

The mere presence of a photo on a product label can change taste perception (Working paper)

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◦Purpose: Photos that are related to claims but not diagnostic of their truth can lead people to think those claims are true. Photos might produce this effect by making it easier for people to generate information related to claims, boosting conceptual fluency. Might photos on wine labels also affect the perceived taste of the wine?

◦Design/methodology/approach: We developed a set of wine names and told participants they would sample each. All of the wines were actually the same. As participants tasted each wine, they decided whether the claim “This wine tastes high quality” was true or false. Some wine names appeared with a related photo next to a label during tasting; other wine names appeared without a photo next to the label.

◦Findings: People responded true (that the wine tasted high quality) more often when wine names appeared with photos versus without photos. This finding suggests that photos related to wine names can affect people’s taste judgments, and fits with the idea that people use conceptual fluency as a metacognitive cue to evaluate taste.

◦Practical implications: These findings have vast marketing implications as they demonstrate that consumers’ experience of a product can be altered by pairing the product’s name with a related photo. These findings also have implications for wine label design.

Key words: Conceptual fluency, Judgments, Taste, Perception

1. INTRODUCTION

Would a photo of a kookaburra on the label of a wine called “Laughing Kookaburra” lead you to think it tastes high quality? The photo is an extrinsic cue, and cannot change the way the wine interacts with your taste buds to produce a taste sensation. Extrinsic cues are factors that do not alter intrinsic properties of the product (e.g., the wine itself; Dawar & Parker, 1994). Yet people often encounter food and beverages in packaging covered with such tangential images. Do those images influence consumers’ judgments about how those products taste?

We know that visual art on a product’s package (or label) has a positive impact on consumer perceptions (Hagtvedt & Patrick, 2008). We also know that non-probative photos—those that provide no evidence for or against a claim—affect people’s judgments about those claims: in one study, people responded true more often to trivia claims (Turtles are deaf) when those claims appeared with related photos (a photo of a turtle, for instance; Newman, Garry, Bernstein, Kantner, & Lindsay, 2012). One reason photos might produce these effects is because they help people bring to mind related thoughts and images, making the information about the claim easier to process. And we know that when people make decisions, they draw on the experience of easy processing for many judgments: people tend to judge information that is easy to perceive, pronounce, or bring to mind, as more true, familiar, and likable (Alter & Oppenheimer, 2009). In one study, people studied a list of words and later saw some of those words mixed with new words and decided whether they saw each. Preceding test words (*boat*) by highly related sentence fragments (*The stormy seas tossed the*) led people to call those words “old” more often than preceding test words by loosely related sentence fragments (*He saved up his money and bought a*; Whittlesea, 1993). The highly related sentence fragments are thought to produce this false sense of familiarity by making it relatively easy for people to process the meaning of words, boosting conceptual fluency.

But people’s interpretations of fluency experiences are context dependent: the highly related sentence fragments, for example, can also lead people to judge target words as more pleasant (Whittlesea, 1993; for a review, see Alter & Oppenheimer, 2009). Because the meaning of ease is malleable, people might use it as a cue for taste evaluations as well. Indeed, one study showed that consumers rated cheese associated with perceptually difficult to read font as higher quality, presumably because difficulty signals uniqueness (Pocheptsova, Labroo, & Dhar, 2010). Moreover, another study showed that consumers thought orange juice tasted better when the name of the juice was written in an easy to read font (KNOLLWOOD) versus a difficult to read font (KNOLLWOOD; Mantonakis, Galiffi, Aysan, & Beckett, 2013). The ease with which people could process the extrinsic product cues contaminated their sensory perceptions, a finding that suggests consumers’ ongoing processing experiences influence taste. Might conceptual fluency arising from an extrinsic product cue (such as an image associated with a label) also contaminate taste perception? That is the question we address in this research.

We predicted photos related to the names of products would change consumers’ taste evaluations. A photo of a kookaburra, for example, might help people bring to mind information related to the bird, boosting conceptual fluency for the wine name “Laughing Kookaburra”. While thoughts and images gleaned from the photo should not provide diagnostic evidence about how Laughing Kookaburra wine tastes, the boost in conceptual fluency might nonetheless influence the consumer’s sensory evaluation.

2. METHOD

To examine that hypothesis, we developed a set of six wine names by pairing adjectives and

nouns from the MRC Psycholinguistic database. We chose adjectives rated high (Little) and nouns rated low (Wherry) in familiarity because we suspected photos would help people generate thoughts and images best for nouns that were relatively unknown. We avoided nouns with an obvious relation to wine. We used wine as the product because it allows us to examine the relationship between the photo effect and participants' knowledge about wine.

In a series of studies (only 1 is explained in detail here) we showed that the presence of a photo was associated with not only increased quality perceptions, but also increased taste perceptions.

For our tasting study, we recruited 121 students and members of the local community to participate in the experiment in exchange for course credit, or five Canadian dollars. We told participants they would sample wines from a wine festival, and explained that judges had rated some of the wines as "low quality" and others as "high quality". All of the wines were actually the same (a local Pinot Noir), unbeknownst to participants in the study. As participants tasted each wine, their task was to decide whether the claim "This wine tastes high quality" was true or false. Wine labels for the corresponding wine appeared on a computer screen, one at a time, in a random order against a white background.

We used a one-factor (photo with label vs. no photo with label), within subjects design, whereby half of the wine names appeared with a photo that depicted the noun in its name, counterbalanced so wine names appeared with and without photos equally. After, we gave participants a knowledge test about wine (Hughson & Boakes, 2001) so we could examine whether people's knowledge about wine relates to the photo effect.

3. RESULTS

We calculated the proportion of "true" responses to the claim "This wine tastes high quality", comparing wine names that appeared with and without photos. We used a pairwise t-test to examine claims of "true" responses to the claim "This wine tastes high quality" for the wines that had a photo versus the wines that did not have a photo. As Figure 1 shows, participants responded true more often to the claim when wine names appeared with photos ($M = .50$, $SD = .30$) compared to alone ($M = .42$, $SD = .30$; $t(120) = 2.19$, $p = .03$). There was no significant relationship between the photo effect and participants' knowledge of wine.

4. DISCUSSION

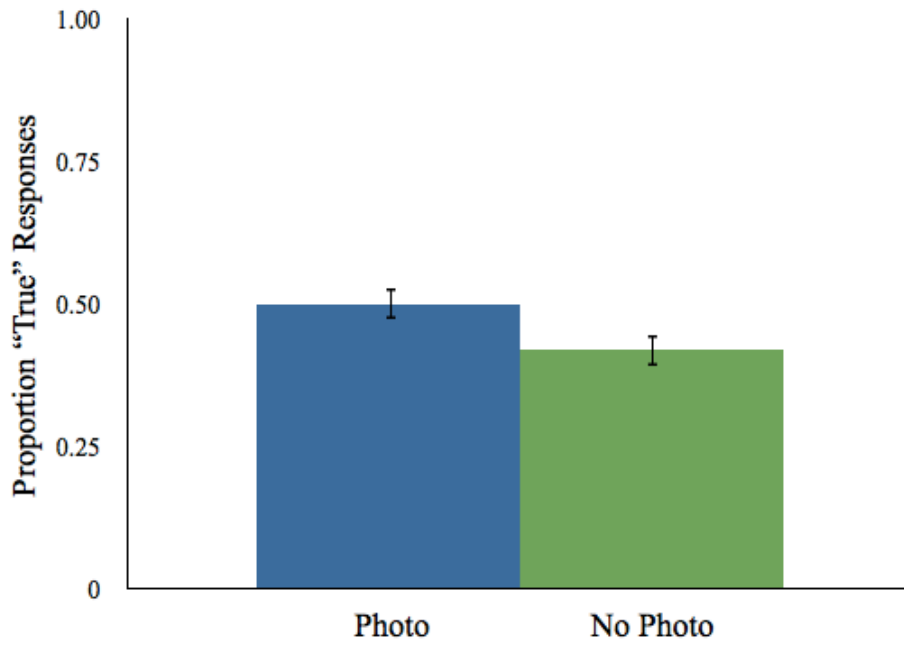
This finding suggests photos can influence judgments about how something tastes, despite that people could have evaluated the proposition based on more diagnostic sensory information. The possibility that photos influenced taste judgments by boosting conceptual fluency converges with research showing that other fluency manipulations (e.g., perceptual) influence taste perception (Mantonakis et al., 2013). Moreover, we speculate that photos exerted these effects even though people do not necessarily believe photos should affect the taste of wine, and this speculation is consistent with people's bias to pin feelings that arise while doing a task as relevant to the task at hand, even when those feelings are irrelevant (Higgins, 1998). This possibility is the focus of follow-up studies that we plan on running.

Practically, the finding that the simple presence of a photo with a wine affects taste perception suggests that when people taste wine or other products, they might be more inclined like the taste of, and perhaps purchase, those that appear with an image, especially if that image makes it easier to bring to mind thoughts and images related to the wine's name.

We suspect that photos influence taste perception by making the generation of information related to product names more fluent—an experience often used as a positive cue (e.g. Alter & Oppenheimer, 2009). It is possible, however, that people instead used the aesthetics of the photos as a cue. Future research will address this alternative explanation by boosting conceptual fluency in a way that is not closely tied to aesthetics of the extrinsic cue. Second, ease can signal truth, or signal that something is positive or preferred, so it is ambiguous from our data whether photos biased people to respond true or positively. Future research will address this ambiguity. Finally, our research did not examine a possible boundary condition of our finding: the type of photo (abstract, organic, landscape, etc.), and this can also be examined in follow up studies. Results of such follow up work will be useful for marketing managers in the wine industry.

Our findings add to the literature showing that metacognitive experiences can influence sensory experiences (Mantonakis et al., 2013). Specifically, the findings suggest that conceptual fluency may be yet another metacognitive cue that people draw on to evaluate taste. In addition, these results might shed light on new experiments in packaging, and the effects of having a photo on different types of packaging on consumer perceptions.

Figure 1: Proportion of “True” responses to the claim “This wine tastes high quality”. Error bars represent standard error.



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