The Bigger They Are, the Harder They Fall: The Paradoxical Effect of Regulatory Depletion on Attitudes

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Collaborators

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• Attitude = Evaluation (cognitive, affective, behavioral)

Comprehensive Exams as a Requirement for Graduation

Bad ___ ___ ___ ___ ___ ___ ___ ___ Good
Favorable ___ ___ ___ ___ ___ ___ ___ ___ Unfavorable
Wise ___ ___ ___ ___ ___ ___ ___ ___ Foolish
Negative ___ ___ ___ ___ ___ ___ ___ ___ Positive
Desirable ___ ___ ___ ___ ___ ___ ___ ___ Undesirable
Persuasion and Resistance

• Argument quality (weak vs. strong)
• Cognitive elaboration (amount of)
• Counterarguing (cognitive responses)
  – Content of thoughts (thought favorability)
  – Ease/difficulty of resistance process
• Attitude strength variables
  – Attitude accessibility
  – Attitude knowledge
  – Attitude importance
  – Attitude certainty
• All social influence meets resistance
• A metacognitive aspect of the attitude characterized by the subjective sense of clarity in, and correctness of, one’s attitude (Petrocelli, Tormala, & Rucker, 2007)
  – Antecedents: attitude accessibility, attitude object knowledge, attitude extremity, consensus information
  – Consequences: resistance to persuasion (stability), persistence, predictive of behavior
Theoretical Perspective of Self-Regulation

• Strength model of self-control (Baumeister, Schmeichel, & Vohs, 2007; Baumeister, Bratslavsky, Muraven, & Tice, 1998)
  – People possess a reserve of regulatory resources necessary for executive functioning
  – Resources are limited
  – Expenditures of resources reduce the availability of resources and consequently the ability to succeed at subsequent self-regulatory behaviors
  – People are motivated to conserve resources
  – People can feel depleted of their resources*
Prior Self-Regulation and Persuasion Research

• Wheeler, Briñol, & Hermann (2007)
  – Depletion boosts the potency of weak arguments
• Burkley (2008)
  – Depletion boosts the potency of strong arguments
• Clarkson, Hirt, Jia, & Alexander (2011)
  – Perceived depletion is more important than actual depletion in the context of persuasion (Exp. 3)
• Wan, Rucker, Tormala, & Clarkson (2010)
  – Depletion can increase one’s perceived cognitive elaboration, and attitude certainty, and influence one’s purchase decisions
Figure 3
ATTITUDE CERTAINTY AS A FUNCTION OF REGULATORY DEPLETION AND NAIVE BELIEF (EXPERIMENT 3)

Wan et al. (2010)
Basic Research Question

- How does the link between pre-existing attitude certainty and persuasion/resistance “behave” within the context of regulatory resource depletion?
  - Do different levels of attitude certainty shape attitude change (or lack thereof) as it usually does?
  - If so, what mechanisms help to explain the link?
Hypotheses

- **Attitude Certainty “Protects” Hypothesis:**
  - Under depletion, high attitude certainty leads to less attitude change than low attitude certainty

- **Depletion Deflates Counterarguing Hypothesis:**
  - Wheeler et al. (2007)

- **Expectancy-Violation and Misattribution Hypothesis:**
  - People have expectations that depend on their level of attitude certainty
  - When expectations are violated, depletion can be misattributed to the resistance process (e.g., perceived counterarguing performance)
Study 1

- $N = 34$
- Attitude object: mandatory comprehensive exams
- Certainty assessed:
  - “How clear do you think your attitude is in your mind?”
  - “How correct do you think your attitude is?”
  - 1 (extremely unclear/incorrect) to 9 (extremely clear/correct)
Study 1

• Expectations assessed:
  – “How resistant do you think your attitude would be to a counterattitudinal persuasive attack?”
  – “How easily do you think you could be persuaded to think differently about this issue?”
  • 1 (not at all resistant/not at all) to 9 (extremely resistant/very easily).

• Attitude certainty/resistant, $r = .38, p < .01$
• Attitude certainty/persuadable, $r = -.54, p < .01$
Table 1

**Descriptive Statistics and Results of Repeated Measures Analysis of Variance Tests (Study 1)**

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Weak Attitude</th>
<th></th>
<th>Strong Attitude</th>
<th></th>
<th>F(1, 33)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td></td>
</tr>
<tr>
<td>Certainty</td>
<td>4.82</td>
<td>1.96</td>
<td>8.03</td>
<td>.90</td>
<td>93.33*</td>
</tr>
<tr>
<td>Expected resistance</td>
<td>4.08</td>
<td>1.62</td>
<td>6.38</td>
<td>2.50</td>
<td>17.21*</td>
</tr>
<tr>
<td>Expected ease of persuasion</td>
<td>6.18</td>
<td>1.88</td>
<td>2.73</td>
<td>1.68</td>
<td>54.37*</td>
</tr>
</tbody>
</table>

*p < .001.*
Study 2

- \( N = 111 \)
- 2 (depletion) \( \times \) 2 (argument quality) between-subjects design
  - Attitude object: “Wake Forest University is considering the implementation of mandatory comprehensive exams for seniors next academic year. Passing the comprehensive exam would become a requirement for graduation.”
- Attitude (Time 1) and attitude certainty
- E task and white bear task
- Strong or weak arguments in favor of exam policy
- Attitude (Time 2) and thought-listing task
Cross out every “e” except when a vowel follows the “e” or a vowel is one letter removed from the “e” in either direction. When you have completed the task, click the right arrow icon below. Then select Keep to the first question, and No to the second question.

Select the felt tip pen by clicking “pen” icon below and selecting Felt Tip Pen.

When you are finished, remember to click the right arrow and then select Keep to the first question, and No to the second question that follows.
Study 2

Low Attitude Certainty

- **Not Depleted**
  - Strong Arguments: 1
  - Weak Arguments: 0.5

- **Depleted**
  - Strong Arguments: 0.1
  - Weak Arguments: 0.05
Study 2

Low Attitude Certainty

- Strong Arguments
- Weak Arguments

High Attitude Certainty

- Strong Arguments
- Weak Arguments
Study 3

- $N = 158$
- $2$ (depletion) $\times 2$ (argument quality) $\times 2$ (attitude certainty) between-subjects design
  - Attitude object: mandatory comprehensive exams
- Attitude (Time 1)
- Attitude certainty manipulation
- E task and white bear task
- Strong or weak arguments in favor of exam policy
- Attitude (Time 2) and thought-listing task
- Perceived counterargument performance
- Perceived elaboration
PLEASE READ CAREFULLY

Below, you are presented with your strength index. This index reflects the computer’s analysis of the strength of the reasons you listed for your attitude based on comparisons with those stored in the International Foundation for Coordination of Scientific Research database.

General information: The index can range from 1 – 30. If your index is greater than 15, that indicates that your reasons for your attitude were strong and compelling. If your index is 15 or less, that indicates that your reasons for your attitude were weak and not compelling. You will see this number once.

Your strength index is: 28

Thus, your reasons were.......................very strong / very compelling

[Press the ESC key to continue]
PLEASE READ CAREFULLY

Below, you are presented with your strength index. This index reflects the computer’s analysis of the strength of the reasons you listed for your attitude based on comparisons with those stored in the International Foundation for Coordination of Scientific Research database.

General information: The index can range from 1 – 30. If your index is greater than 15, that indicates that your reasons for your attitude were strong and compelling. If your index is 15 or less, that indicates that your reasons for your attitude were weak and not compelling. You will see this number once.

Your strength index is: 3

Thus, your reasons were.......................very weak / not very compelling

[Press the ESC key to continue]
Study 3

- Manipulation check of attitude certainty:

  “thought are very strong and compelling”
  \( (M = 7.32, SD = 1.78) \)

  “thoughts are not very strong and compelling “
  \( (M = 5.98, SD = 2.12) \)

  \( t(156) = 4.32, p < .001 \)
Study 3

Low Attitude Certainty

- Strong Arguments
- Weak Arguments

Regulatory Resources:
- Not Depleted
- Depleted

Attitude Change
Study 3

Low Attitude Certainty

- Strong Arguments
- Weak Arguments

High Attitude Certainty

- Strong Arguments
- Weak Arguments
Study 3

Low Attitude Certainty

- **Strong Arguments**
- **Weak Arguments**

Perceived Counterargument Perf.

<table>
<thead>
<tr>
<th>Regulatory Resources</th>
<th>Not Depleted</th>
<th>Depleted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strong</td>
<td>Weak</td>
</tr>
<tr>
<td></td>
<td>3.5</td>
<td>5.5</td>
</tr>
</tbody>
</table>

Wake Forest University
Study 3

Low Attitude Certainty

- Not Depleted
- Depleted

Perceived Counterargument Perf.

Strong Arguments
Weak Arguments

High Attitude Certainty

- Not Depleted
- Depleted

Perceived Counterargument Perf.

Strong Arguments
Weak Arguments
Study 3

Figure 4. Results of mediated moderation analysis (Study 3).

Note. Values displayed above are standardized beta coefficients.

*p < .05. **p < .01.

Indirect effect = -.61 (SE = .29), 95% CI [-1.29, -.11]
Alternative Explanations

- Perceived elaboration (Study 3)
- Thought favorability (TF; Study 2 and Study 3)

\[ \text{TF} = \frac{\text{positive thoughts} - \text{negative thoughts}}{\text{total thoughts}} \]

- Under depletion, same for weak and strong

- Negative thoughts, total thoughts
• The bigger they are (i.e., the greater one’s attitude certainty) the harder they fall (i.e., the more attitudes may change) under conditions of regulatory depletion
  – Especially when argument quality is strong
• This process appears to involve an inference/misattribution process involving perceived counterargument performance
Future Directions

• Stability and persistence of attitude change
  – Does the initial attitude return? (PAST model; Petty, Tormala, Briñol, & Jarvis, 2006)
  – Time 2 attitude certainty (Wan et al., 2010)
• Manipulate perceived counterarguing performance
• Turning off misattribution (diagnosticity)
• Perceived performance in other resistance techniques beyond counterarguing (Jacks & Cameron, 2003)
  – Attitude bolstering
  – Selective exposure
  – Source derogation
  – Social validation