

Longevity and Recycling: The Effect of Existence Bias on Recycling Participation

Jordan Schanda

Department of Psychology

PREVIOUS RESEARCH

Psychology can offer insight into the mechanisms that drive environmental consciousness, as well as provide techniques for increasing participation in proenvironmental behaviors, such as recycling. Research on existence bias has demonstrated an increased tendency for people to choose or prefer something merely as a function of its existence or longevity; I believe this could serve as an effective way to drive environmentally conscious behavior. Previous research demonstrates that gender plays a significant role in environmentalism, and specifically, that women report higher levels of participation in proenvironmental behavior compared to men. Other research shows that behavior can be predicted from issue-specific attitudes. For example, if trying to influence or predict recycling behavior, attitudinal measures must target recycling specifically.

METHODS

Seventy-seven U of A students (57% female, 43% male) self-selected themselves into this experiment, which was disguised as a study on “advertisement techniques.” Participants were presented with an ad for the University of Arkansas’ recycling program and informed that it had been around for either three years or three decades. Participants received a recyclable cup near the end of the study and subsequently had the opportunity to recycle it. Recycling behavior was recorded and calculated in the form of percentages for each group.

HYPOTHESES

I hypothesized that participants in the long time in existence condition (three decades) would exhibit a higher recycling rate compared to those in the short time in existence condition (three years). I also predicted that attitudes toward recycling would be stronger among women, and that these attitudes, regardless of gender and condition, would correspond closely with behavior.

THE RECYCLING AD

University of Arkansas
Recycling Program



The university's **new** recycling program is going on its **third year** of operation.

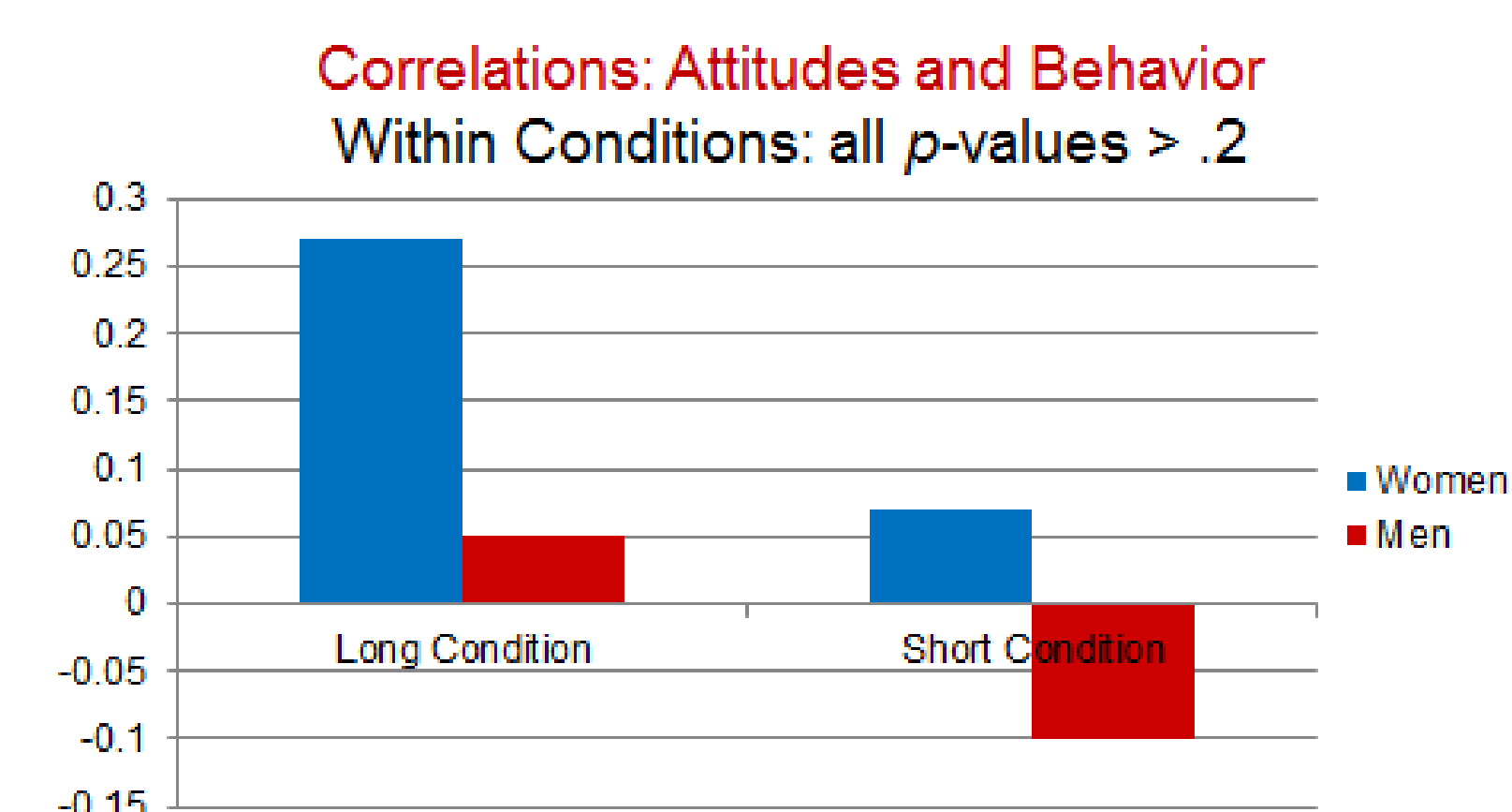
Materials collected:

- white and mixed paper
- aluminum
- plastic
- cardboard

Razorback Recycling
University of Arkansas
434 Eastern Avenue
Room: PPRC-Bldg #1
Fayetteville, Arkansas 72701
Monday-Friday 7:30am-4:00pm
Phone: 575-3028

Above is the ad used in the short time in existence condition. Participants in the long condition saw the same ad, but it claimed that “the university’s well-established recycling program is in its third decade of operation.”

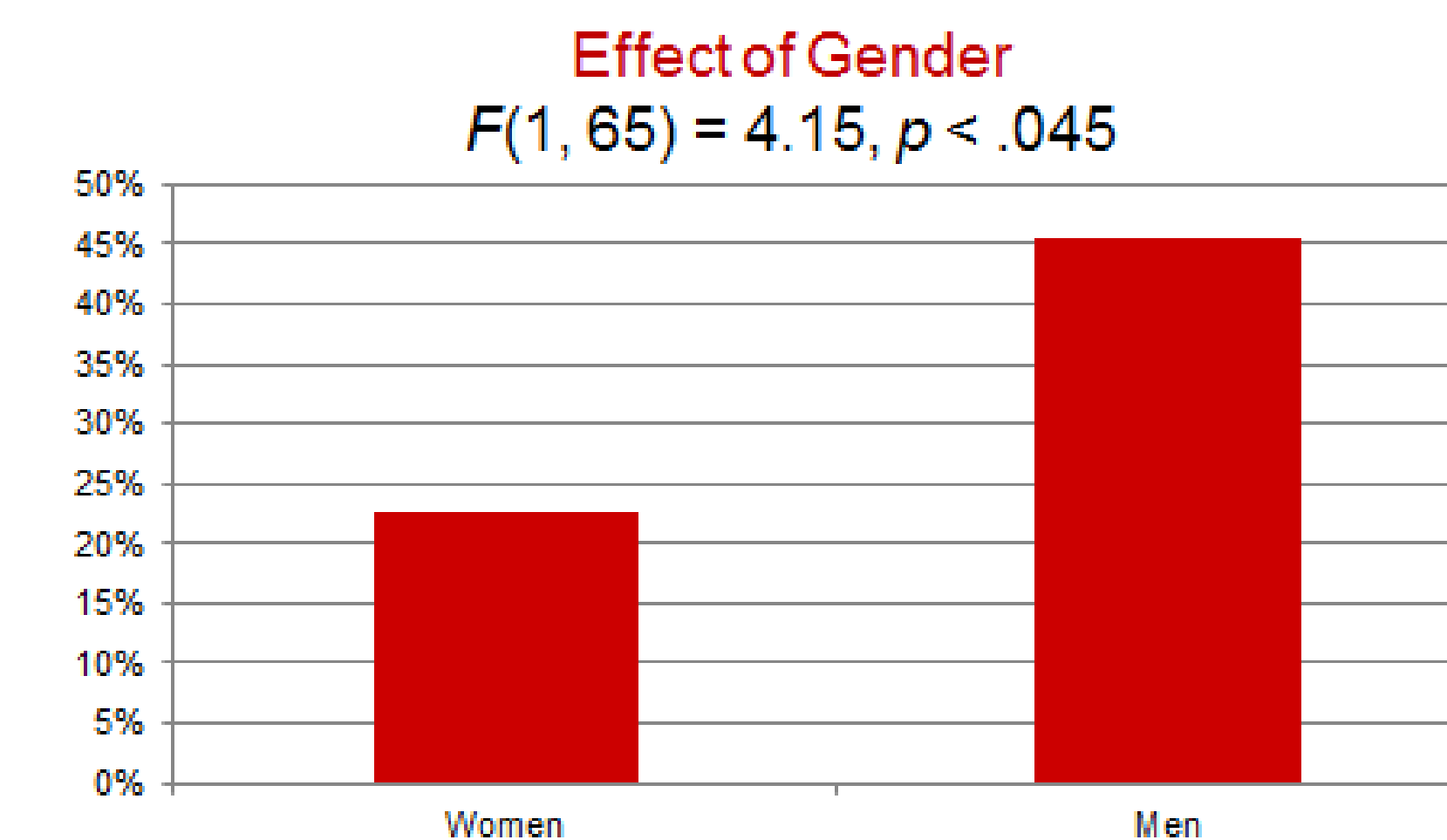
FINDINGS



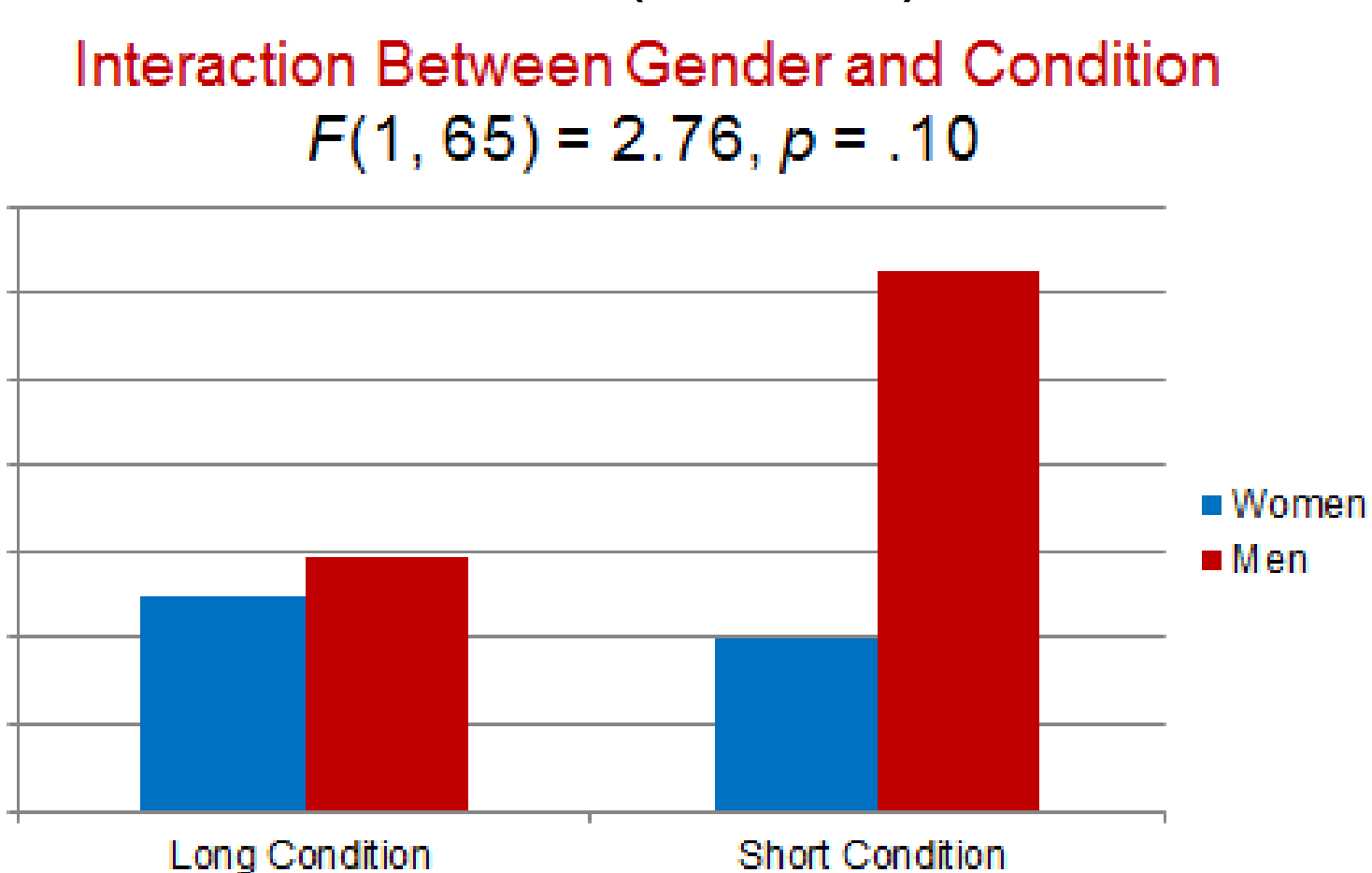
Overall, the correlation between attitudes toward recycling and recycling behavior was not significant, $r(73) = .07$, $p = .53$. This means that attitudes toward recycling, as measured by a demographic questionnaire, did not predict recycling behavior.

This supports the existence of an attitude-behavior gap, despite the use of issue-specific attitude measures. It is possible that participants’ attitudes following their exposure to time in existence could have matched up with their recycling behavior, and differed from their initial attitudes toward recycling. In addition, time in existence could have had an effect on participants’ opinions without the increased favorability being converted into action.

FINDINGS



A three-way ANOVA revealed a significant effect for gender. Across conditions, males recycled at a higher rate (45.5%) when compared to females (22.5%).



A marginal interaction between gender and condition was also present. Men in the short time in existence condition had significantly higher rates of recycling (62.5%) compared to males in the long time in existence condition (29.4%), $F(1, 69) = 4.38$, $p = .04$. Women did not show a significant difference, though their means tended to go in the opposite direction (20% and 25%, for the short and long conditions, respectively), $F(1, 69) = 0.12$, $p < .73$.

As these means suggest, males who were told that the recycling program had been around for three years had the highest rate of recycling compared to the other three groups; a one versus three contrast confirmed this, $F(1, 69) = 7.79$, $p = .007$.

Some objects and situations may be preferred as a function of their perceived short time in existence, including cars and smartphones. Preference for novelty is found most often when the object or behavior is familiar to the individual. It is possible that those participants who engaged in recycling were familiar with the recycling program on campus, or recycling in general.

SUSTAINABILITY

Everyday habits and decisions are having a large impact on climate change; however, it seems that these routine behaviors are the most difficult to challenge. Recycling is a fairly simple behavior that has the potential to reduce greenhouse gas emissions from many sources including methane from landfills and emissions produced by waste incinerators.

Based on my research, existence bias cannot be added to the list of techniques for encouraging proenvironmental behavior. However, contingent on further research, informing men of a recycling program’s “newness,” as conveyed by a short time in existence, could lead to increased participation in recycling by men.

FUTURE RESEARCH AND IMPLICATIONS

The possible explanations for my findings should be examined through further research by gathering information regarding attitudes toward recycling before and after the manipulation of longevity. Use of a control group would also offer a better comparison between attitudes and behavior, irrespective of longevity. Furthermore, a control group would determine a baseline recycling rate that would allow me to make comparisons between groups and to draw conclusions about whether recycling rates increased or decreased due to the manipulation of longevity.

However, I can make some theoretical comparisons based on the recycling rate at the University of Arkansas. According to the recycling coordinator, the current recycling rate on campus is 36 percent. Men in the short time in existence condition exhibited a recycling rate of over 62 percent, suggesting that their knowledge of the recycling program’s “newness” led to increased recycling.