**Method**

**Participants**

Data collection took place between Fall 2022 and Summer 2023. Participants were recruited from the University of Oregon Psychology/Linguistics Human Subjects Pool and the general University of Oregon student population. Participants were recruited from the general UO student population using flyers posted inside buildings on the University of Oregon campus. The study took approximately 20-25 minutes for participants to complete. Participants recruited from the Psychology/Linguistics Human Subjects Pool were compensated 0.5 SONA credits for their participation, and students recruited from the general UO population were compensated $5. The current study’s methods were approved by the University of Oregon’s Research Compliance Services which has the mission of protecting the rights of participants in human subjects research.

The study took place completely online using the Qualtrics survey platform. After signing up to participate, participants read an informed consent document that described the types of questionnaires the participant should anticipate completing, the estimated time it would take to complete the study, the compensation for participating, and the complete voluntary nature of participating in the study. Because fictional normative information was used to create the perception of novel consumption behaviors, participants were also informed that they would be unaware of or misled regarding the nature or purposes of the research, but that an in-depth explanation of the study’s purpose and where deception occurred would follow their completion of the study. Participants were invited to continue the study if they agreed with the statements in the informed consent document and were at least 18 years old.

The final sample size (*n* >= 765) was determined using an a priori power analysis. The study design was a 3x5 between-subjects experimental design. This resulted in 15 total conditions. A power analysis was conducted to determine the sample size needed to achieve a minimum 80% chance of detecting significant main effects and interaction effects. Power analyses were conducted in R using the `pwr.f2.test` function. For the estimated effect sizes, I used Cohen’s conventions for a small effect, which is an *f*2 of .02 (Cohen, 1988). This corresponds to a partial *R*2 of .02, or in other words, indicates that the effect being tested accounts for 2% of the variance in the dependent variable above and beyond the other predictors in the model. I concluded that this estimated effect size was reasonable because an intervention with any smaller of an effect size would have less important practical applications.

I performed three separate power analyses for the main effect of norm-intervention condition, the main effect of framing condition, and the interaction effect between the two. The interaction effect produced the largest needed sample size. To achieve 80% power for detecting a significant interaction effect, the study requires 765 participants, which is approximately 51 participants per condition. This sample size achieves approximately 89% power for detecting a significant main effect of norm-intervention condition and approximately 94% power for detecting a significant main effect of framing condition.

* Include descriptive statistics of demographics

**Measures**

First, participants were randomly assigned to one of the following framing conditions which contextualized the behavior of reducing brand-new clothing item purchases as either pro-environmental, self-enhancing, or neither:

***Pro-environmental framing*.** The following is what participants read in the pro-environmental framing condition:

**“**In this study, we are interested in understanding people's clothing-buying habits. Please read the following excerpt related to people's clothing purchases:

Our clothing-purchasing habits have a direct effect on the environment. The clothing industry produces substantial greenhouse gas emissions (GHGs) during the manufacturing process. The emission of GHGs into the earth's atmosphere is the main factor contributing to the ongoing climate change crisis.

A few of the consequences of climate change include:

* the Earth becoming, on average, hotter
* sea levels rising, and
* more frequent severe weather events (e.g., droughts, heat waves, flooding)

Consumers choosing to reduce the number of brand-new clothing items that they purchase is one way that individuals can help to slow climate change processes. A reduction in new clothing purchases could help to decrease greenhouse gas emissions by decreasing the demand for new clothing manufacturing.**”**

***Self-enhancing framing*.** The following is what participants read in the self-enhancing framing condition:

**“**In this study, we are interested in understanding people's clothing-buying habits. Please read the following excerpt related to people's clothing purchases:

Clothing retailers in the US have reported a drop in the sales of brand-new clothing items and wanted to know whether this was accompanied by a change in people's attitudes. In 2021, researchers conducted a national survey among people living in the United States to investigate people's views on purchasing and wearing brand-new clothing items.

One of the findings from this study was that, on average, people living in the US reported that they feel unimpressed by seeing other people wear brand-new clothing items.

Rather, survey responders reported that they view people more positively who rarely buy brand-new clothing items, or when they do buy clothing, purchase it from secondhand shops.”

***Control framing condition*.** The following is what participants read in the control framing condition:

“In this study, we are interested in understanding people's clothing-buying habits. Pleas press ‘next page’ to read information about people’s clothing-buying habits and answer questions regarding your own clothing-buying habits.”

After reading one of the three framing conditions, participants were randomly assigned to one of five norm-intervention conditions. The following is what participants read in each of the norm-intervention conditions:

***Control norm condition***. “A survey was recently conducted among University of Oregon students to understand what UO students' views are on purchasing and wearing brand-new clothing items. We are interested in collecting follow-up data to this previous study. Please press 'next page' to answer questions regarding your own clothing-buying views and behaviors.”

***Descriptive norm condition***. “A survey was recently conducted among University of Oregon students to understand what UO students' views are on purchasing and wearing brand-new clothing items.

When asked about their views on people's clothing-buying habits, a majority of University of Oregon students who responded reported that they themselves have reduced the number of brand-new clothing items that they purchase as of late.

Based on responses, it appears to be more typical amongst UO students to purchase clothing from secondhand shops rather than brand-new.”

***Convention condition***. “A survey was recently conducted among University of Oregon students to understand what UO students' views are on purchasing and wearing brand-new clothing items.

When asked about their views on people's clothing-buying habits, most of the students who responded reported some amount of awareness that local community landfills often end up being overfilled with clothing. Managing this waste can create a drain on the economic resources of individuals and communities.

A majority of University of Oregon students who responded reported that they themselves have reduced the number of brand-new clothing items that they purchase as of late so as to contribute to reducing the amount of clothing that goes to landfills. This practice can help save individuals and communities money on waste management.

Based on responses, it appears to be more typical amongst UO students to purchase clothing from secondhand shops because this also helps to reduce the amount of clothing that ends up in landfills.”

***Social norm condition***. “A survey was recently conducted among University of Oregon students to understand what UO students' views are on purchasing and wearing brand-new clothing items.

When asked about their views on people's clothing-buying habits, a majority of University of Oregon students who responded reported that they believe that people should reduce the number of brand-new clothing items that they purchase and that failing to do so would be a "faux pas" (i.e., a social slip-up).

Students also reported believing that it is unnecessary to buy brand-new clothing in order to make a good impression on others at special occasions (e.g., for work, a wedding, a job interview, etc.).

Based on responses, it appears to be more typical amongst UO students to purchase clothing from secondhand shops because students want to avoid being judged by their peers and feeling guilty for buying brand-new clothing items.”

***Moral norm condition***. “A survey was recently conducted among University of Oregon students to understand what UO students' views are on purchasing and wearing brand-new clothing items.

When asked about their views on people's clothing-buying habits, a majority of University of Oregon students who responded reported that they believe that people should reduce the number of brand-new clothing items that they purchase because it is the right thing to do.

Based on responses, it appears that most UO students believe that it is more ethical to purchase clothing from secondhand shops. Responders reported thinking that buying clothing from secondhand shops is good for the environment and good for supporting ethically-run local businesses.”

Participants were also measured on several covariates, including personal values, in-group identification, interest in clothing, and socially desirable responding. For participants recruited from the Psychology/Linguistics Human Subjects Pool, these measures were included in the pre-screening, which meant participants were measured on these covariates prior to their participation in the main intervention phase of this study. For participants recruited from the general UO student population, participants responded to these measures after completing the intervention phase of the study.

***Personal Values*.** I used the values scale from Steg et al. (2012), which assesses values on four different dimensions: biospheric (i.e., pro-environmental), altruistic, egoistic, and hedonic.

Participants were asked to indicate how important a set of 16 values are to them as “guiding principles in their lives” on a scale from -1 (opposed to my principles), 0 (not important), to 7 (extremely important). The items assessing each value dimension are: biospheric (respective the earth, unity with nature, protecting the environment, preventing pollution), altruistic (equality, a world at peace, social justice, helpful), egoistic (social power, wealth, authority, influential, ambitious), and hedonic (pleasures, enjoying life, gratification for oneself).

A composite self-transcendence score is created for each participant by averaging their scores across the biospheric and altruistic dimensions. A composite self-enhancement score is created for each participant by averaging their scores across the egoistic and hedonic dimensions.

***In-group Identification*.** The degree to which participants identify with the group being depicted in a normative message has been found to moderate the persuasiveness of a social intervention (Cialdini & Jacobson, 2021; Lede, Meleady, & Seger, 2019). Normative appeals appear to be more effective amongst participants who strongly identify with the group being discussed by the normative messages compared to those who weakly identify with this group.

The current study is using normative messages to describe the behaviors of University of Oregon students. To control for the degree to which participants identify with University of Oregon students, a 14-item measure of in-group identification was used (Leach et al., 2008). Responses are on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*). This survey assesses five aspects of in-group identification, including solidarity (e.g., “I feel solidarity with other University of Oregon students”), satisfaction (e.g., “I am glad to be a University of Oregon student”), centrality (e.g., “The fact that I am a University of Oregon student is an important part of my identity”), individual self-stereotyping (e.g., “I have a lot in common with the average University of Oregon student”), and in-group homogeneity (e.g., “University of Oregon students are very similar to each other”).

***Interest in Clothing*.** The main dependent variables in this study concerns people’s intentions to reduce their future clothing consumption and to buy clothing secondhand rather than brand new. Scores on these dependent variables could vary due to individual differences in the degree to which participants are interested in clothing in general. To control for these individual differences, general interest in clothing was measured using the 20-item Clothing Interest Inventory (Schrank, 1973). This measure includes items that assess the degree to which participants are interested in clothing (e.g., “I enjoy clothes like some people do such things as books, music, and movies”) and fashion (e.g., “I have no interest in keeping up with the latest fashion trends” (*reverse-coded*)). Responses are given on a 1 (*definitely true*) to 5 (*definitely false*) scale.

***Socially Desirable Responding*.** To control for individual differences in participants’ tendency to give socially desirable responses, participants completed the Balanced Inventory of Desirable Responding Short Form (Hart et al., 2015). The short form improves upon the length and language of the original 40-item BIDR while still replicating the original scale’s two-factor structure with acceptable fit and reliability. The measure includes 16 items assessing impression management (e.g., “When I hear people talking privately, I avoid listening”) and self-deceptive enhancement (e.g., “I never regret my decisions”). Responses are given on a 1 (*strongly disagree*) to 7 (*strongly agree*) scale.

Finally, participants were measured on the following two dependent variables:

***Intentions to Reduce Future Clothing Consumption***: The first dependent variable measured participants’ intentions to reduce their new clothing item purchases over the next five years. This 8-item survey was developed for the current study. It assesses the degree to which people intend to not buy new clothing in the future, as well as the degree to which people intend to buy secondhand clothing instead of brand-new clothing. The instructions will inform participants that each statement is about the prospective clothing purchases that the participant may make in the next five years. All eight items are listed below:

In the next five years…

1. I will purchase very few brand-new clothing items.

2. I will purchase many brand-new clothing items. (*reverse*)

3. I will only purchase a brand-new clothing item if it is something that I need for basic functioning.

4. I don’t plan on changing the number of brand-new clothing items that I typically buy. (*reverse*)

5. When I purchase a clothing item, I will get it from a secondhand shop rather than brand new.

6. When I purchase a clothing item, I will get it brand-new instead of from a secondhand shop. (*reverse*)

7. When I need a new clothing item for a special occasion, I will look for it at a secondhand shop instead of buying it brand new.

8. When I need a new clothing item, I will go straight to buying it brand-new and not look for it at a secondhand shop first. (*reverse*)

***Buying Clothing Secondhand Instead of Brand New*:** Participants will be presented with the choice to enter themselves into one of two raffles, either the chance to win a $50 gift card to spend on new clothing items or a $50 gift card to spend on secondhand clothing items.

**Analysis Plan**