



Tempting foods and the affordability axiom: Food cues change beliefs about the costs of healthy eating



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ARTICLE INFO

Article history:

Received 2 March 2016

Received in revised form

1 August 2016

Accepted 9 August 2016

Available online 11 August 2016

Keywords:

Cost of healthy eating

Motivated cognition

Food beliefs

Restrained eaters

ABSTRACT

Many consumers report that healthy eating is more expensive than unhealthy eating (the affordability axiom). We hypothesize that endorsement of this belief may be driven by the motivation to eat unhealthy foods. We tested this hypothesis in three studies. Study 1 revealed that the affordability axiom is associated with poorer eating habits and higher Body Mass Index (BMI). Study 2 found that the presence of a tasty food cue in the environment increased endorsement of affordability axiom. Study 3 found that these effects were moderated by one's food intake goals. Food cues led non-dieters to increase endorsement of the affordability axiom, but had the opposite effect among those seeking to restrict their calorie intake. The affordability axiom might persist as a means of validating unhealthy food choices.

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If you ask people whether it is more cost effective to eat healthy foods, such as fruits, vegetables, and whole grains, or less healthful options, such as those with added fats and sugars, many would indicate that the healthier options are more expensive. In a recent survey, for example, one in three respondents reported believing that healthy foods were so expensive that they were unaffordable to those on limited budgets (Lyons, 2014). The belief that healthful foods are more expensive than their less healthful counterparts, which we call the affordability axiom, plays an important role in guiding food choices (Glanz, Basil, Maibach, Goldberg, & Snyder, 1998). Second to taste, cost is one of the primary factors driving consumers' food choices (Brug, Lechner, & De Vries, 1995; Glanz et al., 1998), with the perceived cost of healthy foods being a major contributor to the consumption of less healthy food options (Bowman, 2006; Drewnowski, 2004).

Although many cite the higher cost of healthy foods as a major contributor to unhealthy eating, research does not necessarily support the notion that healthy eating is more expensive than unhealthy eating (Carlson & Frazão, 2012; Chen, Liu, & Binkley, 2012; Golan, Stewart, Kuchler, & Dong, 2008). For example, in

one of the most comprehensive studies of its kind (Carlson & Frazão, 2012), researchers compared the price of healthful and less healthful foods using three price metrics: the price of food energy (\$/calorie), the price of edible weight (\$/100 edible grams), and the price of an average portion (\$/average portion). The results revealed that less healthful foods were *only* more cost effective than healthful foods in terms of their price per calorie. However, consumers typically do not consume food based on its caloric content (Krukowski, Harvey-Berino, Kolodinsky, Narsana, & DeSisto, 2006). Instead, consumers tend to eat based on edible weight and portion size (Rolls, Morris, & Roe, 2002). When measured in this way – which reflects the way that consumers actually consume food – healthful foods were actually found to be *less* expensive than unhealthful foods (Carlson & Frazão, 2012).

The lack of clear evidence supporting the affordability axiom raises the question of why this belief persists in the minds of so many consumers. Why do so many consumers believe that unhealthy foods are more affordable than healthy foods? Here, we hypothesize that this belief may persist due to its ease as a justification for choosing unhealthy foods, which are often more palatable than more healthy options. Research on motivated reasoning shows that psychological motivations often direct reasoning in a way that promotes one's existing beliefs or motivational states (Campbell & Kay, 2014; Ditto & Lopez, 1992; Hill & Durante, 2011; Kunda, 1990). When this occurs, one's memories, interpretations of

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incoming information, evaluations of arguments, and even perceptions are biased in such a way that one will be more likely to arrive at a desired conclusion (see [Kunda, 1990](#); for a review). For example, researchers have found that individuals opposed to 'green' initiatives interpret research providing evidence of climate change with more skepticism than those who are in its favor ([Campbell & Kay, 2014](#)). This biased assimilation of new information is just one of the many ways that our cognitive systems can direct our reasoning to arrive at a desired conclusion.

Guided by these insights, we hypothesized that consumers' food intake goals might play an important role in motivating beliefs about the cost of healthy eating. Specifically, we hypothesized that motivation to eat unhealthy foods would increase endorsement of the affordability axiom. We tested this hypothesis in three studies. First, we tested whether there is a positive relationship between people's eating habits, body mass index (BMI), and endorsement of the affordability axiom. Next, we conducted a series of experiments in which we experimentally manipulated the presence of a tasty food cue and measured endorsement of the affordability axiom. In our first experiment, we examined the impact of the smell of freshly baking chocolate chip cookies on non-dieters' endorsement of the affordability axiom. For non-dieters, the presence of this cue – which is reasoned to activate a consumption goal – is predicted to increase endorsement of the affordability axiom.

In our second experiment, we examined how eating restraint interacts with food cues to impact endorsement of the affordability axiom. Restrained eaters are chronic dieters who are concerned with their weight and seek to restrict the number of calories they consume ([Herman & Polivy, 1980](#)). Because restrained eaters are highly motivated to restrict their caloric intake, they regularly generate effortful cognitive and behavioral defenses in the presence of tempting foods to prevent themselves from indulging ([Boon, Stroebe, Schut, & Jansen, 1998](#); [Herman & Polivy, 1984](#); [Polivy, 1996](#)). Accordingly, if endorsement of the affordability axiom is modulated based on one's food intake goals, we should find that food cues in the environment have opposite effects on restrained compared to unrestrained eaters. Specifically, we should find that tempting food cues lead unrestrained eaters to report *increased* endorsement of the affordability axiom, which would justify consumption of unhealthy foods. Conversely, we should find that food cues lead restrained eaters to report *decreased* endorsement of the affordability axiom, which would help provide a cognitive defense against the temptation posed by unhealthy foods.

1. Study 1

Study 1 was designed to examine the relationship between people's knowledge about nutrition, their eating habits, BMI, and their beliefs about the cost of healthy eating.

1.1. Method

1.1.1. Participants

Participants were 54 workers from Amazon's Mechanical Turk (38 female) ranging in age from 19 to 45 years ($M_{\text{age}} = 30.5$ years, $SD = 7.60$) who participated in the study in exchange for compensation. Sample size was chosen using the procedure described in [Hulley, Cummings, Browner, Grady, and Newman \(2013\)](#) for an expected correlation of 0.37 (estimated from the results reported in [Johnson, Wardle, & Griffith, 2002](#)). The recommended sample size using this calculation was 54 participants.

1.1.2. Materials and procedure

A questionnaire was administered that measured participants' knowledge of nutrition, eating habits/food preferences, height and

weight (for calculating BMI), and their beliefs about the costs of healthy eating. Participants' knowledge of nutrition information was measured by asking participants to respond to the following question: "Do you stay informed about nutrition information?" [1: *not at all*, 7: *very much*]. Healthy eating habits were measured using the Adolescent Food Habits Checklist (AFHC: [Johnson et al., 2002](#)), which assesses eating behavior by asking participants to self-report on their dietary fat and fiber intake, fruit and vegetable consumption, and dietary restraint. We also presented the Health and Taste Attitudes Scale (HTAS: [Roininen, Lähteenmäki, & Tuorila, 1999](#)), which measures the importance of health versus taste when choosing foods. Higher scores on each of these scales indicate that participants made a greater number of 'healthy' responses. We also asked participants to indicate their height and weight, which we used to calculate BMI using standard procedures ($\text{weight (lb)} / [\text{height (in)}]^2 \times 703$). We measured participants' beliefs about the costs of healthy eating by asking them to indicate their agreement with the following statements on a 7-point Likert-type rating scale (1: *strongly disagree*; 7: *strongly agree*): (a) "Fresh fruits and vegetables are expensive," (b) "Eating healthy is expensive," and (c) "Eating junk food is expensive" (reverse scored). The survey closed by asking participants to indicate their age, sex, and socioeconomic status, which we measured to account for its association in both food habits and body weight (see e.g., [Al-Emrani, Stafström, & Östergren, 2013](#)).

1.2. Results

After calculating BMI, we created mean composite variables for participants' beliefs about the costs of healthy eating ($\alpha = 0.73$) and their self-reported healthy eating habits (HTAS: $\alpha = 0.73$; AFCH: $\alpha = 0.82$). We then examined zero-order correlations between participants' beliefs about the costs of healthy eating and: a) their knowledge of nutrition information, b) their healthy eating habits (measured by the HTAS and AFCH), and c) BMI. See [Table 1](#) for correlations. Results revealed a negative correlation between the affordability axiom and knowledge of nutrition information $r(54) = -0.30$, $p = 0.03$, but a positive correlation between the affordability axiom and BMI, $r(54) = 0.27$, $p = 0.05$. Results additionally revealed a negative correlation between the affordability axiom and participants' self-reported healthy eating behavior on both of our measures [AFCH: $r(54) = -0.35$, $p = 0.009$; HTAS: $r(54) = -0.37$, $p = 0.007$]. Nearly identical results were found when controlling for participant SES (i.e., all associations remained significant with the exception of BMI which dropped to $p = 0.09$).

1.3. Discussion

The results of Study 1 provide preliminary evidence that individuals with less healthy eating habits are more likely to endorse the affordability axiom, lending initial support for the notion that

Table 1

Study 1 correlations between individual differences and the affordability myth.

| | Affordability axiom | Adult SES | BMI | Knowledge | HTAS |
|-----------|---------------------|-----------|-------|-----------|--------|
| AFCH | -0.35** | 0.19 | -0.21 | 0.54** | 0.81** |
| HTAS | -0.37** | 0.31* | -0.25 | 0.56** | |
| Knowledge | -0.30* | -0.01 | -0.09 | | |
| BMI | 0.27* | -0.23 | | | |
| Adult SES | -0.27* | | | | |

Note. The affordability axiom refers to participants' endorsement of the belief that unhealthy foods are less expensive than healthy foods. Knowledge refers to participants' self-reported knowledge of nutrition information. Higher scores on the AFCH and HTAS indicate healthier eating habits. * indicates significance at $p \leq 0.05$, and ** $p \leq 0.01$.

beliefs about the high cost of healthy eating may be influenced by inclinations to eat unhealthy foods. Further, we found that endorsement of the affordability axiom was negatively associated with nutrition knowledge and positively associated with BMI. In other words, participants who more strongly endorsed the affordability axiom knew less about nutrition and were heavier than those who did not endorse this belief.

2. Study 2

Study 1 revealed that people with less healthy eating habits were more likely to endorse the affordability axiom. Here, we sought to build on these results, examining the possibility that people's endorsement of the affordability axiom will change in response to cues in the environment that make salient the desire to eat unhealthy foods. To investigate this possibility, we had participants report on their beliefs about the cost of healthy eating in an unscented room or in a room that smelled of freshly baking chocolate chip cookies. We predicted that participants who completed the survey in a room smelling of freshly baked cookies would report increased endorsement of the affordability axiom compared to those who completed the survey in an unscented room. Moreover, we predicted that the presence of a tasty food cue would be a stronger predictor of people's beliefs about the costs of healthy eating than people's reported knowledge of nutrition information.

2.1. Method

2.1.1. Participants

Participants were 63 non-dieting undergraduates (55 female) ranging from 17 to 35 years of age ($M_{\text{age}} = 19.5$ years, $SD = 2.79$). Participants were recruited from the psychology undergraduate participant pool via SONA systems, and all received partial course credit in exchange for their participation. The sex ratio of the psychology participant pool is skewed heavily in favor of females, reflecting the sex ratio of the undergraduate psychology classes. Sample sizes for this experiment and those that follow were chosen based on the recommendation by Cohen that researchers have 30 participants within each testing condition to achieve 80% power (the minimum suggested power for an ordinary study) in cases where the expected effect size is medium to large (Cohen, 1988). Research assistants were instructed to recruit between 30 and 35 participants per testing condition for each study.

2.1.2. Materials and procedure

Participants came into the laboratory and were told that they would be participating in a survey on knowledge about current events and health information. Half of the participants ($n = 30$) filled out the survey in a laboratory room where chocolate chip cookies were being surreptitiously baked in a small oven hidden near the front of the room. The remaining participants completed the survey in the same laboratory room with no cookies baking. After indicating their gender and age, participants were asked to indicate their agreement to the same three items used to measure the affordability axiom in Study 1, as well as the same question measuring the degree to which they stay informed about nutrition. After participants completed the survey, they were thanked, debriefed, and dismissed.

2.1.3. Cookie scent procedure

We created a cookie-scented room by covertly baking cookies in a small oven (Oster toaster oven; model number: TSSTTVDFL1) hidden underneath a desk in the room where participants completed the survey. Sessions were 30 min long and were conducted over a period of several days (3–5 testing sessions were

conducted each day). Each session included between 4 and 8 participants. Twenty minutes prior to each block of daily sessions, the researcher running the experiment baked a batch of six Nestle Toll House Dark Chocolate Delight cookies at 350 °F for precisely 14 min to fill the experiment room with the scent of cookies. To maintain the cookie scent throughout each experiment session, another batch of six cookies was started right before participants entered the room. These cookies were baked at a reduced temperature (300 °F) so that they could stay in the oven for the duration of the 30-min session without burning. A new batch of cookies was baked before each session. To mask the true purpose of the experiment, a handmade sign advertising a club meeting with free cookies was placed at the front of the room. The researcher running the session did not mention the meeting or cookie smell, but if participants inquired, they nonchalantly referred them to the sign. Once all participants finished the survey and exited the room, the researcher removed the cookies from the oven and prepared the next batch for the following session.

2.2. Results

2.2.1. Target analysis

We first averaged together our three items assessing the affordability axiom to create a composite measure of participants' beliefs that healthy eating is expensive ($\alpha = 0.69$). We next examined whether there was an interaction between the testing room and participants' knowledge of nutrition information on participants' beliefs about the costs of healthy eating. To do this, we used a multiple regression model with condition (dummy-coded) and nutrition knowledge (centered) entered as predictors in the first step, and the interaction between these variables entered in the second step. Results revealed that participants who filled out the questionnaire in the cookie-scented room were significantly more likely to believe that healthy eating is more expensive than participants who filled out the survey in the unscented room ($M_{\text{cookie}} = 6.16$, $SD = 0.89$; $M_{\text{control}} = 5.52$, $SD = 1.14$; $t(61) = 2.46$, $p = 0.01$, $d = 0.63$). There was no relationship between participants' nutrition knowledge and endorsement of the affordability axiom ($b = -0.07$, $p = 0.41$), nor was there an interaction between nutrition knowledge and testing room condition ($b = -0.15$, $p = 0.40$) on this variable. Additionally, follow-up tests using a univariate ANCOVA revealed that the main effect of room condition on beliefs about the costs of healthy eating persisted even after controlling for participants knowledge of nutrition information, $F(1, 60) = 7.18$, $p = 0.01$.

2.2.2. Follow-up analyses

Due to the small number of men in our sample, we reran our target analysis 1) without the men in the sample and 2) with the men in the sample, but controlling for participant sex to test whether our effect holds without the men in the sample. The results of these analyses were nearly identical to those reported in the paper. Participants in the cookie scented room reported marginally greater endorsement of the affordability axiom than did participants who completed their surveys in the unscented room [$M_{\text{cookie}} = 6.10$, $SD = 0.91$; $M_{\text{control}} = 5.67$, $SD = 0.89$; $F(1, 52) = 3.82$, $p = 0.056$]. We also reran our analyses with male participants included, but controlling for sex. These results were nearly identical to the results reported in our target analysis, $F(1, 59) = 6.70$, $p = 0.01$.

2.3. Discussion

The results of our experiment indicated that the presence of a tempting food cue led participants to report greater endorsement

of the affordability axiom. These results provide support for the hypothesis that beliefs about the price of healthy eating – rather than being a property of one's food-related knowledge – may be motivated by food intake goals.

3. Study 3

Study 3 was designed to examine whether one's dieting goals interact with environmental food cues to impact beliefs about the costs of healthy eating. Although palatable food cues in the environment are reasoned to promote a food intake goal among unrestrained eaters, restrained eaters respond to food cues by setting up cognitive and behavioral defenses that will help inhibit eating behavior (Boon et al., 1998). Accordingly, if beliefs about the high cost of healthy eating emerge from food intake goals, we should find that food cues in the environment interact with one's level of eating restraint to impact endorsement of the affordability axiom. Specifically, we predicted that palatable food cues in the environment would cause unrestrained eaters to be more likely to endorse the affordability axiom, replicating the result found in Study 2. Conversely, because restrained eaters try to defend themselves from the temptation posed by food, we should find that they respond to palatable food cues by being less likely to endorse the affordability axiom, helping to provide a barrier between themselves and the foods they hope to avoid.

3.1. Method

3.1.1. Participants

Participants were 137 undergraduates (112 female) ranging from 18 to 23 years of age ($M_{\text{age}} = 18.8$ years, $SD = 1.06$). Participants were recruited from the psychology undergraduate participant pool via SONA systems, and all received partial course credit in exchange for their participation. To ensure that we had an even distribution of restrained versus unrestrained eaters in our experiment, we recruited people to participate based on their responses to a pre-screen survey administered at the beginning of the semester. In particular, we recruited participants based on their responses to the following question: "Would you consider yourself to be a restrained eater?" [1: Yes, 2: No]. Based on our targeted recruitment procedure, approximately half of participants in each condition were restrained eaters ($n = 67$, 38 in the cookie-scented room condition).

3.1.2. Materials and procedure

The materials and procedures were the same as Study 2 with one exception. At the end of the study, participants were asked to answer questions measuring their degree of eating restraint. Specifically, participants answered the following questions from the dieting subscale of the restrained eating orientation scale: "Are you dieting right now?" [1: yes, 2: no, reverse scored]; "Would you consider yourself to be a restrained eater?" [1: yes, 2: no, reverse scored]; and "How conscious are you of what you are eating?" [anchors: 1: not at all, 4: extremely] (Polivy, Herman, Younger, & Erskine, 1979). These scores were standardized and averaged to create our continuous measure of eating restraint ($\alpha = 0.60$), with higher values reflecting greater restraint.

3.2. Results

As in our first two studies, we first averaged together our three items to create a composite dependent measure of participants' beliefs that healthy eating is expensive. Next, we used multiple regression to test whether the presence of a tasty food cue would interact with participants' eating restraint scores to impact their

beliefs about the cost of healthy eating. The belief that healthy eating is expensive was regressed on room condition (dummy coded) and participants' restrained eating scores (centered) in the first step, and the interaction between these variables was entered in the second step.

Results revealed a significant interaction between room condition and participants' restrained eating scores, $b = 0.62$ ($SE = 0.21$), $t(133) = 2.93$, $p = 0.004$, partial $r^2 = 0.06$ (see Fig. 1). As was found in our follow-up analysis to Study 2, this interaction remained significant when controlling for sex ($p = 0.007$) and when men were eliminated from the sample ($p = 0.01$). Regions of significance tests revealed that – for unrestrained eaters (1 SD below the mean) – being in the cookie-scented room led to greater endorsement of the belief that eating healthy foods is expensive, $b = -0.51$ ($SE = 0.22$), $t(133) = -2.29$, $p = 0.03$, partial $r^2 = 0.04$ (see Fig. 1). Conversely, for restrained eaters (1 SD above the mean), being in the cookie-scented room led to marginally less endorsement of the belief that eating healthy foods is expensive, $b = 0.42$ ($SE = 0.23$), $t(133) = -1.87$, $p = 0.06$, partial $r^2 = 0.02$. Further, we used the Johnson-Neyman technique to examine the points on the eating restraint scale at which participants' endorsement of affordability axiom begins to differ based on testing condition. This test revealed that being in the cookie-scented room began to predict significantly greater endorsement of the affordability axiom at 0.75 SD below the mean on eating restraint, $b = -0.39$ ($SE = 0.20$), $t(133) = -1.98$, $p = 0.05$ (CI: $-0.78, 0.00$) and began to predict significantly lesser endorsement of the affordability axiom at 1.13 SD above the mean on eating restraint, $b = 0.48$ ($SE = 0.24$), $t(133) = 1.98$, $p = 0.05$ (CI: $0.00, 0.95$).

3.2.1. Additional analyses

Because our measure of restrained eating had marginally acceptable reliability, we also ran our analyses as a 2 (Condition) X 2 (Restrained Eater) univariate ANOVA, where designation as a restrained eater (or unrestrained eater) was determined by the answer to the same one-item measure used to determine their eligibility for participation in the study (i.e., "Would you consider yourself to be a restrained eater?" [1: Yes, 2: No]). Results revealed a significant interaction between Condition and Restrained Eating, $F(1, 133) = 7.21$, $p = 0.008$, with a similar pattern of results as that observed in our target analysis. For unrestrained eaters, completing

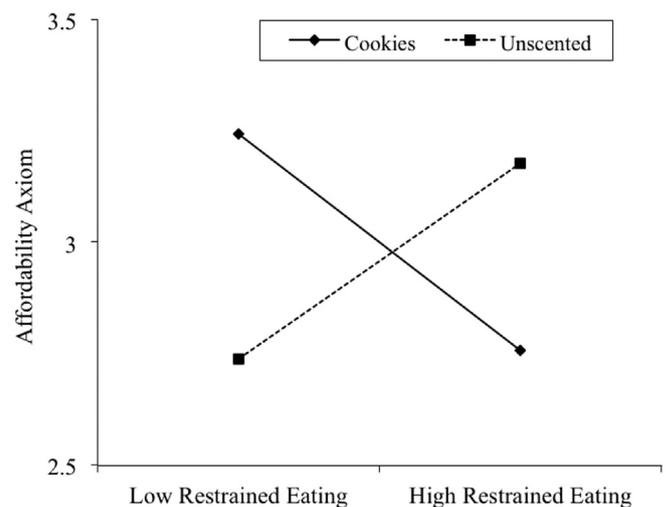


Fig. 1. Participants' endorsement of the affordability axiom as a function of testing room (Cookie Scented versus Unscented) and level of eating restraint (Low versus High). Plotted means represent one standard deviation above and below the mean on self-reported eating restraint.

the questionnaire in the cookie-scented (vs. unscented) room led to greater endorsement of the affordability axiom ($M_{\text{cookie}} = 5.91$, $SD = 0.86$; $M_{\text{control}} = 5.45$, $SD = 0.84$; $F(1, 68) = 5.12$, $p = 0.03$). For restrained eaters, completing the questionnaire in the cookie-scented (vs. unscented) room led to reduced endorsement of the affordability axiom ($M_{\text{cookie}} = 5.42$, $SD = 1.12$; $M_{\text{control}} = 5.80$, $SD = 0.73$; $F(1, 65) = 2.54$, $p = 0.12$). However, this difference was not statistically significant.

As was found with Study 2, participants' nutritional knowledge was not a significant predictor of participants' beliefs about the costs of healthy eating, $b = 0.02$, $p = 0.73$, nor did it interact with any of our predictors ($ps > 0.34$). Importantly, the results of our target analysis remain significant even with the inclusion of this covariate, $b = 0.62$ ($SE = 0.21$), $t(132) = 2.90$, $p = 0.004$.

3.3. Discussion

The results of Study 3 provide additional support for the hypothesis that endorsement of the affordability axiom is motivated, in part, by food intake goals. Among unrestrained eaters, the presence (vs. absence) of a tempting food cue increased endorsement of the affordability axiom, replicating the pattern of results that emerged in Study 2. Among restrained eaters – who create cognitive barriers to prevent themselves from consuming tempting foods – the opposite occurred. Restrained eaters responded to the tempting food cue by reporting lesser endorsement of the affordability axiom.

An unanticipated result of Study 3 was that restrained eaters were more likely than unrestrained eaters to endorse the affordability axiom in the absence of a food cue. Although we did not predict this pattern in advance, it is possible that this pattern emerged precisely because of the hypothesized link between the desire for unhealthy foods and beliefs about their cost. For example, research finds that restrained eaters are more drawn to and preoccupied by thoughts of 'forbidden' foods than are unrestrained eaters, (e.g., Fedoroff, Polivy, & Herman, 1997; Rogers & Hill, 1989). Accordingly, in the absence of palatable food cues – which are the stimuli that trigger food avoidance strategies in restrained eaters (Blechert, Feige, Hajcak, & Tuschen-Caffier, 2010; Nederkoorn & Jansen, 2002) – it is possible that restrained eaters' greater endorsement of the affordability axiom reflects their greater attraction to these foods in the first place. Despite this unanticipated result, the results nonetheless provide continued support for the hypothesis that food intake goals may play an important role in motivating people's beliefs about the cost of healthy eating, with the perceived cost of healthy eating being positively related to factors known to promote consumption of unhealthy foods.

4. General discussion

Many people believe that it is more cost effective to eat unhealthy foods than healthy foods. However, healthy eating can be at least as cost-effective as unhealthy eating, raising the possibility that this belief might persist for other reasons. Guided by research on motivated reasoning (Campbell & Kay, 2014; Ditto & Lopez, 1992; Hill & Durante, 2011; Kunda, 1990), we tested the possibility that the belief that eating healthy foods is more expensive than eating unhealthy foods (which we call the 'affordability axiom') may vary as a function of one's food intake goals.

Across three studies, we found evidence that one's food related motivations may impact consumers' beliefs about the cost of healthy eating. Study 1 found that endorsement of the affordability axiom is associated with a higher BMI and poorer eating habits. The subsequent studies demonstrated that people change their endorsement of the affordability axiom in the presence of a tasty

food cue. In each experiment, non-dieting participants reported greater endorsement of the affordability axiom when in a cookie-scented room than when in an unscented room. Study 3 found that the opposite pattern emerged for participants who are trying to restrict their calorie intake. Restrained eaters reported decreased endorsement of the affordability axiom in the cookie-scented room compared to the unscented room. Together, the results of our studies provide evidence that consumers' beliefs about the cost of healthy eating may be influenced in important ways by their food intake goals. Further, the results of these studies suggest that thinking objectively about food may be challenging for consumers, particularly in contexts with an abundance of palatable food cues.

Although the current studies provide an important first step in establishing a relationship between one's motivational state and their beliefs about the subjective ease of healthy eating, it was limited in a number of important ways. For example, although we found that a tempting food cue increased participants' endorsement of the affordability axiom, we did not measure whether this belief change has an impact on participants' desire to eat unhealthy foods. Future research would benefit from addressing this limitation, as well as examining further the relationship between endorsement of the affordability axiom and participants' SES. Because people with limited financial resources (compared to their wealthier counterparts) are more likely to have to make food purchasing decisions based on price, it is likely that endorsement of the affordability axiom in response to tempting food cues will be greatest for consumers of lower SES.

Future experiments are needed to more fully examine the degree to which one's food intake goals impact their beliefs about food. For example, the current studies were limited in that they only manipulated one palatable food cue: the smell of baking chocolate chip cookies. Future research would benefit from examining whether endorsement of the affordability axiom changes in response to other types of palatable food cues (e.g., visual depictions of cookies or cakes) or in response to healthy food cues (i.e. the smell of citrus). Additionally, future research is needed to examine whether the presence of palatable food cues impacts other food related cognitions, such as one's beliefs about the ease of preparing unhealthy versus healthy foods or beliefs about the relative contribution made by diet versus other factors (e.g., exercise, genes) on outcomes such as obesity risk and health. Despite the limitations inherent in the current contribution, the current research contributes to a growing body of research on motivated perception (Campbell & Kay, 2014; Kunda & Sanitioso, 1989; Kunda, 1990), the impact of environmental cues on food regulation psychology (Chandon & Wansink, 2012; Raghunathan, Naylor, & Hoyer, 2006; Rozin, Fischler, Imada, Sarubin, & Wrzesniewski, 1999; Wansink, Painter, & North, 2005), the differential impact of environmental food cues for restrained versus unrestrained eaters (Fedoroff et al., 1997; Polivy, Herman, & Coelho, 2008), and food choice as consumer behavior (Laran & Salerno, 2013; McFerran & Mukhopadhyay, 2013). The current research highlights the potential difficulty of changing beliefs about the cost of healthy eating, shedding light on the challenges associated with leading people to think objectively about food.

Acknowledgments

We thank Julia Edwards, Deanna Morrison, and Kaye Zani.

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