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# Using Induced Hypocrisy To Nudge Consumers To Choose Eco-friendly Products

## Abstract

Induced hypocrisy is a two-step dissonance paradigm, consisting of normative commitment and mindfulness of past transgressions. The inconsistency between one's belief and action lead to psychological discomfort, such as guilt, motivating people to adopt attitude or new behavior that better aligns with the belief. This paper explores individual role of normative commitment and mindfulness and the moderating role of norm salience in the context of eco-friendly product consumption. This paper predicts that while mindfulness can induce enough guilt to promote attitudinal change, it induces less change compared to both commitment and mindfulness. The effect is predicted to be magnified by high injunctive norm salience.

At the end of World War II, consumers saw a sudden rise in their disposable income and were eager to spend (Cohen, 2004). On top of this trend, purchasing material goods were no longer viewed as indulgences (Cohen, 2004). Instead, consumers were praised as patriotic for contributing to the ultimate success of American way of life (Cohen, 2004) and gratified for their successes with material goods ranging from television sets via cars to home. This mass consumption has now come to rear its ugly head, as it is found to be causing environmental harm. While the impact of some consumption, such as cars, is more obvious, the negative impact clothing consumption is less visible but just as potent. For instance, the fashion industry is the second-largest water polluter, and textile production makes up 10% of global carbon emissions (McFall-Johnsen, 2019).

People are more cognizant of the effect of climate change and consider them to pose a serious threat in their lifetime. In response, people are turning toward the consumption of eco-friendly products. Such products include clothing made from organic cotton and recycled fibers. While people express their desire to purchase such products, there is a disconnect between their beliefs and actual behavior in that they often make a decision that goes against their belief (Davari & Strutton, 2014). For instance, they may decide to opt for a conventional t-shirt at H&M instead of choosing a shirt that is made from recycled fiber due to the price difference. With this disparity between belief and behavior, there needs to be new methods of encouraging people to actually follow their beliefs.

Previous research that looked at using social norms to change people's behavior (Cialdini, Reno, & Kallgren, 1990). There are two types of social norms: descriptive and injunctive norms. Descriptive norms describe a perception of what most people do in a social context, and injunctive norms describe perception of what most people would approve or disapprove (Cialdini et al., 1990). Norms can motivate and direct people's action when they are made salient and guide them to act in norm-consistent ways (Berkowitz & Daniels, 1964).

There is other literature that looks at motivations for behavioral change, such as theory of cognitive dissonance. Festinger proposed that people experience cognitive dissonance when they hold two conflicting cognitions (Festinger, 1957). People experience an uncomfortable feeling of psychological discomfort and become motivated to reduce that feeling by behavioral

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change. Aronson added onto Festinger's work, stating that dissonance arises from inconsistencies between self and behavior that violates that self-concept (Thibodeau & Aronson, 1992). Relating back to discrepancy between green beliefs and behavior, this would mean that this discrepancy would lead people to feel psychological discomfort and motivate them to change their behavior.

In the 1990s, Aronson and colleagues introduced induced hypocrisy paradigm, which is a form of cognitive dissonance, and demonstrated that under certain conditions, induced hypocrisy is a social influence technique. This theory proposes that inducing people to realize what they are practicing does not match what they are preaching, forcing them to reassess their behavior and ultimately take appropriate action to settle the discrepancy (Aronson, Fried, & Stone, 1991). This effect has been shown to successfully increase the use of condoms (Aronson et al., 1991; Stone, Aronson, Crain, Winslow, & Fried, 1994), water conservation (Dickerson, Thibodeau, Aronson, & Miller, 1992), recycling behavior (Fried & Aronson, 1995), and driving safety (Fointiat, Morisot, & Pakuszewski, 2008). Considering that inducing hypocrisy in people have led to an increase in more desirable behavior, one could use this paradigm to close the gap between one's green beliefs and behavioral intentions.

**H1: If hypocrisy is induced to arouse psychological discomfort within people who hold eco-friendly values, then there will be a greater motivation to reduce this discomfort by indicating a higher intention to purchase eco-friendly products.**

There are two steps to induce hypocrisy, in which people advocate for something that is socially desirable and then reflect back on their past transgressions. The first step is the salience of normative behavior. Participants can be instructed to make a speech to publicly advocate for a socially desirable behavior in front of a video camera or write a speech promoting the behavior (Priolo et al., 2019). Increasing the salience of norms, especially injunctive norms, led to a stronger behavioral change (Fointiat, 2008). In the second step, participants are instructed to recall their past behavior that does not conform to what they have advocated for earlier. In doing so, dissonance is aroused, and the participants are then motivated to reduce the psychological discomfort by acting accordance to what they have publicly advocated.

In the most recent meta-analysis by Priolo et al. (2019), they made a tentative conclusion that the first step may not be needed to induce hypocrisy for attitudinal and behavioral change. They proposed that being mindful of one's own transgression is enough to make the normative behavior salient. This implies that the norm has to be prevalent and widely accepted in the society such that it immediately comes to mind when people reflect back on their actions. If it is so, then there should be no significant difference in people's behavioral intention between hypocrisy condition that involves both steps and mindfulness. Thus, I hypothesize that

**H2: Injunctive norm salience will moderate the relationship between induced hypocrisy and intention to purchase eco-friendly products in that there is a higher intention to purchase when injunctive norm salience is high compared to when it is low.**

Priolo et al. (2019) also found that the effect of hypocrisy was weak and could not conclude that

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induced hypocrisy arouses psychological discomfort. Regardless, prior studies have consistently shown that hypocrisy induction creates feelings of guilt and discomfort (Son Hing, Li, & Zanna, 2002). To lessen the negative feelings induced by hypocrisy, people will increase their intention to purchase eco-friendly products.

### **H3: Guilt will mediate the effect between induced hypocrisy and intention to purchase eco-friendly products.**

## **Participants**

Participants will be recruited through Amazon's Mechanical Turk (N = 200) and will be paid 75 cents for their time. A measure of attitude toward environmental conservation will be measured and whether participants partake in eco-friendly practices to filter out for those who have a positive attitude toward environmental conservation but do not actively partake in those activities. All participants will be residents of the United States, all over the 18 years of age. I first determined the sample size given an estimated effect size from a previous unpublished exploratory study, by means of G\*Power application (Faul, Erdfelder, Buchner, & Lang, 2009). Assuming that there will be a moderate effect size of  $r = .30$  (Priolo et al., 2019) and power of .95, G\*Power estimated a total sample size of 147. In case of incomplete surveys and participants failing attention checks, I will try to recruit 51 more participants.

## **Materials and Procedures**

The design of this study is adapted from Stone et al.'s (1994) paper. This study will employ a 2 (hypocrisy vs. mindfulness) X 2 (norm salience: low vs. high) between-subjects design. I will vary whether or not subjects make a public commitment to advocating for environmentally friendly practices, such as purchasing eco-friendly products, and the degree to which they were made mindful of their past failures to be environmentally conscious. I will also manipulate whether or not subjects are reminded that most people would disapprove (injunctive norm) if they do not act environmentally friendly.

After reading the disclosure form, subjects in the hypocrisy condition will be told that they would be helping develop persuasive messages for persuading others to act environmentally friendly. They were told that part of their participation will involve making a short message on the importance of choosing eco-friendly products and posting the message on a public online forum. To help the subjects compose their message, they were given a list of facts about the importance of environmental conservation and the negative impact of fashion industry (e.g., "Fast fashion industry is the number two water polluter in the world."). For those in the high norm salience condition, there will be an extra statement that reminds the subjects that with the rapidly increasing effects of climate change, many people would not approve of them if they do not purchase eco-friendly products in favor of the cheaper, conventional products. Subjects in the low norm salience condition will not have the extra statement.

The subjects in the mindfulness only condition will be told that they will read a short list of facts about the importance of environmentalism and then asked to write down their most recent transgression, when they did not choose eco-friendly products when they had the choice to do so. Subjects in the hypocrisy condition will also be asked to write down their most recent transgression.

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## Dependent Measures

To test the effectiveness of the manipulations, I will use self-report measures of eco-friendly product purchases. The self-report measures are designed to measure subjects' past behavior and future intent to purchase eco-friendly products. The two questions were "In the past how often did you buy eco-friendly products, despite their higher cost?" (1-Not often, 9-Very often) and "In the future how likely are you to buy eco-friendly products, despite their higher cost?" (1-Not very likely, 9-Very likely). In addition to these two dependent measures, a control question on price sensitivity will be asked (1-Not very sensitive, 9-Very sensitive). To test the mediator, the subjects will complete an affect measure adapted from Son Hing et al.'s (2002) study on guilt after reflecting back on their past transgression. Participants will rate how well each affect word (e.g., guilty) describe how they are feeling.

## Results

Any participant that did not provide complete data will be excluded from the analyses. Assuming that preliminary analysis does not reveal any main or interactive effects of price sensitivity, I will move on to analyzing the two main dependent measures. Since there are four conditions, one-way ANOVA will be used for analysis. Following my prediction, I expect that there will be a main effect of hypocrisy in that the mean of hypocrisy (advocate + mindfulness) is significantly higher than the mean of mindfulness only. In addition, I expect that there will be a main effect of norm salience in that the mean of high norm salience is significantly higher than the mean of low norm salience. Most importantly, I expect that there will be an interaction between hypocrisy and norm salience. Simple effects analyses would reveal that high norm salience would have a higher intention to purchase eco-friendly products in the future among the subjects in the hypocrisy condition and that low norm salience would have the lowest intention to purchase eco-friendly products in the future among the subjects in the mindfulness only condition.

## Effect of hypocrisy mediated through guilt

The primary purpose of this analysis is to examine whether induced hypocrisy would have a positive effect on future intention to buy eco-friendly products, mediated by psychological discomfort, or more specifically guilt. I will enter the variables of interest into a mediational model and compute the bias-corrected 95% bootstrap confidence intervals for indirect effect using 10,000 bootstrap samples using the PROCESS macro (Hayes, 2013). The mediation model will test for significant indirect effect through guilt. Assuming the hypothesis is correct, the mediational analysis will indicate that induced hypocrisy is operating through feelings of guilt. To lessen the feelings of guilt, the participants will be more willing to engage in an eco-friendly activity, such as future purchase intention.

## Discussion

Overall, this study examined the magnitude effect of inducing hypocrisy (public advocacy + mindfulness). As predicted, hypocrisy (public advocacy + mindfulness) would have the highest intention for purchase. Guilt would be magnified by high injunctive norm salience. For mindfulness only condition, Priolo et al. (2019) have previously conclude from their meta-analysis that there is no statistically significant difference between having both steps of inducing

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hypocrisy and just having the transgression recall step, indicating that the process itself makes the normative behavior salient. This would explain a high intention to purchase eco-friendly products for mindfulness only + high norm salience condition. Just being mindful of one's hypocritical behavior is enough to induce guilt, and this guilt is magnified by injunctive norm. There may be a theoretical contribution with this result in that being mindful of past transgression is enough to induce guilt to change people's behavior. However, to induce the highest level of guilt and higher intention to change behavior, this study would indicate that both steps are needed. Finally, mindfulness + low norm salience would produce the lowest intention to purchase out of four conditions. Even though the participants may be aware of their past transgressions, they may dismiss their guilt because they are aware that others would not scrutinize their behavior.

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