

# Hungrier, then what? Motivational processes underlying size judgment under ownership uncertainty

Influence of ownership status on size judgments as a measure of motivation

#### Introduction

Human perception does not accurately reflect reality. Instead, our perception often mirrors our motivation toward particular goals. That is, people tend to perceive items they highly need larger (hungrier-thelarger effect) for being more motivated to acquire them (wishful thinking). In four experimental studies. Dai and Hsee (2013) argue this phenomenon to be true only when relevant items do not belong to people. They demonstrate that the reverse hungrier-the-smaller effect - i.e. people perceiving items they highly need smaller - occurs when relevant items belong to them for being motivated to pursue more of it (worryful thinking). Because they argue these perceptual biases to be the result of differing motivational foci between ownership and nonownership, they propose that manipulating the motivational focus (possibility of getting vs. risk of not getting) for a single outcome should have the same effect on size perception as manipulating the outcome itself (mine vs. not mine, respectively). As the outcome shall not be manipulated, this suggests an uncertain intermediate outcome, which I implemented in this study as a 50% probability of receiving the target item for both motivational foci. The present study thus intends to clarify which motivational processes underlying ownership prospects influence size judgment under uncertainty.

### **Theoretical background**

The perspective of ownership or non-ownership of an item relates to either a gain or a non-gain situation. According to regulatory focus theory (Higgins, 1997) moderated by hedonic motives (Malaviya & Brendl, 2014), both gains and non-gains involve a promotion focus (sensitivity to positive outcomes), but people naturally approach gains and avoid non-gains.

Moreover, Vroom's expectancy theory (1964) posits that motivation is a positive function of expectancy, which is computed based on the subjective likelihood of a particular outcome occurring. While *wishful thinking* makes the desirability of an outcome increase the subjective likelihood with which it is expected to occur (Krizan & Windschitl 2007), *strategic pessimism* makes the undesirability of an outcome increase the subjective likelihood with which it is expected to occur as a defensive means to brace for the outcome (Shepperd et al., 2000).

### Hypotheses

A1: The higher the need, the higher the desirability of the desired outcome and the higher the undesirability of the undesired one.

**H1:** When an uncertain outcome is presented as a gain, a higher desirability elicits wishful thinking. Wishful thinking, then, increases the subjective likelihood with which the desirable outcome is expected to occur. This, in turn, increases the motivation to approach the desirable outcome, reflected through the hungrier-the-larger effect.

**H2:** When an uncertain outcome is presented as a non-gain, a higher undesirability elicits strategic pessimism. Strategic pessimism, then, increases the subjective likelihood with which the undesirable outcome is expected to occur as a mean to prepare for potential disappointment. This, in turn, increases the motivation to avoid the undesirable outcome, reflected through the hungrier-the-smaller effect.

# Method

**Experimental design:** The experiment followed a 2 (need state: low vs. high) x 2 (motivational focus: gain vs. non-gain) between-subjects repeated measures design. Volume estimation (DV) was measured 3 times on 3 differently filled water cups in order to reliably assess perception.

**Procedure:** 160 participants were asked either to drink 330ml of water or to eat three large salty crackers to induce low or high levels of thirst, respectively. Before being shown the 3 water volumes to be estimated, they were either told that they had a 50% chance to get the water and to be able to drink what they wanted from it, or a 50% probability\* not to get any of the water and not to be able to drink it.

\* Here the word "risk" was not employed because it refers to a loss rather than a non-gain prospect.



Figure. Average volume estimation of the three cups per condition.

#### Results

There was no significant difference between the mean of the estimations of participants in high and low need from the gain condition ( $M_{gain,high} = 136.51$ , SD = 14.12;  $M_{gain,low} = 133.28$ , SD = 18.04; t(115) = 0.83, p = 0.41). As well, in the non-gain condition, the mean estimation of participants in high need did not significantly differ from that of participants in low need ( $M_{non-gain,high} = 136.8$ , SD = 11.12;  $M_{non-gain,low} = 133.68$ , SD = 15.87; t(115) = 0.80, p = 0.43). A repeated measures analysis with participants as random effects confirmed no significant differences in estimations between subjects in high and low need state in both framing conditions ( $\beta_{gain} = -1.17$ , SE = 5.10; t(347) = -0.23, p = 0.82;  $\beta_{non-gain} = 1.93$ , SE = 5.13; t(347) = 0.38, p = 0.71). Hence, these results did not enable me to validate the stated hypotheses.

Further analyses, however, revealed effects of the two treatments on the participants' satisfaction with the faced outcome, and on their subjective likelihood of receiving the water. These latter results suggested a partial confirmation of the some steps of the proposed motivational process leading the to main hypotheses.

### **Main references**

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