Feeling judged? How the presence of outgroup members promotes healthier food choices

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Abstract
The present article examines how the presence of others from a different social group (i.e., outgroup audience) influences consumers’ food choices relative to the presence of others from their own social group (i.e., ingroup audience). In four studies, using various types of group memberships (race, university affiliation, and work affiliation), we first find that consumers are more likely to make healthy food choices in the presence of racial (Study 1) and university (Study 2) outgroup (vs. ingroup) audiences. Then, using an experimental causal-chain mediation approach, we show this effect occurs because consumers anticipate more negative judgment from outgroup (vs. ingroup) audiences (Studies 3a and 3b). We discuss the possible role of outgroup contact and diversity in promoting healthy eating.

KEYWORDS
anticipated judgment, food choice, healthy food, impression management, intergroup behavior

1 | INTRODUCTION
The choice and consumption of food often occur in the presence of others (Cruwys et al., 2015; Herman et al., 2003). Beyond providing basic sustenance, food plays an important role in social life (Berger & Rand, 2008; McFerran et al., 2010) and consumers often make inferences about others’ traits and characteristics based on their food choices (Barker et al., 1999). In turn, consumers make strategic food choices to manage the impressions others might form of them (Vartanian, 2015). For example, White and Dahl (2006) find that men are less inclined to choose foods considered feminine (steak labeled “lady’s cut”) compared to gender-neutral foods (steak labeled “chef’s cut”). Furthermore, some audiences elicit more impression management than others (Arigo et al., 2005; Leary & Kowalski, 1990). For example, Ashworth et al. (2005) show that consumers are more likely to use a coupon with a friend than with a date, because they want to avoid seeming cheap to the date.

The present article extends these lines of investigation by examining how the presence of others from a different social group (i.e., outgroup members) influences consumers’ food choices relative to the presence of others from their own social group (i.e., ingroup members). In particular, research shows that making healthy food choices is deemed socially desirable, such that those who consume foods considered healthy (vs. indulgent) are judged more positively overall (Mooijman et al., 2018; Stein & Nemeroff, 1995). We draw from research on intergroup behavior, impression management, and consumer choice to test the proposition that consumers will make healthier (i.e., more socially desirable) food choices in the presence of outgroup (vs. ingroup) members due to impression management motives.

2 | THEORETICAL DEVELOPMENT
Decades of research in social and consumer psychology have documented that people perceive outgroup members less favorably than ingroup members (Allport et al., 1954; Baillet et al., 2014). For example, consumers evaluate advertisements featuring outgroup
members more negatively (Qualls & Moore, 1990) and strategically acquire, use, and discard products to distance themselves from certain outgroups (Berger & Heath, 2008). People are also more likely to attribute a negative behavior or a failure to personal characteristics when evaluating an outgroup (vs. ingroup) member (Hewstone, 1990). Thus, people tend to judge outgroup (vs. ingroup) members more harshly for the same behavior.

People are aware of their biases toward outgroup members (Hahn et al., 2014) and expect outgroup members to have similar biases toward them (e.g., meta-stereotypes; Vorauer et al., 1998). Furthermore, research shows that people are motivated to manage the impressions outgroup members might form of them (Gino et al., 2009). Thus, we propose, consumers will expect outgroup (vs. ingroup) members to judge them more harshly, and because healthy food choices are considered socially desirable, consumers will make healthier food choices in the presence of outgroup (vs. ingroup) members to mitigate the negative judgment they anticipate.

This proposition might seem counter-intuitive as one might expect consumers to be less concerned about the evaluations of outgroup (vs. ingroup) members (Miller, 1996)—for example, because they are less dependent on them for community, friendship, or assistance. However, research shows people give idiosyncrasy credit to their ingroup members, such that they allow their ingroup members a certain degree of behavioral leeway (Hollander, 1958). Thus, in ingroup contexts, where some leniency is expected, consumers might indulge without risking too much interpersonal cost. In contrast, in outgroup contexts, where no such leniency is expected, consumers would ensure that their choices are socially acceptable, to avoid negative judgment and a further loss of interpersonal credit. We summarize our hypotheses below:

**H1:** Consumers will make healthier food choices in the presence of outgroup (vs. ingroup) audiences.

**H2:** This effect of the audience’s group membership on food choice will occur due to more negative anticipated judgment from outgroup (vs. ingroup) audiences.

3 | OVERVIEW OF STUDIES

Four studies tested these hypotheses for real and hypothetical food choices (see Appendix for a pretest of the food options). To rule out the possibility that the hypothesized effects are restricted to specific group memberships, our studies used three different social identities: race, university affiliation, and work affiliation. Consumers have multiple social identities (Saint Clair & Forehand, 2020), which guide their judgments and behaviors. Research shows that people often self-categorize in terms of their race/ethnicity, university affiliation, and work affiliation, such that they distinguish between those who belong to the same group and those who belong to a different group (Balliet et al., 2014). Our studies aimed to explore how sharing an identity with an audience (vs. not) influences consumers’ food choices.

The first two studies examined the effect of the audience’s group membership on participants’ food choices (H1) in the field in the contexts of presumed racial groups (Study 1) and university affiliation (Study 2). We then explored our proposed underlying mechanism (anticipated judgment; H2) using an experimental-causal-chain design. We first manipulated the observer’s group membership through their work affiliation to test its effect on anticipated judgment (Study 3a). We then manipulated anticipated judgment to show its effect on food choice (Study 3b). Unlike purely statistical mediation analyses, an experimental-causal-chain design is more robust to experimental demands and minimizes interferences between measures (Spencer et al., 2005). Specifically, given the social desirability of healthy food choices, the very act of measuring anticipated judgment might interfere with subsequent food choices. Thus, examining the effect of an experimental manipulation of anticipated judgment on food choice (Study 3b, preregistered at AsPredicted.org) provides a more rigorous test of our hypothesis than showing the correlation between anticipated judgment and food choice.

Finally, we estimated a minimum required sample size of 52 participants per experimental condition for studies relying on $t$-tests (66 for $z$ tests) to achieve a power of 0.80 at $p = 0.05$, with estimated effect sizes around $d_{Cohen} = 0.56$ (odds ratio $= 2.76$) (see Duckworth & Kern, 2011). Survey materials, datasets, and the preregistration document for Study 3b are available on the Open Science Framework (https://osf.io/k9j6v/?view_only=4619e6255c9d49128229761fa026b16).

4 | STUDY 1: RACE

Study 1 tested our hypothesis about a relationship between an audience’s group membership and food choice (H1). In the presence of a research assistant (RA; the audience) of the same (vs. a different) presumed race, participants chose between a healthy and an indulgent snack. We predicted participants interacting with an RA of a different (vs. the same) race would be more likely to choose the healthier snack.

4.1 | Methods

4.1.1 | Participants

We recruited 336 adult participants (194 female, $M_{age} = 42.41$, $SD_{age} = 16.79$) in a public space in large city in the United States. We excluded 40 participants who did not reside in the United States (i.e., tourists for whom both RAs may be outgroup members), leaving a final sample of 296 participants.

4.1.2 | Design and procedure

The study employed a two-level (audience’s group membership: ingroup vs. outgroup) between-subjects design. A Black/African
American a White/Caucasian RA, blind to our hypothesis, recruited participants for a study presumably about brand attitudes. To maintain our cover story, participants completed a brand-attitudes survey in which, for five consumer brands (Nike, Apple, Lululemon, The North Face, J. Crew), they answered three brand-identification questions that were not part of our analysis (see Appendix). To determine whether the RA/audience was an ingroup (same race) or outgroup member (different race) to the participant, we asked participants to report their race (check all that apply: 1 = White/Caucasian; 2 = Black/African American; 3 = Asian; 4 = Hispanic, Latino, or Spanish origin; 5 = American Indian or Alaskan Native; 6 = Native Hawaiian or Other Pacific Islander; 7 = Some other race or origin).

At the end of the survey, as our dependent measure, the RA offered participants a choice between a healthier fruit snack (Nothing But The Fruit packet) and a more indulgent chocolate-covered wafer bar (Kit Kat) as a token of appreciation.

4.2 Results

Of the 296 participants, 174 identified as White/Caucasian; 54 as Black/African American; 25 as Asian; 26 as Hispanic, Latino, or Spanish origin; 7 as some other race or origin; 1 as Native Hawaiian or Other Pacific Islander; and 9 selected multiple categories (including 2 who self-categorized as both Black and White). In our first analysis, we included only participants who identified as Black or White (N = 235). We coded as ingroup [outgroup] any responses for which the RA and the participant were of the same [a different] race.

Results showed 103 participants chose a Kit Kat bar, 59 chose a fruit snack, 15 chose both, and 58 chose neither. In all analyses, we coded participants who chose both as having indulged because they should anticipate the same judgment for making the unhealthy choice as those who chose solely a Kit Kat. We excluded 58 participants who chose neither. A logistic regression (N = 177) of choice (1 = fruit, 0 = Kit Kat or both) on audience’s group membership (1 = ingroup, 0 = outgroup) showed a greater proportion of participants in the outgroup condition chose the healthier/fruit snack (41.46%) than in the ingroup condition (26.32%); b = 0.68 (0.32), z = 2.12, p = 0.034, odds ratio = 1.98.

In a second analysis, we included participants of all races (N = 294)—except those who identified as both Black and White—and coded as ingroup [outgroup] any responses for which the RA and the participant were of the same [a different] race. One hundred and thirty-three participants chose a Kit Kat bar, 76 chose a fruit snack, 18 chose both, and 67 chose neither. We again excluded 67 participants who chose neither. We found more participants in the outgroup condition chose the healthier/fruit snack (38.64%) than in the ingroup condition (26.32%); b = 0.57 (0.29), z = 1.93, p = 0.054, odds ratio = 1.76.

4.3 Discussion

This study provided initial evidence for the hypothesized relationship between the audience’s group membership and food choice (H1). Study 1 used two different RAs, such that other physical or personal differences between the RAs may have played a role in the effects documented here (McFerran et al., 2010). To address this limitation, the next study held any such factor constant by using the same RA/audience across conditions.

5 STUDY 2: UNIVERSITY AFFILIATION

Study 2 tested the robustness of the effect of the audience’s group membership on food choice (H1) using another group membership (university affiliation). Participants chose between a healthy and an indulgent snack in the presence of a research assistant (RA; the audience) ostensibly from their university (ingroup) or from another university (outgroup). We predicted more participants in the outgroup (vs. ingroup) condition would choose the healthier snack.

5.1 Methods

5.1.1 Participants

We recruited 180 adult participants (88 female, M_age = 21.59, SD_age = 3.42) on the campus of a large US university.

5.1.2 Design and procedure

The study employed a two-level (audience’s group membership: ingroup vs. outgroup) between-subjects design. A single RA, blind to our hypothesis, approached participants to complete a brand-attitudes survey. Depending on the experimental condition, the RA wore a t-shirt and cap from participants’ own university (ingroup) or from another local university (outgroup). The RA switched attires during each data collection block to randomly assign participants to conditions.

Participants first completed a filler survey, in which they listed the brands with which they personally identify. Next, they answered the same brand-attitude questions as in Study 1 and indicated their affiliation to the university (1 = Undergraduate Student, 2 = Graduate Student, 3 = Faculty, 4 = Staff, 5 = Other). As an exploratory control measure, we also assessed the strength of participants’ ingroup identification by asking them whether (a) their university reflects who they are, and whether (b) they can identify with their university (1 = Strongly Agree; 5 = Strongly Disagree; r = 0.76, p < 0.001).

To capture our dependent measure, the RA offered participants a choice between a snack-size pack of Sun-Maid raisins (healthier option) and a fun-size packet of milk-chocolate M&Ms (indulgent option), ostensibly as a token of appreciation.

5.2 Results

Results showed 109 participants chose the M&Ms, 29 chose the raisins, 4 chose both, and 38 chose neither. As in Study 1, we
coded participants who chose both as having indulged and we excluded 38 participants who chose neither. A logistic regression (N = 142) of choice (1 = raisins, 0 = M&M or both) on the audience’s group membership (1 = outgroup, 0 = ingroup) showed a greater proportion of participants in the outgroup condition chose the healthier snack (30.77%) than in the ingroup condition (11.69%; b = 1.21 (0.45), z = 2.72, p = 0.006, odds ratio = 3.36).

Adding participants’ ingroup identification as a covariate in the above regression did not change the effect of the audience’s group membership on choice (b = 1.27 (0.45), z = 2.82, p = 0.005, odds ratio = 3.57). There was no direct effect of ingroup identification on choice (b = 0.28 (0.23), z = 1.23, p = 0.22, odds ratio = 1.32). We also found no interaction of audience’s group membership × ingroup identification (b = −0.29 (0.45), z = −0.64, p = 0.52, odds ratio = 0.74).

5.3 Discussion

This study provided a conceptual replication of Study 1 and further supported our hypothesis about the effect of the audience’s group membership on participants’ food choice (H1), independent of participants’ ingroup identification. We argue this effect occurs because consumers expect outgroup (vs. ingroup) observers to judge them more harshly. The last two studies explored this proposed mechanism.

6 STUDY 3: ANTICIPATED JUDGMENT

Study 3 used an experimental causal-chain approach (Spencer et al., 2005) to test the proposed psychological process (anticipated judgment) as both an effect of the audience’s group membership (Study 3a) and a predictor of food choice (Study 3b). In Study 3a, participants imagined making an indulgent food choice in the presence of a stranger employed by the same (vs. different) company and indicated their anticipated judgment from this person. We predicted participants would expect harsher judgment from the outgroup (vs. ingroup) observer. In Study 3b, participants imagined choosing between a healthy and an indulgent food option in the presence of a judgmental (vs. nonjudgmental) audience with unspecified group membership. We expected healthier food choices in the presence of judgmental (vs. nonjudgmental) others.

6.1 Study 3a: Methods and results

6.1.1 Participants

We recruited 206 adult participants (86 female, M_{age} = 35.54, SD_{age} = 10.95) online through Amazon’s Mechanical Turk (MTurk).

6.1.2 Design and procedure

The study employed a two-level (audience’s group membership: ingroup vs. outgroup) between-subjects design. Participants read the following scenario in the ingroup (outgroup) condition: Imagine you work for a large company. You are attending a conference where your company and another large company are participating in several industry workshops. Everyone at this event is wearing t-shirts in their company’s color, as it makes it easier to identify to what company each person belongs. You and everyone else from your company are wearing blue t-shirts. As you go from one workshop to the next, you pass several tables with snacks and light refreshments. You approach one of the tables and see plates of fresh fruits, raw vegetables, chips, and cookies. You generally want to eat healthy things and you like carrots, but the cookies look quite tempting. As you are choosing what to take, you notice a group of people standing around. You have not met them before, but you can tell they are co-workers from your company, because they are all wearing blue t-shirts like you (co-workers from the other company, because they are all wearing green t-shirts, unlike you). You notice that one person in the group is looking at you.

To assess anticipated judgment, participants imagined they chose cookies and answered three questions (α = 0.92): "Taking the perspective of the person looking in your direction, to what extent do you believe this person will..." (a) 1 = judge you, 9 = be tolerant toward you; (b) 1 = think negatively of you, 9 = think positively of you; and (c) 1 = have a negative impression of you, 9 = have a positive impression of you). Finally, as an attention check, participants indicated the color of the t-shirt worn by the observer (1 = green, 2 = blue, 3 = red, 4 = yellow, 5 = none of the above). Seventeen participants misremembered this information. We retained these participants in subsequent analyses and note that excluding them did not change the pattern or significance of the results.

6.1.3 Results

As predicted, participants anticipated more negative judgment for their indulgent choice from the outgroup member (M = 4.87, SD = 2.03) than from the ingroup member (M = 5.52, SD = 1.87, t(204) = 2.39, p = 0.018, d_{Cohen} = 0.33).

6.2 Study 3b: Methods and results

6.2.1 Participants

We recruited 200 adult participants from MTurk (125 female, M_{age} = 33.74, SD_{age} = 11.71).

6.2.2 Design and procedure

The study employed a two-level (anticipated judgment: high vs. low). Participants in the high- [low-] judgment condition read the following
scenario: Imagine you work for a large company. You are attending a conference where you are participating in several industry workshops. As you go from one workshop to the next, you pass several tables with snacks and light refreshments. You approach one of the tables and see plates of fresh fruits, raw vegetables, chips, and cookies. As you are choosing between carrots or cookies, you notice a group of people standing around. You have not met them before, but based on your experience at the conference so far, people here tend to be quite intolerant and judgmental [tolerant and non-judgmental]. You notice that one person in the group is looking at you.

This scenario did not mention the observer's group membership to isolate the effect of anticipated judgment on food choice (irrespective of who is judging). As a manipulation check, we measured the same three anticipated-judgment items (α = .87) as in Study 3a, but using 7-point (instead of 9-point) scales. Then, as a measure of choice, participants answered the following question: “Thinking back to the scenario, would you choose a plate with carrots or with cookies?” (1 = definitely carrots, 7 = definitely cookies).

### 6.2.3 | Results

The manipulation check showed that participants in the high-judgment condition (M = 4.50, SD = 1.27) anticipated a harsher judgment than participants in the low-judgment condition (M = 2.97, SD = 1.16, t (198) = 8.90, p < 0.001, d_cohen = 1.26). As expected, participants were more likely to choose the healthier option when observed by a judgmental audience (M = 4.10, SD = 2.12) than when observed by a nonjudgmental audience (M = 5.08, SD = 1.67, t (198) = 3.63, p < 0.001, d_cohen = 0.53).

### 6.3 | Discussion

Study 3a showed participants expected an outgroup (vs. ingroup) member to judge them more harshly, whereas Study 3b showed participants who anticipated harsher judgment made a healthier food choice. Taken together, these studies demonstrated the mediating role of anticipated judgment in the effect of the audience's group membership on food choice (H2).

### 7 | GENERAL DISCUSSION

The present research examined how consumers use healthy food choices to counter the negative judgment they expect from outgroup (vs. ingroup) observers. In four studies, participants were more likely to choose a healthy snack in the presence of an observer of a different presumed race (vs. the same race; Study 1) or one affiliated with a different university (vs. their own university; Study 2), because they anticipated more negative judgment from outgroup (vs. ingroup) audiences (Study 3a) and attempted to mitigate these judgments by making healthier food choices (Study 3b).

### 7.1 | Theoretical implications

This study is at the intersection of research on social influence and food choice and makes several contributions to both literatures. First, previous investigations of social influences on food choice varied the audience’s characteristics in ways that provided consumers with information about what the audience deemed desirable. For example, consumers adjust the amount of food they eat based on the amount others are choosing, thus assimilating (or contrasting) their food consumption to that of others (Herman et al., 2003; McFerran et al., 2010). Other studies show that the body weight, healthiness, and gender of an observer affects food choices by signaling something about the observer’s values and food preferences (McFerran et al., 2010). Huneke et al. (2015) find that consumers gravitate toward indulgent menu items when served by a waitress whose appearance signals an unhealthy (vs. healthy) lifestyle. In contrast, our studies provide no information about the audience’s values or preferences. Yet, we find that consumers form assumptions about the audience’s likely judgment of them based on group membership, and use healthy food choices to counter the more negative judgment they anticipate from outgroup (vs. ingroup) audiences.

Second, it is well documented that consumers choose healthy foods to reap personal benefits such as enjoyment or good health (Woolley & Fishbach, 2016) or to signal desired traits (e.g., I am health-conscious, I am manly; Touré-Tillery & Wang, 2022; White & Dahl, 2006). Our work identifies impression management as an important driver of healthy food consumption. Specifically, we show that consumers are more likely to make healthy food choices in the presence of outgroup (vs. ingroup) observers because they anticipate more negative judgment (Study 3). More generally, we would expect that in contexts where consumers anticipate negative judgment (e.g., a highly competitive workplace), they will be more likely to make healthy food choices. In contrast, in contexts where consumers anticipate positive judgment (e.g., a highly cooperative group of volunteers), they will be less likely to make healthy food choices. The implication is that factors that make ingroup members seem more judgmental (e.g., external information, prior interaction) will increase healthy food choices in their presence, whereas factors that make outgroup members seem less judgmental will decrease healthy food choices in their presence.

Third, although we have focused on how the presence of outgroup (vs. ingroup) observers increases healthy food choices, we expect this effect to extend to other socially desirable behaviors. For example, a consumer might be more likely to choose a highbrow entertainment option (e.g., chess app) instead of a lowbrow one (e.g., candy crush) or might exhibit more polite behavior in the presence of an outgroup (vs. ingroup) audience. Although past research has tested how impression management differs between friends and strangers (Tice et al., 1995), less is known about the difference in impression management in the presence of ingroup versus outgroup strangers. Future research could explore more generally how anticipated judgment influences consumers’ behaviors in contexts beyond food choice.
Finally, research has documented many psychological benefits of diversity (i.e., the inclusion of people of different races, ethnicities, genders, and sexual orientations) in various contexts (Ellemers & Rink, 2016). Our research identifies yet another benefit of diversity: promoting healthier food choices. We recognize, however, that this positive consequence stems from a potentially biased perception of outgroup members as harsher judges. Future research could delve deeper into this perception and its downstream consequences for impression management in intergroup relations. For example, do consumers believe that their healthier food choices successfully alleviate the harsher judgment they anticipate from outgroup observers? Do consumers subsequently expect more positive interactions with such outgroup members?

7.2 Practical implications

Our findings have several practical implications for marketers of healthy foods and for policy makers seeking to promote healthy food consumption. First, our results suggest that healthy foods may be advertised and sold more effectively in settings that provide frequent outgroup contact and hence where consumers would be more willing to make healthy food choices. Moreover, because people belong to a variety of social categories, what constitutes “outgroup contact” can vary along dimensions such as race, work affiliation, or school affiliation.

Second, our findings indicate that marketers and public policy makers considering where to spend limited resources to promote healthy food consumption may need to focus their efforts on settings in which people have limited outgroup contact or low impression-management concerns—because unhealthy choices may be especially prevalent in such contexts. Furthermore, in settings that offer limited outgroup contact, efforts to promote healthy food consumption could benefit from increasing diversity in other ways within the choice context (e.g., by employing brand representatives from diverse social backgrounds).

Finally, given the important role of anticipated judgment in healthy food consumption, marketers and public policy makers may promote healthy food choices by communicating the potential interpersonal benefits of such choices: avoid negative judgment, make a better impression on everyone.

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DATA AVAILABILITY STATEMENT

All anonymized data sets are available on the Open Science Framework at: https://osf.io/k9j6v/?view_only=4619e6255c9d49128229761fa026b618.

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**SUPPORTING INFORMATION**

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