When Calorie Information Does and Does Not Impact Consumers’ Food Choices

Peggy Liu, Duke University, USA
Steven Dallas, New York University, USA
Tanya Chartrand, Duke University, USA

We examine when and why calorie information fails to decrease calories ordered. We show that licensing cues cause some consumers to be less sensitive to calorie information. We also show that adding a per-meal calorie guideline ironically leads some consumers to be more interested in higher-calorie foods than lower-calorie foods.

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EXTENDED ABSTRACT
In an effort to promote healthier food choices and fight obesity, the Patient Protection and Affordable Care Act includes a provision requiring chain restaurants with 20 or more locations nationwide to provide calorie information for food items on their menus. Although calorie labeling in chain restaurants has not yet been implemented nationwide, similar laws have already been adopted in many United States jurisdictions (Krieger et al. 2013). However, doubts have been raised as to whether calorie labels are effective at decreasing calorie intake (Loewenstein 2011). In addition, existing research on the effectiveness of calorie labels has produced mixed results (Kiszko et al. 2014). This previous research has typically focused on examining whether adding calorie information to menus has an impact at a simple yes-or-no level. In contrast, the present research consists of five studies examining when and which consumers use calorie information as policy makers intend—to make lower calorie food decisions.

We structure the present research around the central notion that calorie information is a cue to the extent to which a product addresses a health goal. Using this structure, we examine four situational factors that can alter the extent to which consumers use calorie information to make lower calorie food decisions. Specifically, we propose that whether calorie information is used to make lower calorie food decisions depends upon the following situational factors: whether a health goal (vs. a taste goal) is activated (Studies 1–2), how much health goal progress a consumer has made (Study 3), the presence of an alternative cue (besides calorie information alone) about the extent to which a food item addresses a health goal (Study 4), and the presence of a cue that can alter how consumers map calorie information onto product healthiness (Study 5). Moreover, we suggest that sensitivity to some of these different factors will depend upon individual differences in restrained eating: restrained eaters will tend to use calorie information to make lower calorie food decisions across a wider range of situations, whereas unrestrained eaters will tend to use calorie information to make lower calorie food decisions only under a much narrower range of situations.

In Studies 1 and 2, participants were exposed to a health or taste goal cue. Because people assume that the number of calories in an item is an indication of the product’s healthiness (Booth 1987), we predicted and found that consumers—regardless of dietary restraint—for whom a health goal is activated will use calorie information as intended—to make a lower calorie food choice—regardless of their level of dietary restraint. Similarly, because consumers high in dietary restraint (“restrained eaters”) compared to consumers low in dietary restraint (“unrestrained eaters”) are highly sensitive to their eating behavior and consciously and continually monitor it (Herman and Mack 1975), we predicted and found that even when a taste goal was activated they used the calorie information as intended. On the other hand, however, because the goal to consume fewer calories is weaker and less persistent for unrestrained eaters (Mohr, Lichtenstein, and Janiszewski 2012; Stice 1998), we predicted and found that when a taste goal was activated, unrestrained eaters do not use the calorie information as intended.

In Study 3, participants were asked to list three or seven times that they had eaten healthily in the past week. We predicted and found that when people are reminded of the progress they have made toward their health goal, they feel licensed to indulge, and do not use the calorie information as intended, regardless of their level of dietary restraint (Fishbach and Dhar 2005).

In Study 4, we manipulated whether consumers were asked their purchase intentions for a chicken wrap at a restaurant with a health halo (Subway) or a restaurant without a health halo (McDonald’s) (Chandon and Wansink 2007). We found that when a restaurant has a health halo (Subway), which we argue can be used as an alternative cue to a product’s healthiness, restrained and unrestrained eaters respond to the calorie information in different ways. Because of restrained eaters’ heightened sensitivity to calorie information (Mohr et al. 2012), we found that regardless of whether a restaurant has a health halo, restrained eaters use the calorie information as intended. However, because a health halo can be used as alternative information that the products at a restaurant are healthy (Chandon and Wansink 2007), and unrestrained eaters are less sensitive to calorie information (Mohr et al. 2012), we predicted and found that unrestrained eaters use the calorie information as intended when the restaurant does not have a health halo (i.e., it cannot be assumed that the food at the restaurant is healthy), but use the calorie information in an unintended way when the restaurant has a health halo.

Finally, in Study 5, we tested the effectiveness of an oft-proposed menu-board intervention that informs consumers about the recommended calorie limit per meal for adults. We propose that this intervention may alter how some consumers map calorie information onto product healthiness. Indeed, we found that the intervention had no effect on the food choices of unrestrained eaters but, because restrained eaters are highly sensitive to cues about what is and is not appropriate to consume (Knight and Boland 1989), the intervention led restrained eaters to prefer any foods that fell underneath the calorie guideline. We find that this heightened preference may occur because restrained eaters believe that foods that fall beneath the calorie guideline are healthier.

To our knowledge, this paper is the first to systematically draw upon the central notion of calorie information as a cue to product healthiness to examine when and which consumers use calorie information to make lower calorie food decisions. In terms of practical contribution, our findings offer explanations for why calorie information often has mixed effects in the real world. In terms of theoretical contribution, our findings indicate that restrained eaters and unrestrained eaters respond differently to a variety of health-goal related cues, including health-goal activation cues and health halos.

REFERENCES


