
Greater value of resolving uncertainty and positive outcomes in self-relevant compared to social information seeking

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Abstract

Information about what is happening to other people has vital implications for interpersonal relationships and addressing global challenges. However, with ever-increasing information available, we must constantly choose whether to seek it. Existing work suggests people seek self-relevant information that resolves uncertainty and is positive. These benefits must be compared with the costs, such as the time required. Here, in a preregistered study, we tested whether the same factors drive social and self-relevant information seeking.

Methods

Two large online samples completed a novel information seeking task that measures choices to seek information about financial rewards for oneself or an anonymous other person ($n_1=238$; $n_2=244$ with 229 tested again a week later). Information varied in uncertainty, valence, and the time cost required to seek it, but had no instrumental utility as participants could not affect the outcomes. The task showed good test-retest reliability (ICC self=0.86, other=0.79) and all results replicated across the samples (reported as $n_1 - n_2$ timepoint 1). Participants also completed a discounting task that measures how they discount financial outcomes for self and other by the time to obtain them. Computational models fit across tasks estimated subject-specific parameters for sensitivity to uncertainty and valence, as well as discounting of rewards by time, separately for self and other.

Results

Participants overall did choose to wait to find out about outcomes for others but were significantly less interested in this social information than information about rewards for themselves (other mean = 35% — 35%, self mean = 48% — 45%, odds ratio (OR)=0.58 — 0.61, $p < 0.001$). While uncertainty and positive valence promoted information seeking for both recipients, these factors had a greater effect when outcomes affected the participant compared to someone else (uncertainty OR=0.94 — 0.95, valence OR=0.88 — 0.93, $p < 0.015$). In other words, participants valued social information less than self-relevant information because they were less interested in resolving uncertainty and seeing positive outcomes for others.

Conclusions

Our results show that people value information about other people, and are willing to wait to seek it, depending on the same computational mechanisms that promote seeking information

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about rewards for oneself. However, lower sensitivity to valence and uncertainty about social outcomes lead to lower interest. The reliability of our novel task also suggests stability in individuals' preferences for information over time.