $M = -.40$ ,  $SD = .47$ ) led to relatively more favorable thoughts than weak arguments ( $M = -.63$ ,  $SD = .45$ ). This effect was qualified by the predicted ego-depletion  $\times$  argument quality interaction,  $F(1,61) = 7.52$ ,  $p = .008$ . Non-depleted participants generated relatively more favorable thoughts when they read strong arguments ( $M = -.29$ ,  $SD = .52$ ) than when they read weak arguments ( $M = -.81$ ,  $SD = .25$ ,  $p = .001$ ), whereas depleted participants did not distinguish between strong ( $M = -.51$ ,  $SD = .39$ ) and weak ( $M = -.43$ ,  $SD = .54$ ) arguments ( $p = .61$ ) in their cognitive responses. Looked at another way, depleted and non-

<sup>2</sup> The text used in both portions of the task was comprised of technical expositions excerpted from a statistics book and was unrelated to comprehensive exams. The photocopied passages were the same for both portions of the task, although copy quality was decreased for the depletion group in the second half of the task (see Baumeister et al., 1998).

<sup>3</sup> Three participants did not list any thoughts and so were excluded from the analysis.

depleted individuals generated similar thoughts in response to strong arguments, ( $p = .17$ ), but depleted individuals generated significantly more favorable thoughts in response to weak arguments than did non-depleted individuals ( $p = .02$ ). Hence, although all participants generated more unfavorable than favorable thoughts, the predicted interaction was obtained.

#### *Evaluation of alternative hypotheses*

Additional analyses tested whether these effects could be plausibly attributed to differential amounts of effort devoted to reading the proposal or to irrelevant features of the ego-depletion task. If the ego depletion manipulation made participants deliberately alter their effort toward evaluating the persuasive appeal, for example, this could be inconsistent with the ego-depletion account. Ego-depletion  $\times$  argument quality ANOVAs on reported attention to the proposal message, reading effort, self-perceived thoughtfulness, and perceived relevance of the message yielded no significant effects. These null results are inconsistent with the notion that depleted individuals voluntarily withheld effort in processing the persuasive appeal, relative to non-depleted individuals.

We also further examined cognitive responses to explore the extent to which the patterns of attitude change were attributable to differential levels of cognitive effort. Low levels of elaboration are typically associated with fewer cognitive responses reported in a thought-listing task and lower thought-attitude correlations (see Cacioppo & Petty, 1981; see Wegener, Downing, Krosnick, & Petty, 1995). Results indicated that individuals in the high ( $M = 6.94$ ,  $SD = 2.84$ ) and low ( $M = 6.76$ ,  $SD = 2.59$ ) depletion groups generated similar numbers of total thoughts,  $t(1,66) = .27$ ,  $p = .79$ , and the valence of these thoughts was correlated with attitudes equally in the high ( $r = .73$ ) and low ( $r = .78$ ) depletion groups,  $z = .40$ ,  $p = .65$ . These patterns, too, are inconsistent with a differential elaboration account for the attitude change results.

A series of  $t$  tests were conducted to determine whether participants' perceptions of the high and low ego-depletion tasks differed significantly in ways that could account for the obtained attitude results. These analyses on feelings of being tired and on task enjoyment, effort, and interest also revealed no significant effects. These results are inconsistent with the notion that irrelevant features of the task such as its difficulty or inherent interest to participants were responsible for subsequent differences in information processing observed for the persuasive message.

#### **Discussion**

This research supports the notion that self-regulatory resources are involved in resisting counterattitudinal messages and that such resistance can be thwarted by reduced self-regulatory capacity. More specifically, individuals who

engaged in a task designed to reduce their self-regulatory resources reported more positive attitudes toward a counterattitudinal policy than those not so depleted. These effects occurred primarily among individuals who received weak and specious messages, and patterns of cognitive responding were consistent with the notion that depleted individuals generated more favorable cognitive responses than did individuals who were not depleted. Interestingly, these effects occurred despite high levels of processing effort on the part of depleted individuals that were equal to that of non-depleted individuals. These effects were also not due to differences in perceptions of the depletion tasks or of the difficulty of the depletion tasks.

These findings are important for several reasons. First, these findings expand our understanding of how situational factors can affect information processing and attitude change. Previous research has shown that factors such as time pressure or distraction in the present environment can interfere with the processing of persuasive messages (e.g., Petty et al., 1976). Our findings suggest that, even when individuals are free to take unlimited time to read self-relevant persuasive messages in a non-distracting environment, they may still fail to accurately assess the merit of and reject weak and specious arguments. Hence, the effects of prior situational variations may affect subsequent attitude change processes. Much like situational primes (e.g., DeMarree et al., 2005), efforts at self-regulation can affect judgment and behavior some time after the event has occurred. Nevertheless, although separated temporally, our depletion and persuasion tasks took place in succession and in the same setting. Future research is necessary to test the extent to which greater changes in context or greater time delays would affect these results.

Second, these findings provide and suggest critical links between the attitude change and self-regulation literatures, promoting novel ways of thinking about attitude change. Although research on other forms of mental control such as the suppression of thoughts (Wegner, 1994) and stereotypes (Macrae, Bodenhausen, Milne, & Jetten, 1994; von Hippel, Silver, & Lynch, 2000) has been guided by a self-regulatory framework, the attitude change literature has generally not. Nevertheless, there are a number of parallels between these two literatures. For example, high levels of self-focus have been shown to sometimes increase self-regulation of behaviors (Carver & Scheier, 1981; Duval & Wicklund, 1972), just as it has been shown to reduce stereotyping (among those motivated to resist doing so, Macrae, Bodenhausen, & Milne, 1998) and increase resistance to attitude change (Hutton & Baumeister, 1992, see, Briñol & Petty, 2005, for discussion of other roles self-focus can play in attitude change). Future research could examine whether additional antecedents, consequences, and parallel effects are shared between the attitudes and self-regulation literatures.

Third, the current findings also have potential implications for why people may engage in undesired behaviors. Previous research has shown that ego-depletion can increase the likelihood that people will engage in undesired behaviors

(Vohs & Heatherton, 2000), and the present research shows that it can promote positive attitude shifts toward counterattitudinal policies, especially when justification for such policies are weak. This suggests the intriguing, albeit highly speculative, possibility that part of the reason individuals engage in undesired behaviors is because they lack the ability to successfully regulate the evaluative (i.e., approach and avoidance) responses they have to objects.

People's evaluative responses have been shown to shift as a function of their current goals (e.g., Ferguson & Bargh, 2004). For example, previous research has shown that objects and people are evaluated more favorably when they promote goal attainment than when they inhibit goal attainment (Ferguson & Bargh, 2004; Fitzsimons, 2004), and objects that do not facilitate goal attainment are devalued (Brendl, Markman, & Messner, 2003). These evaluative shifts are proposed to provide approach motivation that assists individuals in attaining their goals.

It is possible that the evaluative shifts in our study are a part of a more general tendency for ego-depletion to interfere with evaluative responding, and hence, approach and avoidance motivations to goal-relevant objects. If this were true, it could be that individuals who are ego-depleted or otherwise unskilled at self-regulation could exhibit weaker evaluative shifts regarding objects that facilitate or inhibit goal attainment. These hypotheses are clearly speculative and would involve more automatic processes than those likely to be at work in the present studies. Nevertheless, these kinds of extensions of self-regulation and attitude change research would lend additional insight into not only automatic evaluation processes, but also mechanisms behind and individual differences in self-control.

#### *Locus and generality of effects*

In our studies, we examined resistance to persuasion as the process of generating more unfavorable cognitive responses to the weak persuasive messages. According to our conceptualization, it is this process that was disrupted in the ego-depletion conditions of our studies, and comparison with the no-depletion control group supports this conclusion. Theorists have noted that in addition to this process definition, resistance could also be defined as an outcome (i.e., no change following a persuasive appeal, Petty, Tormala, & Rucker, 2004; Wegener et al., 2004). Using this definition, one may wonder how the weak arguments condition of our study corresponds to a "baseline" condition.

To examine this issue, we collected additional data from the same relatively population. Participants read that the university was considering implementing comprehensive exams at their university the following year and that it wanted to first get students' reactions toward the policy. Participants reported their attitudes toward the exams in the absence of any arguments (the "baseline" condition) or after reading the same weak arguments presented to participants in our experiment. Results indicated that the "baseline" ( $M = 3.95$ ,  $SD = 1.92$ )

participants reported attitudes equivalent to those who read weak arguments ( $M = 3.58$ ,  $SD = 1.77$ ,  $t(1, 103) = .77$ ,  $p = .44$ ). These results are consistent with the notion that, in the absence of ego-depletion, participants who read weak arguments in favor of a policy are able to resist persuasion in the sense that exposure to the persuasive communication does not change their attitudes.

It is nevertheless important to remember, however, that our hypotheses concern resistance as a process, and not as an outcome. Under some conditions, it may be that exposure to weak arguments would lead to sufficient counterargument to lead to a "boomerang" effect (i.e., attitudes becoming more opposed to the proposal after reading the arguments). According to our process perspective, to the extent that this boomerang-inducing counterargumentation is disrupted by ego depletion, one might find both depleted and non-depleted individuals exposed to weak arguments differing from a no-message control group, such that depleted people were more favorable after reading the message and non-depleted people were more unfavorable after reading the message.

It is also important to note that we would not predict that ego depletion would necessarily always reduce resistance (as an outcome) to persuasive messages. Although the process of thoughtfully resisting persuasion (e.g., through generating unfavorable thoughts) appears to involve self-regulatory resources, other forms of resistance may not. For example, avoiding exposure to a boring advertisement would probably consume very little self-regulatory resources, but would presumably be effective in eliminating attitude change. In our studies, exposure to the persuasive message was relatively required, and so these types of lower-effort regulation strategies were not as available to participants.

Although our predictions were supported for the attitudinal issue of comprehensive exams, the extent to which these findings would occur for other attitude issues should be tested in future research. For example, students may have held only rather weak pre-existing attitudes toward comprehensive exams, and the observed effects of ego-depletion may not have occurred for an attitude issue toward which individuals hold much stronger attitudes (e.g., abortion). On the other hand, if ego-depletion interferes with the generation of counterarguments, one might expect to observe larger ego-depletion effects for stronger attitudes, because counterargument is more likely to occur for strong than weak attitudes (see Petty & Krotnick, 1995) and should therefore be easier to detect under these conditions. Because self-regulation can be affected by motivation just as resistance to persuasion can (Muraven & Slessareva, 2003), ego-depletion seems most likely to lead to observable reductions in resistance under circumstances when motivation to resist is present but not sufficiently powerful to overwhelm the effects of ego-depletion. Future research should examine whether and how attitude strength and extent of ego-depletion interact to affect resistance to persuasion.

## Implications

The present research has potential implications for many applied contexts. For example, marketing attempts could sometimes become more successful to the extent that individuals have been using their self-regulatory resources, especially when the appeals lack compelling support. One's resources may be more depleted at the end of the day because of the many independent acts of willpower required to navigate through social life (Baumeister & Heatherton, 1996). Similar to the lack of impulse control for behavior observed late at night (e.g., drinking, gambling, and overeating), failures of mental self-regulation might be also more likely to occur at the end of the day, making people more vulnerable to persuasion. More generally, populations may differ with respect to their resistance to persuasion. Dieters, individuals quitting smoking, and medical school students may all have lowered resistance to persuasion by virtue of their heavy self-regulatory demands.

Although prior self-regulation can have temporary deleterious effects on subsequent self-regulation, ego strength can improve with practice over the long term (e.g., Muraven, Baumeister, & Tice, 1999). Additional research in our labs is providing support for this factor's effect on persuasion as well. In one study, participants were instructed to think about the prior year while either suppressing thoughts and emotions about a specific person that was important to them during that period or not suppressing such thoughts. Following this depletion manipulation, participants read a message that contained either strong or weak arguments and advocated tuition increases at their school. Results indicated reduced effects of argument quality among those in the depletion condition, but this effect was moderated by their practice at mental control. More specifically, individuals who regularly engaged in mental control practices like yoga were not affected by the depletion manipulation. These results replicate those presented here with different manipulations, and they provide initial evidence regarding means by which individuals can increase their ability to resist influence by specious arguments under difficult conditions. Furthermore, these results further distinguish ego-depletion from other alternative mechanisms such as mental effort or difficulty, because chronic experience in self-regulation should not affect these types of processes.

## Other theoretical frameworks

It is important to note that the self-regulatory processes uncovered in the present research are distinct from processes investigated in other paradigms. For example, Gilbert and colleagues (e.g., Gilbert, 1991) have argued that individuals automatically encode new statements in memory as true; disbelief of any new statement, even those blatantly labeled as false, requires additional cognitive effort. From this point of view, ego-depleted individuals simply may have had fewer cognitive resources available, and therefore, were more likely to believe any statement they read.

Although this alternative explanation may have some appeal on the surface, strong and weak arguments in this paradigm influence persuasion not because of varying degrees of (dis)belief, but rather because of the quality of support they provide the proposal. That is, non-depleted participants who rejected weak arguments, such as that comprehensive exams would enable them to compare their scores with students from other universities, did so not because they disbelieved that the statements were true (i.e., that they actually could compare their scores), but rather because the arguments did not provide a reasonable and valuable basis for the institution of comprehensive exams. Furthermore, additional data (e.g., self-reported effort, cognitive responses) yielded nothing that suggests that depleted participants expended differential cognitive effort than non-depleted participants. In fact, participants were allowed all the time they needed to read and form an evaluation of the proposal.

Another line of research on the disrupt-then-reframe technique (Davis & Knowles, 1999; Fennis, Das, & Pruyn, 2004) shows that individuals are more likely to comply with a request when they are momentarily confused in some way (e.g., an unusual statement) and subsequently presented with a compelling argument. Davis and Knowles argued that the success of this technique relies on unexpected elements that disrupt individuals' typical interaction scripts, which in turn prompts them to attend to the details of the appeal (see also Erikson, 1964; Wegner & Vallacher, 1986). Although this technique is similar to ego-depletion in some respects, our ego-depletion manipulation did not involve confusing participants or disrupting their interaction scripts in any way, and attending to the details of weak arguments reduces their efficacy (see Knowles & Lynn, 2004 for more discussion of the differences between these two means of reducing resistance).

## Conclusion

These findings provide further support for the ego-depletion framework and for the strength model in particular. This explicit link between the self-regulation and persuasion literatures has the potential to generate many provocative and novel findings and to enhance our understanding of both self-regulatory ability and resistance to persuasion. Thinking about resistance to persuasion as a self-regulatory process not only creates a linkage between two broad literatures, but also leads to the generation of many interesting hypotheses regarding the individuals in whom and the processes by which resistance to persuasion will operate.

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