Inducing Hypocrisy as a Means of Mass Persuasion

Thesis

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By

Angela Poe Dossett

Communication Graduate Program

The Ohio State University

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Thesis Committee:

Andrew F. Hayes, Advisor

David Ewoldsen
Abstract

Cognitive dissonance research has shown that inducing people to feel hypocritical by making them mindful of their positive attitude toward a behavior and their failure to always act in compliance with this attitude can lead to an increased adoption of attitude consonant behaviors. However, the method by which hypocrisy is typically induced is not conducive to mass campaigns. In the context of recycling, this study extends existing literature by comparing the effect of hypocrisy induction in a traditional, lab-based format with a computer-based format, considering not only behavioral consequences but also attitudinal and self-efficacy outcomes as well. Additionally, I investigate how initial attitudes moderate the effect of the hypocrisy manipulation. While induced hypocrisy did result in an increase in behavioral intentions to recycle and an increase in importance of attitudes toward recycling, these effects were limited to the traditional, lab-based condition. The computer-based hypocrisy induction had no effect on behaviors, attitudes or self-efficacy. Only initial attitudes moderated the effect of hypocrisy induction on attitude importance. Again, the relationship was limited to the traditional, lab-based condition.
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Vita

1996 . . . . . . . . . . . . Bellefontaine High School

2000 . . . . . . . . . . . B.S. Natural Resource Conservation & Management,
University of Kentucky

2007-08 . . . . . . . University Fellow, The Ohio State University

2007-09 . . . . . . . College of Social and Behavioral Sciences Fellow, The
Ohio State University

2008-09 . . . . . . . Graduate Teaching Associate, The Ohio State University

Fields of Study

Major Field: Communication
# Table of Contents

Abstract ................................................................. iii
Acknowledgments .......................................................... iii
Vita ................................................................. vi
List of Tables ............................................................... v
List of Figures ............................................................... vi
Chapter 1: Introduction ...................................................... 1
Chapter 2: Methods ............................................................ 12
Chapter 3: Results ............................................................. 29
Chapter 4: Discussion ......................................................... 34
References ................................................................. 39
Appendix A: Attitude salience form for the traditional, lab-based condition ........ 43
Appendix B: Behavioral salience form for traditional lab-based condition ........ 44
List of Tables

Table 1. Attitude Importance (Budget Ranking) Moderation of Hypocrisy Induction. . .46
Table 2. Three Way Interaction with the Attitude Importance (Budget Ranking) Moderating the Interaction between the Experimental Manipulations. ...............47
Table 3. Non-Significant Results for Initial Attitude Importance Moderating the Effects of Hypocrisy Induction. ......................................................... 48
Table 4. Three Way Interaction with Attitude Importance (Single Item) Moderating the Interaction between the Experimental Manipulations. ......................... 49
List of Figures

Figure 1. Behavioral Intention Consequences of Hypocrisy Manipulations . . . . . . . 50
Figure 2. Attitude Importance Consequences of Hypocrisy Manipulations. . . . . . 51
Figure 3. Post-manipulation Attitude Importance Outcomes of Initial Attitude Importance Interacting with Hypocrisy in the Computer-Based Condition . . . . . . . . . . . 52
Figure 4. Post-Manipulation Attitude Importance Outcomes of Initial Attitude Importance Interacting with Hypocrisy in the Traditional, Lab-Based Condition. . . . . 53
Chapter 1: Introduction

We are all hypocrites. We have all, at some point in our lives, acted in a way that was not consistent with our attitudes. This inconsistency provides a particular challenge for those of us interested in social influence. How do we inspire that shift from positive attitudes to corresponding action? This problem is a common one in fields such as health communication (e.g. smokers agreeing they should stop smoking, yet don’t), environmental communication (e.g. people agreeing that recycling is good, but not recycling), and many others areas in which people hold a positive attitude toward the target behavior yet do not engage in it. There are many factors that can contribute to this disconnect between attitudes and behavior – priorities, convenience, social pressure, and so on – making the task of resolving this inconsistency a challenging one. Therefore, information regarding processes and methods that facilitate the bridging of this gap is particularly valuable to both practitioners and scholars interested in social influence.

Though we are all hypocrites, awareness of our own hypocrisy can motivate us to change our ways. This point is demonstrated by previous research that suggests inducing hypocrisy can lead people to engage in attitude consistent behavior through dissonance-reducing mechanisms (Aronson, Fried & Stone, 1991; Stone et al., 1994; Stone et al., 1997; Dickerson et al., 1992; Fried & Aronson, 1995; Fried, 1998; Fointiat, 2004). Hypocrisy induction is carried out in situations in which individuals hold a favorable attitude (a.k.a. pro-attitude) toward a behavior, but do not always act in compliance with
that attitude. The traditional, lab-based manipulation involves asking research participants to advocate for a particular behavior (making them mindful of their attitude) and then reminding them of times when they have failed to act in accordance with that attitude (making them mindful of their hypocrisy). The discrepancy between attitudes and behavior that is made salient by this task creates dissonance.

Although behavior change is one option for reducing hypocrisy-associated dissonance, there is also the possibility of adopting a less positive attitude toward the target behavior (Fried, 1998; Warlop, Yzerbyt & Corneille, 2004), or not directly addressing the inconsistency at all (Stone, Wiegand, Cooper & Aronson, 1997; Fried & Aronson, 1995; Steele & Lui, 1983; Zanna & Aziza, 1976). The multitude of ways to resolve dissonance presents one of the primary barriers to inducing hypocrisy as a method of social influence. It is difficult to predict outcomes.

This study considers individual differences in initial attitude toward the behavior in order to explore to what extent these differences predict how a person responds to the manipulation. In other words, are people with particular attitudinal characteristics more likely to respond positively to the induction of hypocrisy than others? Previous literature on attitude bolstering (Sherman & Gorkin, 1980) would suggest this to be the case.

From the standpoint of a social influence practitioner, the goal is not only being able to predict the effect of your message but also developing the most effective message possible. Although studies using the hypocrisy paradigm often do lead to statistically significant differences in positive behavioral outcomes, these differences are not always meaningful in practical terms. Are there ways to increase the probability of achieving
positive outcomes associated with hypocrisy induction? In an effort to learn how to create hypocrisy induction messages that are more effective, this study considers the consequences of the manipulation on perceived self-efficacy and perceived behavioral control. If people respond to hypocrisy by adopting a reduced sense of self-efficacy or personal control with respect to the target behavior, then maybe the outcome of a hypocrisy message can be enhanced if it is given in conjunction with a message to increase (or support) these beliefs.

Another challenge associated with the use of induced hypocrisy as a means of social influence is that the method social scientists have traditionally used to create dissonance through hypocrisy relies on a labor intensive, face-to-face interaction. Although potentially useful for smaller-scale campaigns, as demonstrated by Dickerson et al. (1992), induced hypocrisy has yet to be effectively manipulated utilizing a method conducive to a mass campaign. Computers have the potential to effectively disseminate hypocrisy inducing campaigns by email or through websites in a manner resembling the methods used in those labor intensive studies. Therefore, this experiment compares the outcomes of inducing hypocrisy using traditional lab-based methods with a parallel manipulation carried out using a computer, addressing the question as to whether or not inducing hypocrisy has potential as a method of social influence on a mass scale.

Hypocrisy as a State of Dissonance

Cognitive dissonance theory, as proposed by Festinger (1957), revolves around the proposition that “dissonance, that is, the existence of nonfitting relations among cognitions, is a motivating factor in its own right” (Festinger, 1957, p. 3). The extent to
which dissonance is experienced is determined by the relative proportion and importance
of consonant and dissonant elements involved in the cognitive inconsistency (Festinger,
1957). Though there have been several proposed revisions to the original theory (see
Aronson, 1999; Steele & Lui, 1983; Cooper & Fazio, 1984; Harmon-Jones & Harmon-Jones,
2002), most remain in agreement with the original theory that cognitive
discrepancies cause dissonance, which in turn leads to a motivation to resolve the
dissonance (Harmon-Jones, 2002).

Once dissonance has been created, it may be resolved directly, by adjusting the
relationship (importance) or number of cognitions involved. Direct paths of dissonance
reduction include maintenance or changes in attitudes, beliefs, values or behaviors
(Harmon-Jones, 2002). However, people can also resolve their dissonance indirectly,
through means that do not involve the discrepant cognitions (Stone, Wiegand, Cooper &
Aronson, 1997). Some examples of indirect paths to dissonance reduction include
misattribution, which allows a person to attribute the arousal caused by dissonance to
some other source (Fried & Aronson 1995), and self-affirmation, which allows for
dissonance reduction by reaffirming some aspect of self-integrity (Steele & Lui 1983);
and distraction (Zanna & Aziza,1976). Dissonance may be resolved using more than one
path of dissonance resolution (Fried, 1998; McKimmie, 2003), and the method selected
for dissonance reduction depends on the available alternatives and the ease by which they
would serve to reduce dissonance (Stone, 1997).

Admittedly, the multitude of options for dissonance resolution presents a
challenge to those interested in achieving behavior change via dissonance resolution.
However, there is evidence that preference is given to resolving dissonance directly when the opportunity to do so is equally available and involves the same level of effort as an indirect dissonance reduction opportunity, and that this preference for direct resolution of dissonance persists even when the indirect path of dissonance reduction is more important to global self-worth (Stone et al., 1997).

In the early 1990s, Aronson and colleagues began publishing on the process of inducing hypocrisy (i.e., the hypocrisy paradigm) to explore cognitive dissonance. Research done in the context of condom use (Aronson, Fried & Stone, 1991; Stone et al., 1994; Stone et al., 1997), water conservation (Dickerson et al., 1992), recycling (Fried & Aronson, 1995; Fried, 1998), and respect for speed limits (Fointiat, 2004) has shown that hypocrisy induction can lead to dissonance that is directly resolved by the adoption of target behaviors.

However, Fried and Aronson (1995) were able to completely wipe out the effects of an induced hypocrisy manipulation by offering participants the opportunity to misattribute their feelings of dissonance to environmental conditions, and Fried (1998) demonstrated that people identified with their hypocrisy (rather than remaining anonymous) were less likely to adopt target behaviors and more likely to change their attitude toward the behavior to be less favorable. Additionally, Warlop, Yzerbyt & Corneille (2004) reported on a series of induced hypocrisy experiments that had null or negative effects.

This study is closely modeled after experiments which demonstrated positive outcomes in response to the induction of hypocrisy. It considers not only a traditional,
lab-based induced hypocrisy manipulation, but also a parallel one carried out on a computer. The comparison between the traditional method of inducing hypocrisy and the computer version of induced hypocrisy is of interest because the conventional methods for manipulating mindfulness of attitude and hypocritical behavior are limiting. Dickerson et al. (1992) did study induced hypocrisy in a naturalistic setting by approaching women leaving the pool area at a university, asking them to sign a flyer in support of water conservation and then asking them about their water conservation habits. However, the manipulation was labor intensive, and would not have been appropriate for a mass context. To my knowledge, induced hypocrisy has never been tested in a mass setting. Are there less labor intensive ways of successfully evoking enough dissonance to achieve behavior change through induced hypocrisy? Email, websites and other computer-based methods of communication are readily available tools for carrying out hypocrisy induction on a mass scale. Therefore, the computer-based manipulation was designed to begin to address the question of whether or not induced hypocrisy would be effective in this format.

The computer-based manipulation was carried out in the exact same manner as the lab-based manipulation. The processes that take place for dissonance creation and resolution are intrapersonal. Though it is possible that interactions with others could impact these processes, the research assistant will be interacting with the participant only to guide him/her through the experimental process. There is no evidence showing that the relatively neutral presence of a research assistant affects the dissonance processes.
Therefore, it is expected that the results of the traditional and computer-based induced hypocrisy manipulations will be the same.

Although the positive behavioral outcomes of many of the induced hypocrisy studies suggest that there may be potential for the method as a tool of social influence, much more information is needed on when positive outcomes are most probable. One potential avenue for improving our understanding of when induced hypocrisy would be helpful and when it would be harmful is a more nuanced understanding of the role of initial attitudes in the dissonance resolution process. In other words, how do the attitudes people have prior to the manipulation effect how they respond to hypocrisy induction? The standard for “pro-attitudinal” is one of the major gaps in hypocrisy literature. Attitudes are generally treated as dichotomous, either favorable or not. A favorable attitude will lead to dissonance that needs to be resolved, an unfavorable attitude will not. In many instances, the context of the manipulation was so noncontroversial that favorable attitudes were assumed (Aronson, Fried & Stone, 1995; Stone et al., 1997), based on a simple “Are you in favor of . . .?” inquiry (Dickerson et al., 1992), or based on minimal formative research of the general population (Fried & Aronson, 1995). Very few studies utilized pre- post- attitudinal measures, and even in these cases the measures were used to examine whether dissonance was being resolved through change in attitude (McKimmie et al., 2003), not how pre-attitudinal measures related to dissonance resolution outcomes. This oversight seems significant in light of the many studies examining the relationship of various dimensions of attitude to behavior. Though studies investigating the attitude-behavior link certainly dispel the suggestion that favorable attitudes directly lead to
behavior change (Wicker, 1969), there is evidence of a relationship, particularly when addressing specific attitudes and behaviors (Ajzen and Fishbein, 1977).

Using a different experimental method, Sherman and Gorkin (1980) conducted research on dissonance and hypocrisy, specifically considering the outcomes when the dissonance involved what they called “central attitudes,” or attitudes that were important to self-concept. Their findings provide insight into how initial attitudes may impact the outcomes when hypocrisy is induced. Participants in their study who ranked high on a feminism scale were more likely to have outcomes supporting their initial attitude toward feminism after freely choosing to engage in counter-attitudinal behavior. Generally, participants were pro-feminism, though in varying degree. Induced hypocrisy literature would suggest that, so long as participants had a favorable attitude toward feminism, then experiencing hypocrisy would lead to dissonance which would then need to be resolved. Indeed, participants in the Sherman and Gorkin study who experienced hypocrisy (created through a failure to solve a sex-role problem) demonstrated that those who scored higher on the feminism scale were more likely than those who scored low to resolve their dissonance by bolstering their initial attitude (demonstrated by rating a decision to hire a male job candidate over a similarly qualified female candidate as less justified).

As I stated earlier, Sherman and Gorkin attribute this pattern not only to these participants having a particularly positive attitude toward feminism but also to the fact that attitudes regarding sex-roles are an important part of the self-concept. This assertion is especially interesting for contexts in which positive attitudes may or may not be central
to a person’s self-concept, as is the case with environmental issues. The moderating role of attitude importance, as applied generally to environmental issues, will be used to investigate the relationship between initial attitudes and outcomes. Though attitude importance was not the standard used by Sherman and Gorkin, it is “an individual’s subjective perception of the degree of personal importance he or she attaches to a particular attitude,” (Krosnick, Berent & Boninger, 1994, p. 392), and is stable over time (Krosnick, 1986 as cited in Krosnick, 1989; Bizer & Krosnick, 2001), i.e. resistant to change, just as Sherman and Gorkin’s “central attitudes.” Therefore, it is expected that those who view their pro-environmental attitudes as more important will demonstrate more positive outcomes than those who indicate environmental issues are less important to them.

In addition to attitudinal consequences of hypocrisy induction, this study considers the outcomes with respect to self-efficacy and personal control beliefs. External self-justification refers to the excuses associated with factors external to the acting individual that people use to justify not engaging in a behavior. Holland, Meertens & Van Vugt (2002) note several categories of excuses associated with external self-justification including lack of personal control, social pressure, and displacement of personal responsibility. Lack of personal control would take the form of statements such as, “I don’t have time to recycle,” or “Recycling is inconvenient.” Dissonance research suggests that the existence of external justifications for engaging in a counter-attitudinal behavior (Festinger and Carlsmith, 1959) can affect the amount of dissonance aroused.
The impact of external self-justification on dissonance arousal suggests that it could also serve as a mechanism for dissonance reduction. If I believe that recycling is relatively easy, but I then experience dissonance relating to my failure to recycle, I may very well decide that recycling isn’t all that easy. This cognitive change will serve to reduce my dissonance. As always, this cognitive change is most likely when my beliefs regarding the ease of recycling are not resistant to change. An increase in self-justification, measured as excuse-making, has been demonstrated in response to induced hypocrisy created through an on-line questionnaire (Dossett & Hayes, 2009), supporting the idea that this process can serve as an important factor in dissonance resolution.

There are indications that an increase in external self-justification is especially likely in contexts similar to recycling. Holland et al. (2002) reference Kelman and Baron’s (1974) distinction between moral dissonance and hedonistic dissonance, and show support for the proposition that people rely more on external self-justification in moral dissonance situations. Moral dissonance involves situations in which the negative consequences of one’s actions are external (e.g., recycling) whereas hedonistic dissonance involves situations in which one’s actions result in negative consequences for oneself (e.g., not wearing a seat belt). Recycling, which is the context used for hypocrisy induction in this experiment is a situation in which the negative consequences would be perceived as primarily external. Therefore, hypocrisy associated with recycling would be a situation in which self-justification is likely to play a significant role, and it is expected that perceived control will decrease when dissonance is aroused.
Beliefs of self-efficacy, like perceptions of behavioral control, are also potentially subject to alterations in the context of dissonance. Self-efficacy, as described by Bandura (1977) is “the conviction that one can successfully execute the behavior to achieve the outcome” (p. 193). However, Bandura (1977) also states that, “Weak (self-efficacy) expectations are easily extinguishable by disconfirming experiences” (p. 194). This assertion implies that the act of inducing hypocrisy may actually decrease a person’s self-efficacy, especially if the efficacy is not somehow reinforced. For example, I may be confident in my ability to recycle. Then, I become aware of a disconnect between my recycling attitudes and my recycling behaviors. If my confidence in my ability to recycle is weak, I may alter that belief as a means of reducing the dissonance I am experiencing. An inability (or doubt about my ability) to recycle provides a cognition in favor of my attitude inconsistent behavior. Therefore, it is also expected that dissonance will also have a negative impact on self-efficacy.

This experiment considered behavioral, attitudinal and efficacy outcomes of inducing hypocrisy in both a traditional, lab-based format and a computer-based format. Parallel lab and computer-based experimental procedures were designed to explore the potential use of induced hypocrisy for social influence carried out via computer. The procedures are based on manipulations completed by Fried and Aronson (1995) and Fried (1998), both of which focused on dissonance in the context of recycling.
Chapter 2: Method

Both the traditional and computer-based formats included a hypocrisy and a no hypocrisy condition, resulting in a 2 (traditional lab-based manipulation, computer-based manipulation) x 2 (no hypocrisy, induced hypocrisy) factorial design. All participants took part in an attitude salience manipulation, while only those in the hypocrisy condition were asked to engage in a behavioral salience manipulation. Participants were randomly assigned to condition.

The primary difference between the traditional, lab-based and computer-based format is the medium through which hypocrisy (or no hypocrisy) was induced. In the traditional, lab-based condition, a research assistant was present and explained the manipulations, whereas in the computer-based condition the manipulations were administered and directions were delivered via a computer. The manipulations and the directions were the same regardless of method of delivery. All questionnaires not associated directly with the hypocrisy manipulations (salience of attitude and behavior) were answered using a computer in order to increase consistency across conditions.

Participants

Recruitment was conducted at The Ohio State University, through general education curriculum (GEC) courses and courses offered by the School of Communication during the 2009 Spring Quarter. Participants recruited through the School of Communication courses received extra credit for participation, while
participants recruited through GEC courses received a $10, pre-charged card accepted by vendors on and around campus. All participants were entered in a drawing to win one of two $50 gift certificates to a major chain retail store.

Data collection began on April 6 and ended May 14, 2009. Although 171 students consented to participate in the study, final analyses were conducted on 148 of the participants unless otherwise noted (traditional, no hypocrisy: \( n = 37 \); computer, no hypocrisy: \( n = 41 \); traditional, hypocrisy: \( n = 31 \); computer, hypocrisy: \( n = 39 \)). Nine participants were eliminated for general procedural problems (e.g., issues with the lab or office area, not following directions). The reasons for eliminating the other fourteen participants are discussed below.

Procedures

Participants were run individually. Initially, they reported to an office where they signed into the study. The research assistant then accompanied the participant to a lab space set up with a computer, a table, and a couple chairs. As a cover story for the pre-test, the research assistant explained that, with the budget being especially tight for the upcoming fiscal year, administrators wanted information on which discretionary areas of spending were most important to students to help inform their budget decisions. Therefore, the Office of Student Affairs developed a short survey to investigate student preferences, and the research team was asked to administer this survey to all participants before they engaged in the “main” study. To increase believability of the disconnect between the pre-test and the study that followed, all participants were asked to sign a consent form for the pre-test. After providing the cover story, obtaining consent, and
getting the participant set up on the computer to take the pre-test, the research assistant left the room.

Once the participant completed the pre-test, they retrieved the research assistant out of the office to which they had originally reported. The research assistant returned with the participant to the lab space, and explained the “main” study. Participants were told that the Department of Facilities Operations and Development (FOD), which is in charge of campus recycling, was working with the School of Communication to create a campaign promoting recycling on campus, and that the research project in which the participants were about to engage was designed to inform the development of this campaign and gather other information that could be used to help FOD improve the campus recycling program. Participants were reminded that they did not need to do or say anything not in keeping with their personal beliefs, and that they would receive full credit for participating, even if they chose to leave at any point during the process. Participants were then asked to sign the letter of consent for this “second” study. To increase the believability of the disconnect between this study and the first questionnaire the participants completed, the consent for the “main” study was printed on a different color paper than the consent for the pre-test.

At this point, participants were randomly assigned to either the computer-based or traditional, lab-based format. Using a random number generator, numbered manila envelopes had been stuffed with the appropriate materials and stacked in the labs. The research assistant selected the top envelope, removed the participant consent form from
the envelope, determined the participant’s condition (traditional or computer), and continued accordingly.

Depending on condition, the research assistant either handed the participant a sheet of paper and explained the attitude salience (i.e., advocacy) task (traditional, lab-based format) or directed the participant to a computer and left the room (computer-based format). Participants in the computer-based condition did not interact with the research assistant again until after they finished the post-manipulation questionnaire. In the traditional, lab-based condition, consistent with past research (Fried & Aronson, 1995; Fried, 1998), the research assistant stayed with participants as they wrote the advocacy statement, though they did not stay in the room while the participant was completing any of the other tasks.

Random assignment to the no hypocrisy or hypocrisy condition for participants assigned to the computer condition was determined by the computer-based survey program. The computer program simply introduced the (no) hypocrisy task immediately after the participant submitted his/her advocacy statement.

For those in the traditional, lab-based condition, a smaller manila envelope stuffed inside the main manila envelope contained the randomly distributed materials relevant to the no hypocrisy or hypocrisy condition. After the participant had completed the advocacy task, the research assistant handed him/her this smaller envelope while instructing the participant to complete the task inside the envelope. Participants were further instructed that, once they had completed the task, they were to replace the task in the envelope and put the envelope in a marked box within the lab. After providing these
directions, the research assistant left the room, telling the participant to retrieve him/her from the office when s/he was done.

The research assistant leaving at this point served two purposes. First, it allowed him/her to remain blind to condition with respect to the hypocrisy condition. Second, Fried (1998) found that participants identified with their hypocritical behavior had a more negative attitude toward the behavior and were less likely to engage in the target behavior after the manipulation. The research assistant leaving during the behavioral salience manipulation helped ensure that the participant did not feel like he/she would be identified with his/her hypocrisy.

The post-manipulation questionnaire followed the (no) hypocrisy task. Those in the computer-based condition were simply directed to this questionnaire immediately after they submitted their responses to the (no) hypocrisy tasks. Participants in the traditional lab-based condition had to retrieve the research assistant from the office. The research assistant then accompanied the participant back to the lab one last time to set him/her up on a computer to complete the post-manipulation questionnaire. The research assistant left the room while the participant completed the questionnaire.

Once participants had completed the post-manipulation questionnaire, they were partially debriefed. This process included asking a series of questions to determine whether or not they were suspicious about the link between the initial questionnaire and main study, the behavioral measures and/or the overall purpose of the investigation. Eleven participants were removed from the final data analysis for expressing suspicions that may have influenced their responses or behavior. During the debriefing, participants
were told about: (1) the relationship of the pre-test to the main study; (2) the fictional nature of the cover story for the initial questionnaire; (3) research objectives relating to the differences between those who participated on a computer and those who interacted with the research assistant, and; (4) the true nature of FOD’s interest in the study. A full debriefing was emailed to participants after the long-term behavioral measure was administered.

*Attitude salience (advocacy).* To make the participants’ positive attitude toward recycling both salient and public, or at least potentially public, they were asked to write a two part statement. For the first part of the statement, they were asked to write about why they thought recycling was important. For the second part of the statement, participants were asked to invite their fellow Buckeyes to join them in their recycling efforts. Participants were instructed that both sections of the statement should be one to three sentences long. It was emphasized that the statements participants write may be used in the campus recycling campaign to help persuade other students to recycle, and that their names would be associated with the statement they write should it be selected for use. To ensure that research participants were freely choosing to make an advocacy statement, the directions emphasized that the statements should reflect the participants’ true personal beliefs and that there were not consequences if they chose to terminate their participation in the project at any point in the process. One participant was eliminated from data analysis because he did not write a statement advocating recycling.

The advocacy form included a separate section for each of the two message components. The directions for the message as a whole was written at the top of the
form, and directions for each component appeared directly above a box in which the message component was to be written. There was a space in which participants were instructed to put their name. The computer-based form and the print form were designed to look as similar as possible. (See Appendix A.) Those in the traditional, lab-based condition wrote their statement using pen and paper. The research assistant went over the directions orally with participants in this condition. Participants in the computer-based condition simply typed their responses into the form provided.

Behavioral salience (hypocrisy). Immediately after writing the advocacy statement, participants completed the manipulation for the (no) hypocrisy condition. The participants assigned to the hypocrisy condition engaged in a manipulation designed to increase the salience of behaviors inconsistent with the advocacy statement they just made. In other words, they were asked to recall instances in which they failed to recycle. Participants were told that the FOD was in the process of trying to understand waste disposal behaviors so that they could improve the recycling opportunities offered on campus. Participants were asked to recall specific instances when they have failed to recycle by listing what recyclable items they have thrown away on campus in the past two weeks, and where they were when they did so. Overall, participants listed an average of 4.061 items ($SD = 2.190$). The number of non-recycled items listed was also considered for the traditional, lab-based and computer-based formats individually (traditional: $M = 4.548$, $SD = 2.580$; computer: $M = 3.629$, $SD = 1.699$). An independent samples t-test (equal variances not assumed) showed that this difference in means
between the number of items listed in the two formats was not significant \( t(50.858) = 1.687, p > .05 \).

Participants were also asked to estimate the percentage of time they throw away common recyclable items such as such as plastic soda or water bottles, aluminum soda cans, and white paper. They were asked to provide these estimates for their disposal behaviors both at home and on campus. Responses for all items ranged from 0 to 100%. On average, participants threw away recyclables 50.334\% \( (SD = 38.183) \) of the time when at home and 36.471\% \( (SD = 30.844) \) of the time when on campus.

In order to avoid the negative consequences of people being identified with their hypocritical behaviors (Fried, 1998) participants were assured that they would not be identified with their responses. One participant in the hypocrisy condition was eliminated from the final analyses because he skipped all items pertaining to his on campus recycling behavior. (See Appendix B for a copy of the behavioral salience forms.)

Participants in the no hypocrisy condition were asked to engage in an activity that took approximately the same time period, while keeping them mindful of recycling without referring to their own behavior. Like Fried & Aronson (1995) and Fried (1998), a recycling related word search was created for participants to complete under the pretext of testing them for accuracy and difficulty. They were told that FOD was considering them as an activity for children who attend various camps held on campus over the summer.
One participant was eliminated from final data analysis because their (no)
hypocrisy condition could not be determined. S/he did not respond to any of the
behavioral items, nor did s/he acknowledge finding any words in the word search.

*Pre-Manipulation Measures*

Participants started off by completing a short questionnaire they were told was
being administered on behalf of the Office of Student Affairs for the purpose of gathering
student input on discretionary areas of spending in the upcoming budget. This instrument
was designed to gain insight into recycling relevant attitudes (i.e., initial attitudes)
without letting participants know that the focus of the study was recycling.

Similar in style to Rokeach Value Scales (Rokeach & Ball-Rokeach, 1989),
participants were first asked to prioritize the following seven areas from their highest
priority (1) to their lowest priority (7): expanding environmental initiatives (energy
conservation, recycling, water conservation, etc.); improving facilities (classrooms,
libraries, residence halls, parking lots & structures, and so on); expanding support of
socially responsible labor practices; improving student services (Student Health, Student
Union, Counseling & Consultation, campus bus routes, and so on); supporting faculty
development (professional development for teaching, financially support research, etc);
investing in the conversion to a semester system; expanding and improving web-related
resources (improving wireless access, improving email system, making websites more
user-friendly, etc.). The areas were presented in randomized order. Rankings were
reverse coded for analysis such that a higher numeric value corresponded to the item
being a higher (more important) priority ($M = 4.015$, $SD = 1.780$).
After participants had submitted their ranked list, they were asked more specifically about their attitude on each of the seven budget areas, with the areas being presented in random order. Responses to the environmental issues item were the only ones relevant to this study, and were therefore the only ones analyzed. For each budget area, participants were asked to report their attitude on a 7-point scale ranging from extremely anti/opposed (1) to extremely pro/in favor (7) ($M = 5.61$, $SD = 1.487$), and then they were immediately asked to report how important that attitude is to them using a 7-point scale ranging from not at all important (1) to extremely important (7) ($M = 5.06$, $SD = 1.540$) (adapted from Krosnick, 1989).

These pre-manipulation measures also served as randomization checks. Considering the ranking task, analysis of variance revealed there was no significant difference in the average ranking given by participants in the four experimental conditions to the environmental issues budget item ($F(3, 127) = .664$, $p > .05$; $M_{traditional, no hypocrisy} = 4.088$, $M_{computer, no hypocrisy} = 3.657$, $M_{traditional, hypocrisy} = 4.143$, $M_{computer, hypocrisy} = 4.206$). However, analysis of the follow up items did reveal differences (anti/opposed, pro/in favor: $F(3, 144) = 3.183$, $p < .05$; $M_{traditional, no hypocrisy} = 5.189$, $M_{computer, no hypocrisy} = 5.488$, $M_{traditional, hypocrisy} = 6.258$, $M_{computer, hypocrisy} = 5.641$; attitude importance: $F(3, 144) = 4.031$, $p < .01$; $M_{traditional, no hypocrisy} = 4.513$, $M_{computer, no hypocrisy} = 4.878$, $M_{traditional, hypocrisy} = 5.709$, $M_{computer, hypocrisy} = 5.256$). Probing responses to these items using independent sample t-tests (equal variance not assumed) revealed that participants in the traditional, induced hypocrisy condition indicated they were significantly more pro/in favor of recycling than all of the other three experimental groups (traditional, no hypocrisy:...
\[ t(58.855) = -3.158, \ p < .005; \text{ computer, no hypocrisy: } t(69.324) = -2.645, \ p < .05; \]

\[ t(66.868) = 2.111, \ p < .05. \] Participants in this condition also reported higher attitude importance compared to those in either of the no hypocrisy conditions (traditional, no hypocrisy: \( t(61.254) = -3.226, \ p < .005; \text{ computer, no hypocrisy: } t(69.958) = -2.649, \ p < .01 \)). Additionally, those in the computer-based hypocrisy condition reported significantly higher attitude importance than those in the traditional, no hypocrisy condition (\( t(64.313) = -1.999, \ p < .05 \)).

Post-Manipulation Measures

A questionnaire was administered immediately following the manipulations. With the exception of the first measure, all items were randomly ordered.

Behavioral outcome, joining email list. At the beginning of the questionnaire, participants viewed the following paragraph on Students for Recycling:

Students for Recycling (SFR) is a student run organization dedicated to supporting recycling efforts at and around The Ohio State University by providing information on how, what, and why to recycle as well as hosting events to promote recycling, including the annual Dump & Run and OSU Recycles Day. SFR maintains an email list of students interested in recycling. This email list is used to notify students about changes to recycling policies and procedures on campus and in the student-dominated neighborhoods near campus. It is also used to solicit volunteers for recycling-related events on or near campus.

Would you like to be added to the Students for Recycling email list?
Yes, please.
No, thanks.

The 31.1% of participants that agreed to be added to the SFR email list were directed to another screen which requested their email address. Participants that selected “No, thanks” were directed to the next set of questions. All participants who responded “Yes, please” provided a legitimate email address.
**Attitude importance.** Post-manipulation attitude importance was measured with three items on a 7-point scale: how important recycling is to you personally (not at all important to extremely important); how deeply do you care about recycling (not at all to very deeply); and how concerned are you about recycling (not at all concerned to extremely concerned) (adapted from Krosnick, Berent and Boninger, 1994; Boninger, Krosnick & Berent, 1995). For analysis, these items were combined into a scale ($\alpha = .911, M = 5.110, SD = 1.216$). In the case of missing data, means were calculated using valid responses so long as the participant did not skip more than one item in the scale.

**Attitude certainty.** Attitude certainty was measured using three items on a 7-point scale.

- How certain are you about your attitude toward recycling? (not at all certain to very certain)
- How confident are you in your attitude toward recycling? (not at all confident to very confident)
- How sure are you about your attitude toward recycling? (not at all sure to very sure)

For analysis, these items were combined into a scale ($\alpha = .869, M = 5.696, SD = 1.007$). In the case of missing data, means were calculated using valid responses so long as the participant did not skip more than one item in the scale.

**Attitude extremity.** As in Study 1 from Downing, Judd and Brauer (1992), attitude extremity was measured using items on a 9-point, bipolar scale. The three attitude extremity items used in the post-manipulation questionnaire utilized the endpoints of bad-good, harmful-beneficial, and like-dislike. Deviations from the scale mid-point were calculated, so that extremity was measured on a five point scale ranging from 0 (no extremity) to 4 (maximum extremity). For analysis, these mean deviation scores were
combined into a scale ($\alpha = .902$, $M = 3.779$, $SD = .561$). In the case of missing data, means were calculated using valid responses so long as the participant did not skip more than one item in the scale.

*Self-efficacy and perceived behavioral control.* In a study on academic achievement intentions and behaviors Manstead and van Eekelen (1998) conducted factor analysis of six questions designed to tap into self-efficacy and perceived behavioral control. Their analysis revealed two distinct factors, with three items determined to measure self-efficacy beliefs and three to measure perceived behavioral control.

The self-efficacy measures used in this study were a modified version of the three items included in the Manstead and van Eekelen (1998) study: I am confident that I can recycle **ALL** of my recyclable waste over the next two weeks. (strongly disagree to strongly agree); I am certain that I can recycle **ALL** of my recyclable waste over the next two weeks. (strongly disagree to strongly agree); and Recycling **ALL** of my recyclable waste over the next two weeks will be (very difficult to very easy). All items had five response options.

Perceived behavioral control items from Manstead and van Eekelen (1998) were also adapted for use in this study: Whether or not I recycle **ALL** of my recyclable waste over the next two weeks is completely up to me (5-point scale ranging from strongly agree to strongly disagree); There is a lot I can do to ensure that I recycle **ALL** of my recyclable waste during the next two weeks (5-point scale ranging from strongly agree to strongly disagree); and How much control do you have over whether or not you recycle **ALL** of your recyclable waste during the next two weeks? (7-point semantic differential
with absolutely no control and complete control as anchors). Based on Ajzen & Madden (1986), the following three perceived behavioral control items were also utilized: For me to recycle during the next two weeks would be (5-point scale ranging from very easy to very difficult) (reverse coded); If I wanted to, I could easily recycle ALL of my recyclable waste during the next two weeks (5-point scale ranging from strongly disagree to strongly agree); The number of events outside my control that could prevent me from recycling ALL of my recyclable waste are (7-point semantic differential with numerous and few as the anchors).

A factor analysis with alpha extraction and oblique rotation was conducted, which resulted in a uni-dimensional factor structure for these items. Therefore, all nine items were compiled into a single scale ($\alpha = .916, M = 4.115, SD = .942$) for analysis. In the case of missing data, means were calculated using valid responses so long as the participant did not skip more than one item in the scale. This scale will be referred to as the self-efficacy scale from here on out.

**Behavioral estimations and behavioral willingness:** This study was designed to use both behavioral estimation items and behavioral willingness items. Behavioral estimation items tap into an individual’s perceived likelihood that he or she will engage in the behavior. Sheppard, Hartwick, and Warshaw (1998) distinguish behavioral estimations (Are you likely to do X?; Will you do X?) from behavioral intentions (Do you intend to do X?), pointing out instances where what one intends to do and what one expects to do may be different. They argue that in responding to behavioral estimation questions people consider a broader spectrum of factors that may influence their
behavior, and, through a meta-analysis, they demonstrated that expectations are a better predictor of performance. Additionally, Beck and Ajzen (1991) point out that behavioral expectation items are also less subject to responses motivated by social desirability than behavioral intention items. Inquiries about recycling behavior, particularly in the context of a study being done to promote campus recycling would certainly be subject to socially desirable responses. Therefore, traditional behavioral intention items were not used. Instead, the following behavioral estimation items were asked, all with 5-point scales ranging from strongly disagree to strongly agree: I think that I will recycle **less** in the future (reverse-coded); I will recycle **more** in the future; It is likely that I will recycle **more** in the future; It is probably that I will recycle **less** in the future (reverse-coded).

Behavioral willingness measures present different scenarios and inquire about the participant’s probability of recycling under such circumstances. Gibbons et al. (1998) propose the use of behavioral willingness in circumstances involving risky behaviors. Certainly, recycling is not a risky behavior. However, it does share a behavioral characteristic with risky behaviors that makes behavioral willingness a potentially important factor in predicting actual behavior. Namely, recycling behavior is often not a premeditated action; it is often determined by circumstance rather than rational choice or intention. Therefore, the questionnaire will include several behavioral willingness measures that present circumstances in which context would likely play a role in a person’s decision to recycle or not. The proposed behavioral willingness scenarios include:

- Imagine that you are on a long car trip going on vacation. You have consumed several beverages that came in recyclable containers. Please
indicate how willing you would be to hold on to the containers until you had the opportunity to recycle them.

- Imagine that you live in an apartment complex that does not offer recycling on site. Please indicate how willing you would be to collect your recyclables and drive them 5 miles to the nearest recycling drop box location.
- Imagine that you finished a beverage in a recyclable container during a class in building X, which does not have recycling bins. Your next class is in building Y, which is well stocked with recycling containers. Please indicate how willing you would be to take your empty beverage container with you to building Y in order to recycle it.

All response sets utilized a 7-point scale with the anchors not at all willing (1) and completely willing (7).

A factor analysis with alpha extraction and oblique rotation was conducted, which resulted in a uni-dimensional factor structure for these items. Therefore, all seven items were compiled into single scale ($\alpha = .779$, $M = 4.381$, $SD = .857$) for analysis. In the case of missing data, means were calculated using valid responses so long as the participant did not skip more than one item in the scale. While these items do not represent traditional behavioral intention items, this term will be used as a catch all for the combined behavioral estimations and behavioral willingness items for the rest of the paper.

Behavioral outcome, long term. Participants who signed up for the Students for Recycling email list received an email one week after their participation in the study. The email claimed to be from the Project Coordinator for Students for Recycling who was seeking volunteers to post flyers about the Scarlet, Grey & Green Recycling Drive. The email explained that volunteers would be asked to hang flyers on particular floors in particular buildings, and the Students for Recycling Project Coordinator would make an effort to assign volunteers to buildings near where volunteers have class or live. Flyers
would be mailed to the volunteers, and it would take approximately ten minutes per floor to hang the flyers. It was emphasized that Students for Recycling welcomes volunteers at any commitment level, even just one floor, though students should only volunteer based on time they were actually willing to volunteer. Students interested in participating were directed to a click a link which took them to a volunteer survey.

The online volunteer form thanked participants for their willingness to volunteer, and asked on how many floors the student was willing to hang flyers. Students were again reminded that it was estimated to take ten minutes per floor to hang flyers, and that flyers would be mailed to all students volunteers at the address they provide. The survey then requested that students list the campus buildings they frequently visit, including, though not limited to, buildings in which they have class and/or live. Last, students were asked to provide a mailing address so that Students for Recycling could mail them their flyers along with a map containing the information on where the flyers should go.

Only three participants responded to the call for volunteers, which was not enough data for analysis. Therefore, the long term behavioral measure is not discussed further.
Chapter 3: Results

All analyses were conducted using linear regression except when the outcome being considered was whether or not participants signed up for the Students for Recycling email list-serve. Because that outcome is categorical, those analyses were conducted using logistic regression. For analyses, both manipulations were dummy coded. Unless otherwise noted, the traditional, lab-based format was coded as 0, and the computer-based format was coded as 1. Similarly, the no hypocrisy condition was coded as 0, and the hypocrisy condition was coded as 1. An interaction variable was created, crossing the format condition with the hypocrisy condition. All reported coefficients are unstandardized.

A regression analysis run using only the two manipulation variables revealed that neither format nor induced hypocrisy had a partial effect on the probability that a participant would sign up for the Students for Recycling email list (format: $b = .144$, odds ratio $= 1.155$, $p > .05$; hypocrisy: $b = .026$, odds ratio $= 1.027$, $p > .05$), nor was the interaction significant when it was entered into the regression equation ($b = -.405$, odds ratio $= .667$, $p > .05$).

Similarly, neither manipulation had a significant partial effect on behavioral intentions (format: $b = .237$, $t(145) = 1.687$, $p > .05$; hypocrisy: $b = .121$, $t(145) = .862$, $p > .05$) when a regression analysis was conducted using only the two manipulations as variables. However, entering the interaction term into the regression equation revealed
that there was a significant interaction between the format and the hypocrisy manipulations \((b = - .892, t(144) = - 3.273, p < .005)\) such that the hypocrisy condition made a significant difference in the traditional lab-based condition \((b = .605, t(144) = 3.013, p < .005, M_{\text{no hypocrisy}} = 3.9749, M_{\text{hypocrisy}} = 4.5799)\), but not in the computer-based format \((b = - .288, t(144) = - 1.558, p > .05, M_{\text{no hypocrisy}} = 4.6318, M_{\text{hypocrisy}} = 4.3443)\). In other words, participants experiencing induced hypocrisy did report higher pro-recycling behavioral intentions compared to those who did not, but only in the traditional, lab-based condition only. (See figure 1).

In addition to considering behavioral outcomes, this study also examined the attitudinal and self- efficacy outcomes of the manipulations. The manipulations had no significant partial effect on self-efficacy \((\text{format: } b = .157, t(145) = 1.007, p > .05; \text{hypocrisy: } b = - .042, t(145) = - .207, p > .05)\), attitude certainty \((\text{format: } b = .098, t(145) = .586, p > .05; \text{hypocrisy: } b = .050, t(145) = .299, p > .05)\), attitude extremity \((\text{format: } b = - .046, t(145) = - .491, p > .05; \text{hypocrisy: } b = .005, t(145) = .050, p > .05)\) or post-manipulation attitude importance \((\text{format: } b = .175, t(145) = .877, p > .05; \text{hypocrisy: } b = .354, t(145) = 1.781, p > .05)\). When entering the interaction term into the regression equations, the interactions were also not significant for self-efficacy \((b = - .459, t(144) = - 1.475, p > .05)\), attitude certainty \((b = - .429, t(144) = - 1.283, p > .05)\), and attitude extremity \((b = - .255, t(144) = - 1.370, p > .05)\). However, there was a significant interaction for post-manipulation attitude importance \((b = - 1.135, t(144) = - 2.916, p < .005)\). Participants in the traditional, lab-based condition were more likely to express greater attitude importance when exposed to the hypocrisy manipulation as compared to
the no hypocrisy manipulation \((b = .970, t(144)= 3.383, p < .005, M_{\text{no hypocrisy}} = 4.568, M_{\text{hypocrisy}} = 5.538)\), though induced hypocrisy did not have a significant effect on attitude importance for participants in the computer-based condition \((b = - .165, t(144)= - .628, p > .05, M_{\text{no hypocrisy}} = 5.2764, M_{\text{hypocrisy}} = 5.1111)\). (See figure 2.)

This study also proposed that induced hypocrisy would be more effective for individuals who indicated that environmental issues were more important to them. The first measure of initial attitude importance I use is the priority ranking participants gave to “expanding environmental initiatives on campus” on a list of seven discretionary budget categories. Seventeen participants did not complete the ranking task, and were therefore excluded from these analyses, leaving a total of 131 participants for these analyses. The rankings were reverse coded so that a higher number indicated a higher priority. Coefficients are reported for the highest order interaction involving the budget rankings’ moderated effect. If that interaction was significant, coefficients for the hypocrisy manipulation are also reported.

Controlling for format and interaction of the experimental manipulations, analyses were conducted to test whether or not initial attitude importance moderated the effect of hypocrisy manipulation. The analyses of this two way interaction revealed no significant results. (See table 1.)

Since the experimental format significantly impacted the effects of the hypocrisy manipulation, it follows that the effect of the initial attitude importance moderator on hypocrisy may be different depending on experimental condition. In other words, attitude importance may only serve to moderate the effect of hypocrisy in one of the two
experimental formats as was indeed the case above. This moderation would not be revealed using the previous analysis. Therefore, three way interaction analyses were also conducted.

Initial attitude importance only served as a significant moderator of the interaction of the experimental manipulations for the post-manipulation attitude importance scale ($b = .687, t(123) = 3.980, p < .001$). All other results can be seen in table 2. Exploring this three-way interaction more closely revealed that, in the traditional, lab-based condition, the interaction between hypocrisy and initial attitude importance was significant ($b = -.476, t(123) = -3.979, p < .001$). However, initial attitude importance did not significantly moderate hypocrisy in the computer-based condition ($b = .211, t(123) = 1.694, p > .05$). (See figure 3.)

The moderating effect of initial attitude importance on hypocrisy induction in the traditional, lab-based condition was probed using the Johnson – Neyman technique as described in Hayes and Matthes (2009). This analysis revealed that the hypocrisy

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1 Hayes and Matthes (2009) discuss using the Johnson-Neyman approach with a three way interaction to determine the range of the moderator scale in which a two way interaction is significant. For this analysis, I used the Johnson-Neyman technique to probe the interaction of two of the variables within the three way interaction. The following regression model is used in the Hayes and Matthes paper to illustrate how to find a moderator’s region of significance for a two-way interaction. I will use it to explain how I modified their analysis so that I could probe a two way interaction that is part of a significant three way interaction:

$$\hat{Y} = a + b_1 F + b_2 M + b_3 Z + b_4 (M \times Z) + b_5 (F \times Z) + b_6 (M \times F) + b_7 (M \times F \times Z)$$

In this model, $b_4$ represents the two way interaction of interest. For this paper, this would be the interaction between initial attitude importance (M) and hypocrisy (F). The three way interaction indicates how the effect of F varies as a function of M across different levels of Z. In this case, Z is dichotomous; it represents the format in which the manipulations were carried out. The traditional, lab-based condition is coded as 0 and the computer-based condition is coded as 1. Therefore, all terms including the Z variable are 0 in the traditional, lab-based condition. (Condition is simply recoded to explore the two way interaction in the computer-based condition.) The model is therefore simplified to:

$$\hat{Y} = a + b_1 F + b_2 M + b_3 (F \times Z) + b_6 (M \times F)$$

which can be probed like the other two-way interaction discussed in their paper.
manipulation was significant when initial attitude importance was under 4.818 down to the scale minimum of 1. For initial attitude importance above 4.818, the effect of induced hypocrisy no longer significantly affected attitude importance as measured after the manipulations. (See figure 4.)

A second moderator was also considered. In the pre-test, participants reported on their attitude about “expanding environmental initiatives on campus” using a 7-point scale ranging from not at all important to extremely important. Responses to this attitude importance item were considered as a moderator of the effect of the hypocrisy manipulation for the 115 participants who reported a “pro” attitude toward the environmental issues budget item. As with the first attitude importance moderator tested, analyses were conducted to test whether or not responses to this attitude importance item moderated the effect of the hypocrisy manipulation while controlling for format and interaction of the experimental manipulations. The analyses of this two-way interaction revealed no significant results. (See table 3.) Three-way interaction analyses were also conducted to explore whether the effect of the attitude importance on hypocrisy was different depending on experimental condition. However, this moderator was not part of any significant three way interactions. (See table 4.)
Chapter 4: Discussion

Past research has demonstrated that inducing hypocrisy can lead to targeted behavioral intentions or behaviors consonant with a favorable attitude (Aronson, Fried & Stone, 1991; Stone et al., 1994; Stone et al., 1997; Dickerson et al., 1992; Fried & Aronson, 1995; Fried, 1998; Fointiat, 2004). However, the implications of this past research for mass persuasion are unclear. One of the purposes of this study was to compare the effect of hypocrisy induction in a traditional, lab-based format versus a computer-based format as a way of exploring the potential of hypocrisy induction as means of social influence on a mass level.

Participants who experienced induced hypocrisy did report greater behavioral intentions, a result in keeping with much of the previously published research. However, the behavioral intention effect of induced hypocrisy was limited to the traditional, lab-based format of the study; the induction of hypocrisy had no effect on participants who experienced the manipulation in a computer-based format. This result could be due to the differing effect of hypocrisy induction in the traditional versus computer-based formats. Alternatively, this finding could simply reflect the fact that participants in the traditional, induced hypocrisy condition seemed to hold more positive initial attitudes towards recycling, which they viewed as more important, when compared to participants in the other experimental conditions.
Furthermore, even in the traditional condition, this study did not demonstrate increased behavior consonant with positive attitudes toward recycling. This disconnect with previous research could be related to the behavioral measure selected, signing up for the Students for Recycling email list, which may not have served as a satisfactory behavior for directly reducing dissonance related to not recycling.

This study also considered non-behavioral means of dissonance reduction, specifically changes in attitude and changes in self-efficacy. Changes in attitude and self-efficacy were both considered potential paths for dissonance resolution. While results do not suggest that the manipulation affected self-efficacy beliefs, attitude confidence, or attitude extremity, participants who experienced induced hypocrisy did reported higher post-manipulation attitude importance. Once again, however, hypocrisy effects were limited to the traditional, lab-based format, and it is impossible to determine if these results are due to the manipulation or to the difference in initial attitude that participants in the traditional, induced hypocrisy condition brought to the experiment.

Importantly, the attitude change that did result from induced hypocrisy was in the opposite direction of what was expected. Generally, attitude change in the context of induced hypocrisy is negative (Fried, 1998; McKimmie et al, 2003) as dissonance, in the context of hypocrisy, can be directly resolved by adopting behavior consonant with a positive attitude or changing an attitude to better match actual behavior. (e.g. I didn’t recycling, so my attitude about recycling must not be that positive.) Indeed, regardless of the paradigm used, dissonance research focuses on bringing attitudes and behaviors in line (Festinger, 1957; Festinger & Carlsmith, 1959; Harmon-Jones, 2002) This raises the
question, how do the positive changes in attitude importance brought about by the hypocrisy manipulation in this study fit into the dissonance process? One possible explanation is that attitudinal, not just behavioral, outcomes can serve to bolster attitudes that are important to a person’s self-concept when they are threatened. If that is the case, then these positive changes in attitude should be more likely for those to whom recycling is central to their self-concept.

While asking participants to prioritize “expanding environmental initiatives on campus” as part of a list of seven different campus budget areas is not a direct measure of the how important recycling is to a person’s self-concept, it is a reasonable proxy. Recycling is generally viewed as an environmental action. Therefore, ranking environmental issues as a high priority as compared to six other potential budget categories can logically be interpreted to mean that environmental issues are more central to that individual’s self-concept compared to those who give it a lower ranking.

Analysis using the environmental budget ranking as moderator, however, revealed the opposite of what was expected; participants who indicated the environmental issues budget area was a lower priority were more likely to respond to hypocrisy induction with positive attitudinal (importance) outcomes. These results could be due to the more generalized nature of the ranking task (environmental issues versus recycling). Admittedly, this study attempted to get at whether or not the issue at hand was central to a person’s self-concept differently than did Sherman and Gorkin (1980) who used a feminism scale. However, it seems unlikely that results would completely reverse if, instead of using a ranking task, I had employed a measure like the New Ecological
Paradigm (Dunlap, Van Liere, Mertig, & Jones, 2000). While the moderating role of the budget ranking does not correspond with Sherman and Gorkin’s (1980) findings, it does support the idea that how people view an issue prior to experiencing hypocrisy induction affects how they respond. Once again, however, hypocrisy only had a significant effect on outcomes within a range of the environmental budget ranking for participants in the traditional, lab-based condition.

Though it is not clear why induced hypocrisy leads to different outcomes depending on the format used to induce it, it is clear that this factor makes a difference. Hypocrisy induction was not effective in the computer-based condition, at least on any dimension measured in this study.

One possible reason for this difference in effectiveness of the manipulation may be the extent to which participants in the traditional, lab-based format felt that their advocacy statements were a public commitment compared to those in the computer-based condition. Though there is induced hypocrisy research that suggests public commitment is not a necessary condition (McKimmie et al. 2003; Warlop, Yzerbyt, & Corneille, 2004), it is generally considered an essential component of the manipulation. Writing an advocacy statement with someone else in the room may drive home the point of the statement being public more effectively than submitting an advocacy statement by computer. This difference may have been further exacerbated if there was doubt in participants’ minds about Facilities Operations and Development using the statements for use in a campus-wide campaign. It is also possible that those in the computer-based
condition experienced this doubt about the use of the statements at a higher level than those in the traditional, lab-based condition.

In sum, while this study did demonstrate positive outcomes for hypocrisy induction, these outcomes were limited to participants in the traditional, lab-based format. Changing the format by which the hypocrisy induction takes place renders the process ineffective; hypocrisy induction administered by computer led to null results. Additionally, consideration of the environmental issues budget ranking as a moderator of hypocrisy induction demonstrates that people’s initial attitudes on the topic effects how they respond to the manipulation. In this study, hypocrisy induction was more effective for those who felt less strongly about environmental issues, at least compared to other issues included in the budget ranking task, though the effects were limited to participants in the traditional, lab-based condition.

The findings of this experiment coupled with other research demonstrating the fickleness of the dissonance resolution process in the context of induced hypocrisy, suggests that great caution should be taken when employing induced hypocrisy as a persuasive method. Specifically, this study suggests that it would not be prudent to employ induced hypocrisy as a computer-mediated persuasive tool. To understand exactly what leads to the difference in induced hypocrisy outcomes in the traditional, lab-based format compared to the computer-based format and how initial attitudes affect responses to hypocrisy induction will require additional research.
References


Appendix A: Attitude Salience Form for the Traditional, Lab-Based Condition

Directions: We are asking that students help us create messages encouraging their fellow Buckeyes to recycle. These messages should have two components. 1. A statement about why recycling is important. 2. An invitation for other students to join you in your recycling efforts. Both sections of the message should be about one to three sentences long. **If we select your message as one that we would like to use, then your name will be included with the statement whenever it appears as part of the campaign. Therefore, these statements should reflect your true personal beliefs.** There are no consequences for terminating your participation in this study at any point, so please do NOT make any statements with which you do not fully agree.

Your Name: ____________________________________________________________

Message:

<table>
<thead>
<tr>
<th>Part 1. Tell us why you think recycling is important in one to three sentences.</th>
</tr>
</thead>
</table>

<table>
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<tr>
<th>Part 2. Make a statement encouraging your fellow Buckeyes to join you in your efforts to recycle.</th>
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</thead>
</table>
Appendix B: Behavioral Salience Form for Traditional Lab-Based Condition.

Directions: Facilities Operations and Development is in the process of trying to understand waste disposal behaviors so that they can improve the recycling opportunities they offer here on campus. Please try to think of all of times in the past two weeks when you failed to recycle a recyclable item while on campus. Tell us what the item was and where you were when you threw it away (e.g. aluminum soda can outside the Central Classrooms building). List as many items as you can remember. Your responses are anonymous, so please do not put your name or any identifying information on this sheet of paper.

<table>
<thead>
<tr>
<th>Type of recyclable item you threw away</th>
<th>Location of disposal</th>
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When you are done, move on to the next page.
Directions: Facilities Operations and Development would like to find out a bit more about OSU students’ overall recycling behaviors. Please complete the form below. If you do not use the item indicated, put NA (for not applicable) in the blank provided. Again, your responses are anonymous.

When you dispose of the following types of recyclable items, what percentage do you throw away in trash destined for a landfill?

<table>
<thead>
<tr>
<th>Type of recyclable</th>
<th>% that you throw away</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>on campus</td>
</tr>
<tr>
<td>Aluminum (soda cans)</td>
<td></td>
</tr>
<tr>
<td>Plastic (milk jugs, soda or water bottles)</td>
<td></td>
</tr>
<tr>
<td>Glass (jars, bottles)</td>
<td></td>
</tr>
<tr>
<td>White paper</td>
<td></td>
</tr>
<tr>
<td>Newspaper</td>
<td></td>
</tr>
<tr>
<td>Corrugated cardboard (heavy boxes)</td>
<td></td>
</tr>
<tr>
<td>Single ply cardboard (cereal boxes, etc.)</td>
<td></td>
</tr>
<tr>
<td>Electronics</td>
<td></td>
</tr>
</tbody>
</table>

When you are finished, place the papers back in the envelope, and place the envelope in the box. Tell the lab assistant when you are done.
Table 1. Attitude Importance (Budget Ranking) Moderation of Hypocrisy Induction

Linear regression:

<table>
<thead>
<tr>
<th></th>
<th>$b$</th>
<th>$t(123)$</th>
</tr>
</thead>
<tbody>
<tr>
<td>self efficacy</td>
<td>-0.107</td>
<td>-1.116</td>
</tr>
<tr>
<td>attitude importance</td>
<td>-0.136</td>
<td>-1.477</td>
</tr>
<tr>
<td>attitude certainty</td>
<td>0.112</td>
<td>1.214</td>
</tr>
<tr>
<td>attitude extremity</td>
<td>-0.006</td>
<td>-0.109</td>
</tr>
<tr>
<td>behavioral intentions</td>
<td>-0.076</td>
<td>-1.053</td>
</tr>
</tbody>
</table>

Logistic regression:

<table>
<thead>
<tr>
<th></th>
<th>$b$</th>
<th>odds ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFR email list</td>
<td>-0.289</td>
<td>0.749</td>
</tr>
</tbody>
</table>
Table 2. Three Way Interaction with the Attitude Importance (Budget Ranking) Moderating the Interaction between the Experimental Manipulations

Linear regression:

<table>
<thead>
<tr>
<th></th>
<th>$b$</th>
<th>$t(123)$</th>
</tr>
</thead>
<tbody>
<tr>
<td>self efficacy</td>
<td>-0.007</td>
<td>-0.035</td>
</tr>
<tr>
<td>attitude certainty</td>
<td>0.011</td>
<td>0.060</td>
</tr>
<tr>
<td>attitude extremity</td>
<td>0.250</td>
<td>2.234</td>
</tr>
<tr>
<td>behavioral intentions</td>
<td>0.123</td>
<td>0.846</td>
</tr>
</tbody>
</table>

Logistic regression:

<table>
<thead>
<tr>
<th></th>
<th>$b$</th>
<th>odds ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFR email list</td>
<td>0.438</td>
<td>1.550</td>
</tr>
</tbody>
</table>
Table 3. Non-Significant Results for Initial Attitude Importance Moderating the Effects of Hypocrisy Induction

<table>
<thead>
<tr>
<th></th>
<th>$b$</th>
<th>$t(123)$</th>
</tr>
</thead>
<tbody>
<tr>
<td>self efficacy</td>
<td>-0.089</td>
<td>-0.794</td>
</tr>
<tr>
<td>attitude importance</td>
<td>-0.015</td>
<td>-0.136</td>
</tr>
<tr>
<td>attitude certainty</td>
<td>0.115</td>
<td>1.075</td>
</tr>
<tr>
<td>attitude extremity</td>
<td>0.047</td>
<td>0.744</td>
</tr>
<tr>
<td>behavioral intentions</td>
<td>-0.034</td>
<td>-0.411</td>
</tr>
</tbody>
</table>

Logistic regression:

<table>
<thead>
<tr>
<th></th>
<th>$b$</th>
<th>odds ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFR email list</td>
<td>-0.457</td>
<td>0.633</td>
</tr>
</tbody>
</table>
Table 4. Three Way Interaction with Attitude Importance (Single Item) Moderating the Interaction between the Experimental Manipulations

Linear regression:

<table>
<thead>
<tr>
<th></th>
<th>$b$</th>
<th>$t(123)$</th>
</tr>
</thead>
<tbody>
<tr>
<td>self efficacy</td>
<td>0.416</td>
<td>1.240</td>
</tr>
<tr>
<td>attitude importance</td>
<td>-0.027</td>
<td>-0.098</td>
</tr>
<tr>
<td>attitude certainty</td>
<td>-0.313</td>
<td>-1.113</td>
</tr>
<tr>
<td>attitude extremity</td>
<td>0.004</td>
<td>0.036</td>
</tr>
<tr>
<td>behavioral intentions</td>
<td>-0.079</td>
<td>-0.341</td>
</tr>
</tbody>
</table>

Logistic regression:

<table>
<thead>
<tr>
<th></th>
<th>odds</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFR email list</td>
<td>0.116</td>
</tr>
</tbody>
</table>
Figure 1: Behavioral Intention Consequences of Hypocrisy Manipulations

*significant difference
Figure 2: Attitude Importance Consequences of Hypocrisy Manipulations
Figure 3: Post-Manipulation Attitude Importance Outcomes of Initial Attitude Importance Interacting with Hypocrisy in the Computer-Based Condition

*significant difference
Figure 4: Post-Manipulation Attitude Importance Outcomes of Initial Attitude Importance Interacting with Hypocrisy in the Traditional, Lab-Based