

Environmental harshness influences the desire for signalling products used during sexual competition

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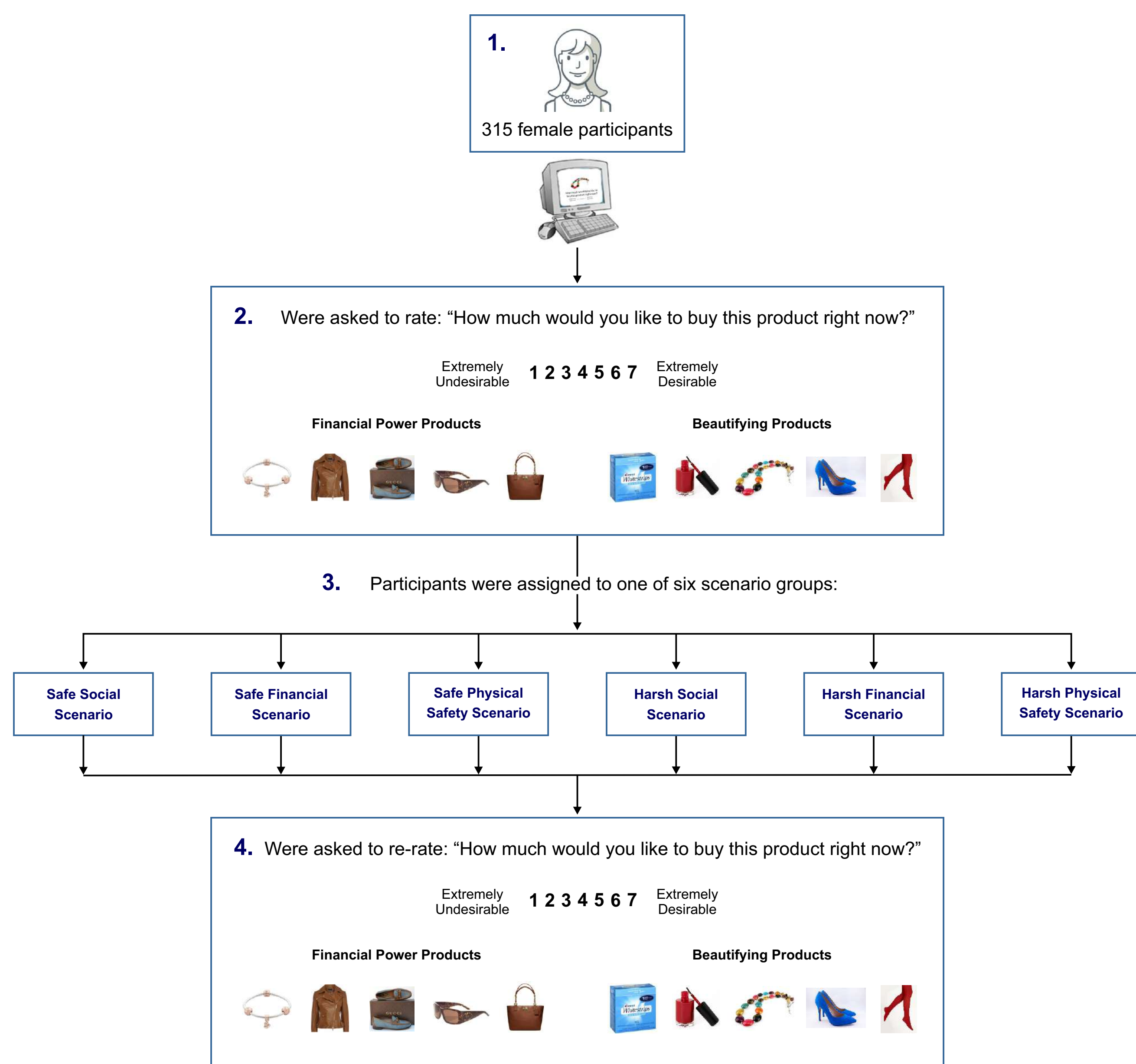
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Introduction:

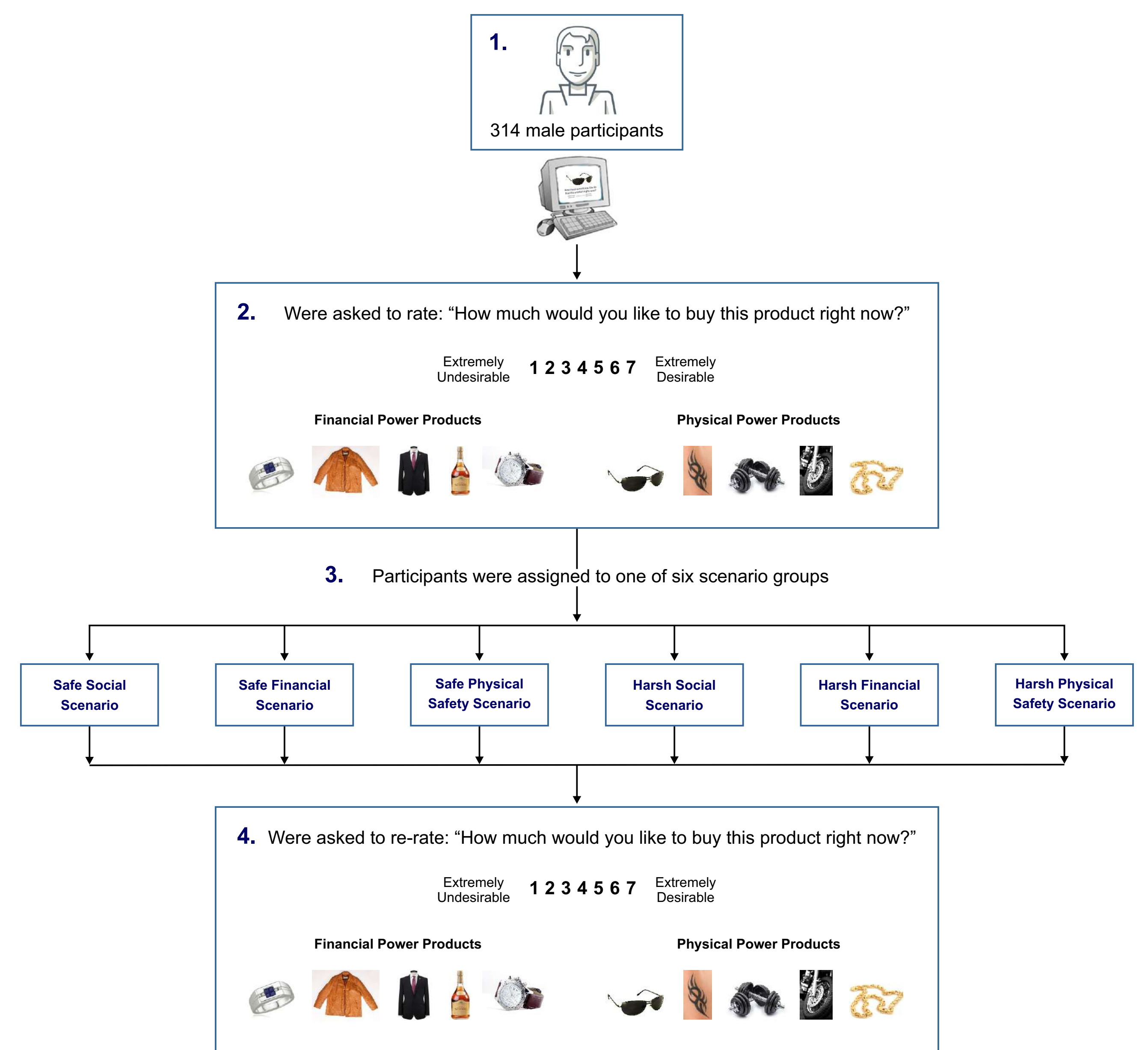
In a fast life-history ecology, consumers invest greater effort and financial resources into mate acquisition and reproductive initiatives. These initiatives include the purchase and conspicuous display of products that either intimidate same-sex rivals (intrasexual competition) or attract members of the opposite sex (intersexual competition).

In this study we examined how the desire for signalling products change depending on the type of environmental harshness (social, financial, physical safety).

Experiment 1 (Methods):



Experiment 2 (Methods):



Results:

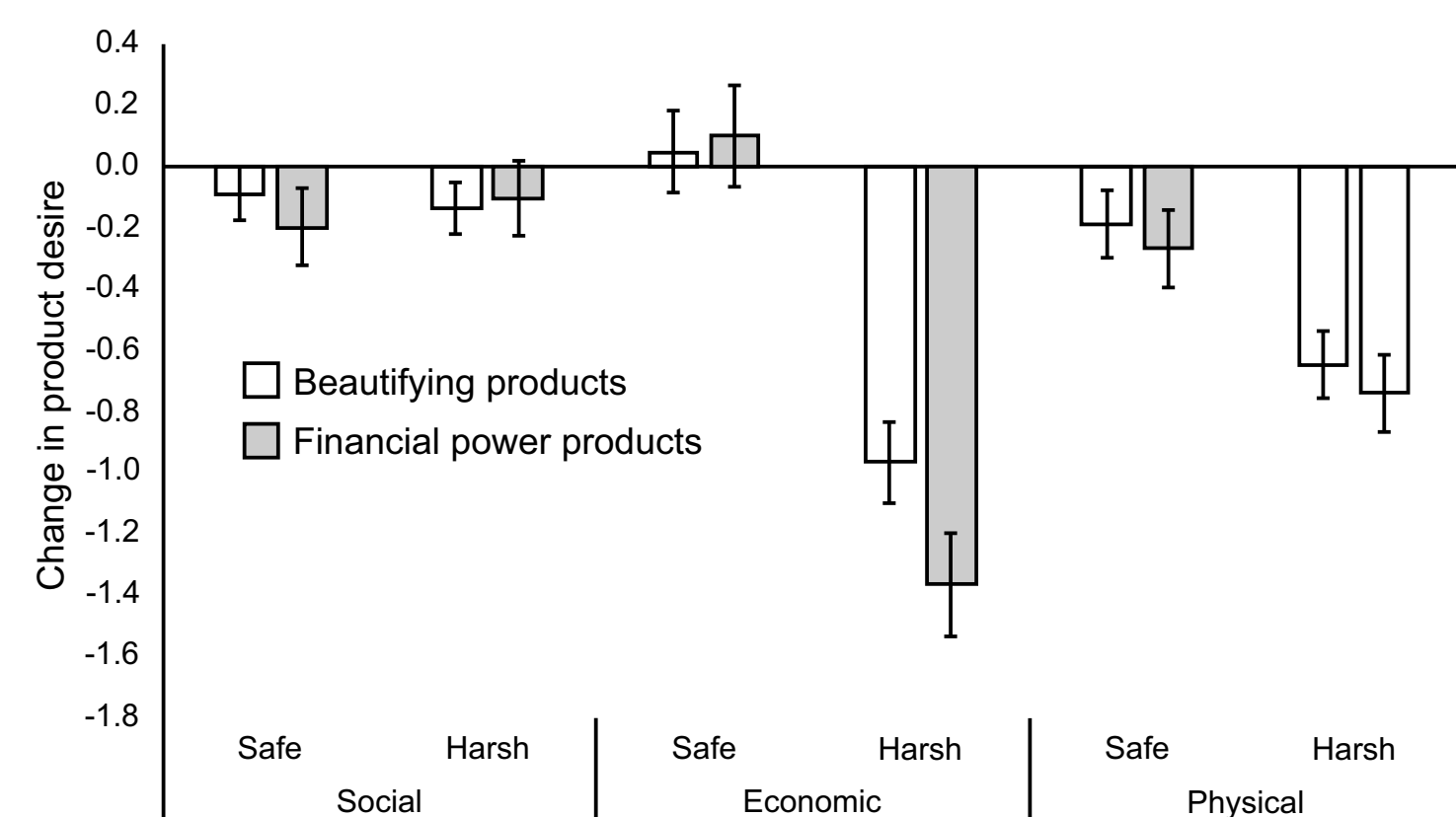


Figure 1. Female Products: Change in mean pre- and post-test product category desirability scores relative to safe and harsh scenarios. Negative numbers indicate a decrease in product category desirability scores, whereas a positive score refers to an increase in product category desirability following the scenario manipulation.

Results:

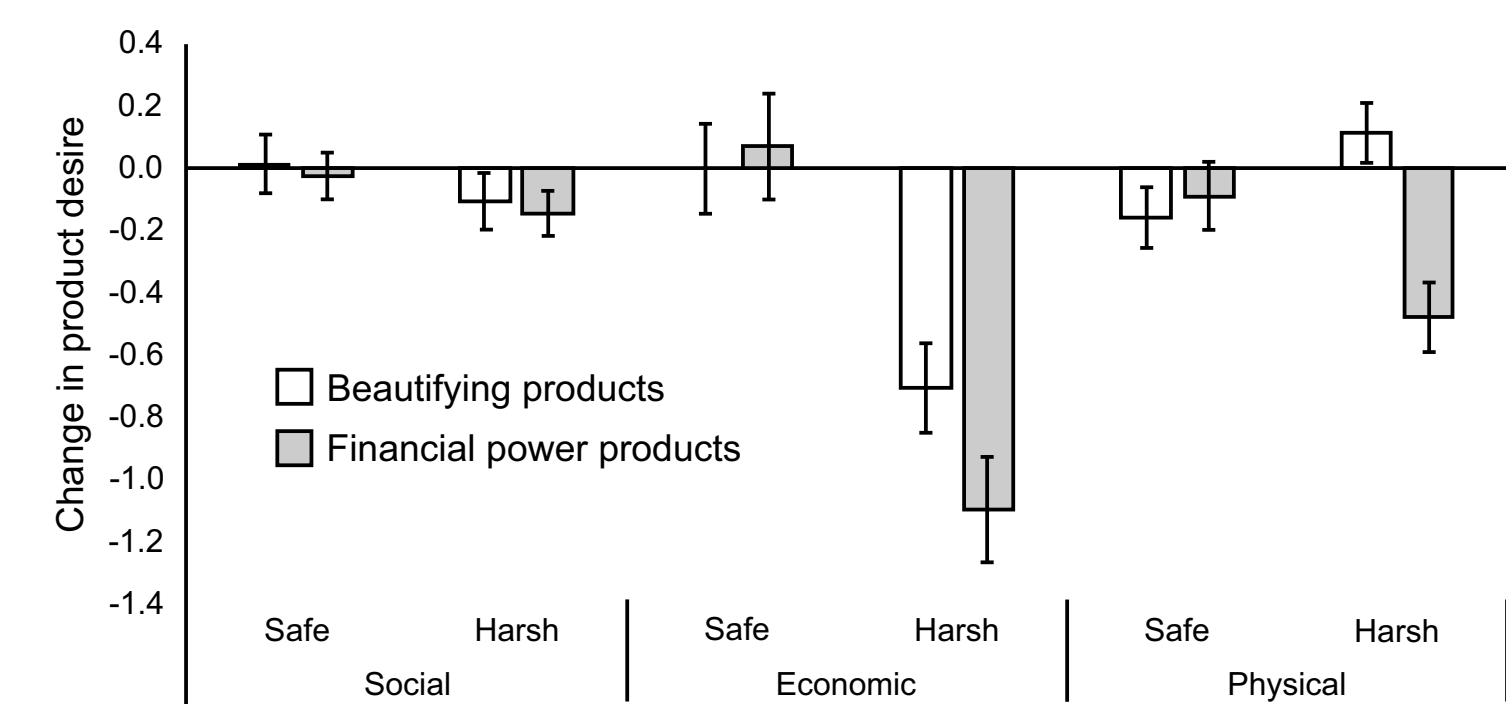


Figure 2. Male Products: Difference in mean pre- and post-test product category desirability scores relative to safe and harsh scenarios. Negative numbers indicate a decrease in product category desirability scores, whereas a positive score refers to an increase in product category desirability following the scenario manipulation.

Experiment 1: Female Product Desire

Changes in desire for beautifying and financial power signalling products.

In the safe economic scenario, there was no significant difference between the change in desire for beautifying and financial power products. However, in the harsh economic scenario, participants' desire for financial power products decreased significantly more than beautifying products. It is also important to note that in the economic and physical safety scenarios, there were significant main effects of environmental harshness. Participants' desire for both beautifying and financial power products decreased significantly more in the harsh conditions than the safe conditions. In the social scenarios, the main effect of environmental harshness was not significant.

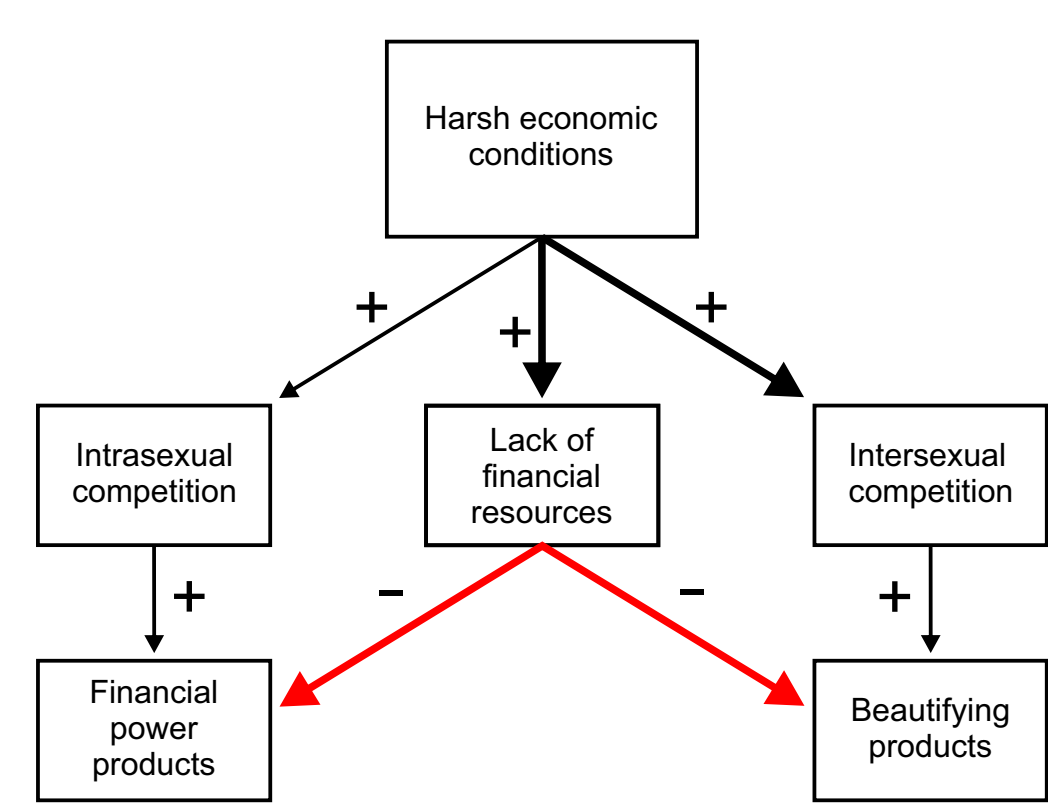


Figure 3. The hypothesized model that explains the difference in desire change between beautifying and financial power products under harsh economic conditions.

We hypothesize that when exposed to primes of environmental harshness, women will demonstrate an increase in desire for beautifying and financial power signalling products. This hypothesis was indirectly supported by the significant interaction in the economic scenario, which suggests that while participants' desires for products decreased in general due to lack of economic resources, there was less of a reduction in the desire for beautifying products. Specifically, we can infer that under harsh economic conditions, the participants felt a higher sense of intersexual competition than intrasexual competition. These relationships are illustrated in Fig. 3.

Experiment 2: Male Product Desire

Changes in desire for physical power and financial power signalling products.

In the social scenarios, no significant effect was found. In the economic scenarios, there was a significant main effect of environmental harshness. Participants' desire for both financial power and physical power decreased significantly more in the harsh condition than the safe condition. No significant interaction was found between environmental harshness and product category. However, a post hoc analysis showed that participants' desire for physical power products decreased significantly less than their desire for financial power products in the harsh economic scenario. In the physical scenarios, we found a significant interaction between environmental harshness and product category. Specifically, in the safe physical scenario, there was no significant difference in change in product desirability for both product categories. However, in the harsh physical scenario, participants' desires for physical power products increased, but their desires for financial power products decreased, and this difference was statistically significant.

Conclusions:

Consumers often purchase products for their symbolic value (Berger and Ward, 2010) and as a means to signal or communicate a message to others. On the surface, it may appear that buying products for signalling purposes may be wasteful, but when these purchases are examined from an evolutionary perspective these consumer behaviours may be seen as adaptive as they can play a communicative function during sexual competitions (Miller, 2000; Saad, 2007; Sundie et al., 2011). Women and men use products to intimidate same-sex rivals (intrasexual competition) and other products to attract members of the opposite sex (intersexual competition).

In this study we provided evidence that supports the perspective that the products one chooses to use in sexual competitions varies depending upon the level of environmental harshness (safe vs. harsh).