

Energy Conservation Behavior in Public Settings: Examining the Separate Influences of Social Normativity and Personal Responsibility

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Background

Abstract: An intervention aimed at promoting energy conservation behavior in public bathrooms examined the separate influences of descriptive norms and personal responsibility concerns. Results highlight the importance of considering mechanisms related both to social normativity and personal responsibility when designing such interventions.

Societal recognition of the importance of promoting environmentally sustainable behavior has grown considerably over the past decade (Kazdin, 2009), with much of this attention focused on the importance of conserving energy. How might psychological science be utilized to encourage pro-environmental behavior?

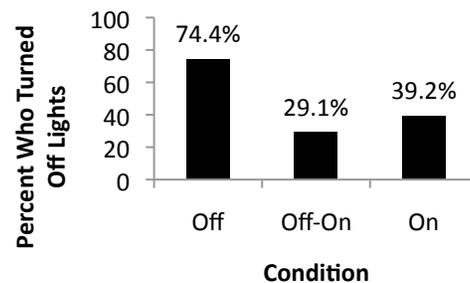
Previous research suggests that social norm based interventions can be effective in promoting energy conservation behavior (Goldstein, Cialdini, & Griskevicius, 2006). For instance, a recent study by Maki, Dwyer, and Rothman (2012) examined these dynamics within the context of public bathrooms. In this study, the status of the lights (i.e., on or off) was unobtrusively manipulated before someone entered an unoccupied public bathroom.

It was hypothesized that the light status upon entry into the bathroom would signal the descriptive norm surrounding electricity usage for that setting, and thus influence the likelihood that a person turns the lights off upon exit. Results supported this hypothesis; participants were significantly more likely to turn the lights off if they were off when they entered, as compared to if the lights were on.

The Present Study

Despite the hypothesized influence of descriptive norms in our previous study, however, we feel it is also important to consider the influence of a sense of personal responsibility, which has been shown to influence prosocial behavior in other settings (Berkowitz, 1972; Darley & Latané, 1968). It may be the case that participants who entered the bathroom when the lights were off felt a greater sense of responsibility to turn the lights off when they left, as they were the ones personally responsible for turning them on initially. That is, they may have been motivated not to behave in accordance with the perceived norm, but rather may have felt responsible for leaving the bathroom in the same state that they personally found it when they entered.

We conducted a new experiment (N = 149) in which the separate influences of descriptive norms and personal responsibility concerns were manipulated. In addition to the "on" and "off" conditions that were used in the original study, a third experimental condition was added. In this condition, a confederate was leaving the bathroom when the participant was entering it, and the confederate initially turned the lights off (thereby signaling normative behavior for the setting), but then turned them back on upon seeing the participant waiting to use the bathroom (thereby reducing the responsibility placed on the participant to turn them off, since they did not turn them on themselves).



Findings

As in our initial experiment participants in the "lights off" (i.e., norm + responsibility) condition were significantly more likely to turn off the lights when they exited, as compared to participants in the "lights on" (i.e., control) condition (74% vs. 39% respectively, $\chi^2(1, N = 94) = 11.70, p = .001$).

Results also revealed that participants were significantly more likely to turn the lights off when the lights were off (i.e., norm + responsibility) when the participant entered, as compared to the "off, then on" (i.e., norm only) condition (74% vs. 29% respectively, $\chi^2(1, N = 98) = 19.84, p < .001$).

However, there was not a significant difference in likelihood of turning the lights off between the "off, then on" (i.e., norm only) and "on" (i.e., control) conditions (29% vs. 39% respectively, $\chi^2(1, N = 106) = 1.21, p = .271$).

These results suggest that when personal responsibility concerns were diminished, energy conservation behavior was also substantially diminished. Therefore, this study highlights the importance of considering mechanisms related to a person's sense of responsibility when designing energy conservation interventions.

References

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