

ADVERTISING OPINIONS

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Advertisements of many goods and services feature testimonials from consumers who have had atypically positive experiences with them. However, substantial evidence suggests that consumers often erroneously assume that advertised atypical results are typical. Thus, the Federal Trade Commission (“FTC”) requires advertisements of atypical results also to disclose the typical results. However, the FTC has created an exception for advertisements featuring atypically positive opinions regarding a product. The exception exists because the FTC assumes that consumers believe that advertised opinions only necessarily represent the opinions of the people expressing the opinions, not the typical consumer opinion regarding the product. To test the FTC’s assumption, we conduct two controlled experiments. We find evidence that, contrary to the FTC’s assumption, consumers often believe that an advertised opinion is the typical consumer opinion. In addition, we find evidence that requiring these advertisements to also disclose the typical consumer opinion would cause consumers to greatly discount advertised atypical opinions.

I. INTRODUCTION

In August 2019, Burger King began selling nationwide the Impossible Whopper, which uses a patty made from plants rather than beef.¹ In support of the product, Burger King released a video advertisement featuring testimonials from customers who tasted the Impossible Whopper without knowing it was meat-free. When told that they had just tasted a meat-free Whopper, the customers expressed disbelief, making comments such as it “tastes just like a Whopper,” “tastes just like a classic Whopper,” and “I can’t believe that was not beef.”²

The advertisement’s message is obvious: the meatless Impossible Whopper tastes the same as the classic, beef-patty Whopper.³ However, although every consumer appearing in the advertisement expresses this belief, the advertisement does not explicitly claim that this is the typical opinion of people who try the Impossible Whopper. In fact, a small, faint disclaimer appears at the bottom of the advertisement for approximately two seconds: “Real people. Real opinions. Opinions can vary.”

Interestingly, even such a mild disclaimer as “opinions can vary” is not legally required. Rather, the Federal Trade Commission, which regulates such testimonial advertisements, assumes that consumers believe that an advertised testimonial expressing an opinion about a product only necessarily reflects the opinion of that person, not the typical opinion regarding the product. This article presents the results of two experiments we conducted that indicate that the FTC’s assumption is often incorrect.

1. Danielle Wiener-Bronner, *The Impossible Whopper is coming to every Burger King in America next week*, CNN, (Aug. 1, 2019, 9:17 AM), <https://www.cnn.com/2019/08/01/business/impossible-whopper-national/index.html>.

2. A version of the advertisement is available on YouTube. *Burger King Commercial 2019 – (USA)(1)*, YOUTUBE, <https://www.youtube.com/watch?v=Un3PDPXpYPE> (last visited May 1, 2020).

3. See Chris Joseph, *Techniques for Testimonials in Advertising*, HOUSTON CHRONICLE, <https://smallbusiness.chron.com/techniques-testimonials-advertising-11792.html> (The “man-on-the street” interview is a testimonial technique to help consumers identify with a product. Rather than offering the opinion of a celebrity or expert to build credibility, this method attempts to show customer satisfaction by a user who in many ways resembles members of the target audience. The interview subject is asked to try a new product, and is shown to enjoy the experience. The message conveyed is, “If this person likes it, you will, too.”).

Advertisements for a variety of goods and services often feature testimonials from consumers who have used them.⁴ In these testimonials, the consumers describe their experiences with the advertised products. Of course, advertisers do not randomly select which consumers to use in the advertisements.⁵ Rather, the advertisements present only consumers who had very positive experiences.

Because of this selection bias, an advertised testimonial truly conveys almost no useful information to consumers. It merely shows that there exists at least one person who had a positive experience with the product. This fact should be virtually meaningless to a reasonable consumer. However, a large percentage of consumers assume that the testimonial reflects the typical consumer experience with the product, or at least an experience that is more typical than it truly is.⁶

Because of this, the Federal Trade Commission (“FTC”) closely regulates advertisements presenting testimonials claiming positive results from using a product, such as someone claiming to have lost thirty pounds by using a particular weight-loss product.⁷ In particular, the FTC requires advertisements that present atypical results to also disclose the typical results.⁸ Importantly, however, the FTC does not impose this requirement on advertisements presenting a user’s atypical subjective opinion regarding the advertised product.⁹ The FTC created this exception because regulators assume that consumers believe that an advertised opinion only necessarily reflects the view of the person expressing the opinion, rather than the typical opinion regarding the product.¹⁰ However, there are many reasons to suspect that the FTC’s assumption is incorrect and that consumers might be misled by advertisements of atypical opinions as well.¹¹

This article presents two controlled experiments investigating whether consumers assume that an advertised opinion is the typical consumer opinion about the product. The experiments also examine whether requiring disclosure of the typical opinion would cause consumers to discount an advertised atypical opinion.

Participants in the first experiment read a version of an advertisement for a frozen pizza featuring a consumer endorser who stated that the frozen pizza tastes as good as

4. AM. ASS’N OF ADVERT. AGENCIES & AM. ADVERT. FED’N, *Comments Submitted for the FTC Endorsement Guides Review* 9 (Mar. 2, 2009), available at http://www.ftc.gov/sites/default/files/documents/public_comments/guides-concerning-use-endorsements-and-testimonials-advertising-539124-00008/539124-00008.pdf (“endorsements and testimonials are used throughout the entire advertising industry, by almost each and every advertiser, regardless of the product category.”); Marina Moskowitz & Marlis Schweitzer, *Introduction: “The Spirit of Emulation,”* in *TESTIMONIAL ADVERTISING IN THE AMERICAN MARKETPLACE: EMULATION, IDENTITY, COMMUNITY* 1, 2 (Marlis Schweitzer & Marina Moskowitz eds., 2009) (“testimonial advertising has remained a prominent and popular marketing strategy, even today as consumers become increasingly savvy about the industry’s manipulative practices.”).

5. Moskowitz & Schweitzer, *supra* note 4, at 1, 3 (“Of course, there is no doubt that those responsible for advertising carefully edit and select consumer testimonials; testimonials nonetheless carry an aura of authenticity for many readers and viewers that sets them apart from other advertising strategies. For while all advertisements offer the promise of the product in some form or another, testimonials confirm that this promise comes true.”).

6. *Infra* Section II.

7. The FTC’s approach to these advertisements is discussed in detail in Section III of this article.

8. *Infra* pp. 85–87.

9. *Infra* pp. 87–88.

10. *Id.*

11. *Infra* Section IV.

pizza served in restaurants. Versions of the advertisement differed in whether the advertisement also disclosed the results of a consumer survey that showed that the endorser's opinion was typical or atypical.

Participants in the second experiment read a version of an advertisement for a cruise line featuring a couple who stated that the advertised cruise line is the best of the many cruise lines on which they have vacationed. As in the first experiment, versions of the advertisement differed in whether the advertisement also disclosed the results of a consumer survey that showed that the endorsers' opinion was typical or atypical.

After reading the advertisements, participants in each experiment stated how likely they would be to purchase the advertised product, their opinion of the product's quality, how typical they consider the opinion of the endorser[s] to be, and their own perceptions of what the advertisement conveys.

Using these two very different products allows testing of whether the response to an advertised opinion depends at least in part on the degree of consumer involvement in the purchase decision. In other words, consumers are likely to engage in more careful consideration before booking a cruise than before buying a frozen pizza and thus might be less likely to respond to a single advertised opinion regarding a cruise than regarding a pizza. Indeed, the experiments' results differed substantially.

The results indicate that advertising a consumer's positive opinion about a product can be an effective marketing tool. In particular, the advertised testimonial was very effective in the pizza advertisement. More importantly, contrary to the FTC's assumption, the results indicate that participants assumed that the advertised opinion in the pizza advertisement was the typical consumer opinion regarding the pizza. In contrast, the testimonial was not effective in the cruise advertisement, apparently because participants did not assume that that testimonial reflected the typical consumer opinion. In addition, for both the pizza and the cruise advertisements, disclosing that the advertised opinion was atypical caused participants to have much more negative views of the advertised product.

These results indicate that, at least for products for which consumers make relatively quick purchase decisions, consumers assume that an advertised opinion is typical. The results also suggest that consumers could benefit if the FTC were to extend its disclosure requirements to advertisements of opinions.

The next three sections of this article present brief background information. Section II presents existing evidence that people are misled by advertising of atypical objective results. Section III explains how the FTC regulates advertising of atypical objective results to help prevent consumers from being misled by that advertising. Section IV discusses why consumers also might be deceived by advertising of atypical subjective opinions regarding a product.

Next, Sections V and VI present the experiments that we use to test whether consumers are misled by advertising of atypical opinions and whether mandating disclosure of the typical opinion can reduce this problem. Finally, Section VII discusses the experiment's findings and their implications for regulating advertising of opinions.

II. CONSUMERS ARE MISLED BY ADVERTISEMENTS OF ATYPICAL RESULTS

Advertisements featuring the results of people who have used the advertised product are common.¹² They are used for products ranging from weight-loss programs to mutual funds. Advertisers generally do not randomly select which users' results to include in the advertisement. Instead, these advertisements reflect a selection bias; in particular, they feature atypically positive results from using the products. For example, advertisements for weight-loss products often feature people who lost large amounts of weight using the products even though the vast majority of users lose little, if any, weight.¹³ Similarly, mutual fund companies' advertisements regularly feature the returns of their highest-performing funds while failing to mention their other funds, which did not perform as well.¹⁴

These advertisements are effective in large part because consumers and investors engage in selection neglect. That is, people do not sufficiently discount the advertised results for the selection bias. As a result, people tend to overestimate typical results as well as their own likely results from using the advertised product.¹⁵ Such miscalculations might make people more likely to purchase the product than if they had accurate expectations, leading to poor purchase and investing decisions. For example, consumers might be induced to purchase the advertised weight-loss product rather than a more effective, less expensive, or safer one.¹⁶ In addition, investors might be induced to invest in the advertised mutual fund rather than one that is less costly or is better suited to the investor's investment objectives and risk tolerance.¹⁷

There are many possible reasons why people engage in selection neglect and thus

12. State Attorneys General, Comment Letter regarding the FTC's review of its Guides Concerning the Use of Endorsements and Testimonials in Advertising, 16 C.F.R. Part 255 (June 18, 2007), *available at* <http://s3.documentcloud.org/documents/468971/state-ags-letter-to-federal-trade-commission.txt> ("Endorsements are commonly used in connection with print advertisements and television infomercials. In both settings, there is a significant potential for consumers to assume that the person who appears on the page or screen and claims a positive result from the advertised product or service is in fact describing what he or she achieved, and what the majority of the public can typically expect to achieve.")

13. FTC, 2004 WEIGHT-LOSS ADVERTISING SURVEY 7 (Apr. 2005), <http://www.ftc.gov/reports/2004-weight-loss-advertising-survey-report-staff-federal-trade-commission>.

14. Jonathan J. Koehler & Molly Mercer, *Selection Neglect in Mutual Fund Advertisements*, 55 MGMT. SCI. 1107, 1110 (2009).

15. Koehler & Mercer, *supra* note 14, at 1112–13, 1116; MANOJ HASTAK & MICHAEL MAZIS, EFFECTS OF CONSUMER TESTIMONIALS IN WEIGHT LOSS, DIETARY SUPPLEMENT AND BUSINESS OPPORTUNITY ADVERTISEMENTS 6 tbl.4, 9 tbl.6 (Sept. 22, 2004).

16. *See, e.g.*, Edith Ramirez, Chairwoman & Julie Brill, Commissioner, Statement regarding *In the Matter of GeneLink, Inc. and foru International Corporation* 4 (Jan. 7, 2014), <http://www.ftc.gov/sites/default/files/documents/cases/140107hgcdirectstatementbrill.pdf> ("Consumers who rely on respondents' [false weight-loss] claims may forgo important diet and lifestyle changes that are known to reduce the risk of diabetes, heart disease, or arthritis. Or they may forgo treatments that, unlike respondents' products, have been demonstrated to be effective. In addition, respondents charge a premium, over \$100 per month, for their customized products. Consumers, therefore, may be deceived both to their medical and economic detriment when a safe product provides an ineffective treatment."); *see also* FTC v. QT, Inc., 512 F.3d 858, 863 (7th Cir. 2008) (noting that a safe but deceptively advertised treatment "will lead some consumers to avoid treatments that cost less and do more; the lies will lead others to pay too much for [treatment] or otherwise interfere with the matching of remedies to medical conditions").

17. *See* Koehler & Mercer, *supra* note 14, at 1113 (experiment finding that selection bias in a mutual fund advertisement made people more likely to invest in the fund).

are deceived by these advertisements. For example, some people might not realize that the advertisements contain selection biases. Someone who erroneously believes that advertisers choose to advertise only typical results would have no reason to discount the results. However, although there might be some people who do not know that advertisements contain selection biases, evidence indicates that people generally are aware of them.¹⁸

For several reasons, however, even people who are aware of a selection bias might not sufficiently discount the advertised atypical result. First, the sample highlighted in an advertisement is vivid and concrete. In contrast, the rest of the population from which the sample is drawn does not appear in the advertisement. This difference likely causes consumers to focus on the advertised sample.¹⁹

Second, people's employment of the availability heuristic can lead them to overestimate the probability that they themselves will also achieve an advertised atypical result. The availability heuristic is a mental shortcut whereby people evaluate the probability of an event occurring by how easily occurrences of the event come to mind.²⁰ For example, because airplane accidents receive prominent media coverage, examples of them come to mind quickly, so people overestimate the likelihood of airplane accidents.²¹ Because a testimonial provides viewers with a vivid, ready example of someone who attained atypically positive results from a product, it can cause consumers to overestimate the probability of they themselves achieving such a result.

Third, when people employ the representativeness heuristic, they evaluate the likelihood of an instance being representative of a category by the degree to which the instance resembles, or is similar to, prototypical examples of the category.²² Thus, if the advertised person claiming very positive results resembles a prototypical "typical" person or if the advertised product resembles that which people tend to endorse, viewers of the advertisement might be likely to think that the advertised results are typical.

Fourth, people tend to accept information at face value rather than think about why it is unreliable. Rejecting advertised data as biased requires effort: the mental construction and consideration of the sample space (i.e., the range of actual results) from which the advertised sample is drawn.²³ For example, imagine that a consumer sees a weight-loss product advertisement featuring someone who lost thirty pounds even though most product users lose little weight. To avoid being deceived by the selection bias in the advertisement, the consumer would have to exert the effort to think about product users—who are not mentioned in the advertisement—who did not lose as much weight. Many people do not exert this effort because "sample space construction is notoriously unnatural because it

18. See *id.* at 1115 (vast majority of participants in a study believed that a large mutual fund company chose to advertise its better-performing funds).

19. See Joshua D. Blank, *In Defense of Individual Tax Privacy*, 61 EMORY L.J. 265, 289 (2011) (discussing why vivid examples in advertisements are effective).

20. Amos Tversky & Daniel Kahneman, *Judgment under Uncertainty: Heuristics and Biases*, 185 SCI. 1124, 1127 (1974).

21. Howard Latin, *Good Warnings, Bad Products, and Cognitive Limitations*, 41 UCLA L. REV. 1193, 1233 (1994).

22. Tversky & Kahneman, *supra* note 20, at 1124.

23. Koehler & Mercer, *supra* note 14, at 1108.

requires attention to nonoccurrences of the event of interest.”²⁴

Finally, even people who are thinking about a selection bias in an advertisement can be misled by it. For example, an astute consumer might correctly assume that a person who lost thirty pounds and is featured in a weight-loss product advertisement attained an atypical result. However, because of anchoring effects, people are influenced by information they receive—such as an advertised result—even if they know the information is irrelevant or unreliable and should be ignored.²⁵

The misleading effect of advertising atypical results likely also is compounded by consumers’ optimism biases. People tend to expect their own results will be better than the typical results. Indeed, overoptimism occurs across a wide variety of contexts, ranging from overestimating the probability of outliving one’s peers to underestimating the probability of getting fired or divorced.²⁶ So if consumers misunderstand an advertisement as presenting typical results, they generally will believe that they will achieve better than the advertised results.

III. FTC REGULATION OF ADVERTISING OF ATYPICAL RESULTS

Because of the capacity of atypical results to deceive consumers, the FTC closely regulates the advertisement of atypical results. Section 5 of the Federal Trade Commission Act prohibits “[u]nfair methods of competition in or affecting commerce, and unfair or deceptive acts or practices in or affecting commerce.”²⁷ The FTC has issued its Guides Concerning the Use of Endorsements and Testimonials in Advertising (“Guides”) to provide guidance to advertisers and endorsers regarding how Section 5 of the Federal Trade Commission Act applies to endorsements and testimonials. Officially, the Guides are not law, but rather only present the FTC’s interpretation of Section 5. In practice, however, they are “essentially treated as law by the courts and by the advertising community, which is well aware that any non-compliance would result in FTC action.”²⁸ The Guides state that a testimonial relating to a consumer’s experience regarding a key attribute of a product or service

will likely be interpreted [by the FTC] as representing that the endorser’s experience is representative of what consumers will generally achieve with the advertised product or service in actual, albeit variable, conditions of use. Therefore, an advertiser should possess and rely upon adequate substantiation for this representation. If the advertiser does not have substantiation that the endorser’s experience is representative of what consumers will generally achieve, the advertisement should clearly and conspicuously disclose the generally

24. *Id.* (citation and emphasis omitted).

25. Tversky & Kahneman, *supra* note 20, at 1128; Fritz Strack & Thomas Mussweiler, *Explaining the Enigmatic Anchoring Effect: Mechanisms of Selective Accessibility*, 73 J. PERSONALITY & SOC. PSYCHOL. 437, 437 (1997) (“In current psychological research, few phenomena are easier to demonstrate and harder to explain than the so-called *anchoring effect*, a biased estimate toward an arbitrary value considered by judges before making a numerical estimate.”).

26. See, e.g., Neil D. Weinstein, *Unrealistic Optimism About Future Life Events*, 39 J. PERSONALITY & SOC. PSYCHOL. 806, 810 (1980) (finding overoptimism across a wide range of possible positive and negative life events).

27. Federal Trade Commission Act, Pub. L. No. 203, 38 Stat. 717, 719 (codified as amended at 15 U.S.C. § 45(a)(1) (2006)).

28. American Association of Advertising Agencies and American Advertising Federation, *supra* note 4.

expected performance, and the advertiser must possess and rely on adequate substantiation for that representation.²⁹

In other words, the FTC likely will interpret a testimonial as representing that the claimed results are typical, so an advertisement featuring a testimonial from someone claiming atypical results from a product also must disclose the typical results. For example, the FTC likely will deem a weight-loss product advertisement featuring someone who lost thirty pounds as implying that users of the product generally lose about thirty pounds. Unless the advertiser can substantiate this implication, the advertisement would also have to disclose how much weight users of the product actually generally lose.

This requirement is based in large part on the FTC's experience in litigated cases and on the results of two studies³⁰ conducted for the FTC.³¹ Those studies found that a substantial percentage of consumers assumed that advertised atypical results were typical of what consumers could expect to achieve from using the advertised product. For example, one of the studies conducted an experiment in which participants viewed a version of a weight-loss product advertisement featuring testimonials from people who claimed large weight loss from using the product.³² When the testimonials claimed twenty-four to thirty-six pound weight loss, 58% of participants believed the advertisement communicated that new users of the product could expect to lose at least twenty-four pounds³³ and 67% of participants themselves believed that new users could expect to lose at least twenty pounds.³⁴ Similarly, when the testimonials claimed forty-eight to seventy-two pound weight loss, 69% of participants believed that the advertisement communicated that new users could expect to lose at least forty-eight pounds³⁵ and 39% of participants believed that new users could expect to lose at least forty pounds.³⁶

The studies also found that having the advertisements disclose typical results reduced these misconceptions. For example, having the advertisement also contain a disclosure that “[t]he average [product] user loses about ten pounds in three months” caused consumers to have substantially lower expectations regarding likely results. In particular, only 46% of the participants viewing the twenty-four to thirty-six pound weight loss testimonials believed that new users could expect to lose at least twenty pounds, and only 10% of the participants viewing the forty-eight to seventy-two pound weight loss

29. 16 C.F.R. § 255.2(b) (2011).

30. MANOJ HASTAK & MICHAEL MAZIS, THE EFFECT OF CONSUMER TESTIMONIALS AND DISCLOSURES ON AD COMMUNICATION FOR A DIETARY SUPPLEMENT (Sept. 30, 2003); HASTAK & MAZIS, *supra* note 15, at 6 tbl.4, 9 tbl.6.

31. Guides Concerning the Use of Endorsements and Testimonials in Advertising, 73 Fed. Reg. 72,374, 72,378 (Nov. 28, 2008) (to be codified at 16 C.F.R. pt. 255) (citing those cases and studies as “support[ing] the Guides’ position that consumers interpret advertisements containing endorsements as representing that the results achieved by the endorsers are generally representative of what new users can expect.”).

32. HASTAK & MAZIS, *supra* note 15, at 1–2.

33. *Id.* at 6.

34. *Id.* at 9.

35. *Id.* at 6.

36. *Id.* at 9. The studies also included experiments involving testimonial advertisements for other products (dietary supplements and business opportunities). Like the weight-loss product advertisement experiment, those experiments found that a substantial percentage of consumers assumed that the testimonials reflected typical results. For a summary of those results, see Ahmed E. Taha, *Selling the Outlier*, 41 J. CORP. L. 459, 467 (2015).

testimonials believed that new users could expect to lose at least forty pounds.³⁷

The disclosure of typical results did not completely prevent consumers from being misled by the advertisement of atypical results. For example, when the advertisement explicitly stated that the average user loses only “about 10 pounds,” 46% of the participants viewing the twenty-four to thirty-six pound weight loss testimonials and 42% of the participants viewing the forty-eight to seventy-two pound weight loss testimonials still believed that new product users could expect to lose at least twenty pounds.³⁸

In summary, the FTC requires advertisements featuring testimonials of atypical results to also disclose the typical results. This requirement is based at least partly on evidence that these disclosures reduce—but do not nearly eliminate—the misleading effect of atypical testimonials on consumers.

Importantly, however, the FTC has created an exception for advertisements that feature product users’ typically positive *opinions* about the product. The Guides give an example to illustrate this exception:

An advertisement for a recently released motion picture shows three individuals coming out of a theater, each of whom gives a positive statement about the movie. These individuals are actual consumers expressing their personal views about the movie. The advertiser does not need to have substantiation that their views are representative of the opinions that most consumers will have about the movie. *Because the consumers’ statements would be understood to be the subjective opinions of only three people, this advertisement is not likely to convey a typicality message.*³⁹

Thus, the FTC assumes that consumers do not believe that an advertised subjective opinion is necessarily the typical consumer opinion. However, the FTC appears to prohibit claiming that a particular opinion is typical, absent substantiation for such a claim. The Guides give an example of such an advertisement:

An advertisement presents the results of a poll of consumers who have used the advertiser’s cake mixes as well as their own recipes. The results purport to show that the majority believed that their families could not tell the difference between the advertised mix and their own cakes baked from scratch. Many of the consumers are actually pictured in the advertisement along with relevant, quoted portions of their statements endorsing the product. The use of the results of a poll or survey of consumers represents that this is the typical result that ordinary consumers can expect from the advertiser’s cake mix.⁴⁰

Both the movie and cake mix advertisements feature particular consumers’ opinions. The FTC interprets the addition of the poll results in the cake mix advertisement as conveying that the advertised opinions are typical. Also, the FTC implies that the absence of poll results in the movie advertisement prevents that advertisement from conveying that the advertised opinions are typical. In contrast, the FTC believes that advertisements featuring particular customers’ objective experiences (such as a thirty-pound weight loss) automatically convey those experiences’ typicality even in the absence of additional information regarding its typicality, such as a poll.

37. HASTAK & MAZIS, *supra* note 15, at tbl.3.

38. *Id.*

39. 16 C.F.R. § 255.2(c) (2011) (emphasis added).

40. *Id.*

In summary, based on empirical evidence, the FTC believes that consumers erroneously regard advertised atypical experiences (such as thirty-pound weight losses) as being typical. Thus, the FTC requires advertisements of atypical results also to disclose the typical results. In contrast, however, the FTC merely assumes that consumers do not regard advertised atypical opinions as being typical. The next section of this article discusses reasons to suspect the FTC's assumption is incorrect.⁴¹

IV. WHY CONSUMERS MIGHT BE MISLED BY ATYPICAL OPINIONS

Evidence exists that a substantial percentage of people view advertised atypical objective results as being typical, or at least underestimate the results' atypicality.⁴² As discussed above, there are many possible reasons for this.⁴³ Many of these reasons, however, might equally apply to advertised atypical opinions. First, some consumers might not know that advertisers select endorsers who have atypically positive opinions about the advertised product, causing the advertisement to reflect a selection bias. Also, an advertised opinion provides a vivid, ready example of someone with that opinion. Because of the availability heuristic, this might cause viewers of the advertisement to overestimate the probability that other people hold the same positive opinion about the product.⁴⁴ Furthermore, common employment of the representativeness heuristic suggests that if the person expressing the opinion resembles a prototypical "typical" person, or if the advertised product resembles a product that people tend to endorse, viewers of the advertisement might be likely to think that the opinion is typical.⁴⁵ In addition, anchoring can cause an advertised opinion to affect even consumers who are fully aware that the opinion is atypical and wish to ignore it.⁴⁶ Finally, recall that people have a tendency to accept presented information at face value rather than make the effort to think about why it might be unreliable.⁴⁷ Such a tendency might apply to advertised opinions as well as to advertised objective results.

In addition, there even are reasons to believe that consumers might put greater weight on advertised opinions than on advertised objective results. First, there exists pervasive innumeracy (i.e., numerical illiteracy) and general skepticism about statistics,⁴⁸ so people can understand expressed opinions much easier than objective results. Not only is ease of mental processing likely to enhance attention and memory for the expressed

41. The FTC does not explicitly define the distinction between a consumer's experience with a product and a consumer's opinion about a product. However, the examples used by the FTC in the Guides suggest that the FTC considers an experience to have objective content that can be supported by evidence, while an opinion has only subjective content. For this article, we accept that definition. In reality, the distinction between a fact and an opinion has been the subject of much philosophical speculation. See, e.g., John Corvino, *The Fact/Opinion Distinction*, PHILOSOPHERS' MAGAZINE, (Mar. 4, 2015), <https://www.philosophersmag.com/essays/26-the-fact-opinion-distinction>.

42. See *supra* pp. 86–87.

43. See *supra* pp. 83–85.

44. See *supra* notes 20–21 and accompanying text (discussing the availability heuristic).

45. See *supra* note 22 and accompanying text (discussing the representativeness heuristic).

46. See *supra* note 25 and accompanying text (discussing anchoring).

47. See *supra* note 23 and accompanying text (discussing tendency to accept information at face value).

48. Omri Ben-Shahar & Carl E. Schneider, *The Failure of Mandated Disclosure*, 159 U. PA. L. REV. 647, 712 (2011).

opinions of others, but such ease is also associated with greater certainty in one's judgments.⁴⁹

Second, expressions of opinions imply conviction, confidence, and certainty in the opinions. People often refrain from publicly expressing their opinions if they lack certainty in those opinions because much cognitive dissonance can emerge from publicizing one's opinions if they are "wrong" or lack support.⁵⁰ Thus, expressing an opinion in an advertisement is "sticking one's neck out," so expressing one's opinion signals to social perceivers that the opinion is backed by at least moderate conviction.

Even a minority voice—such as an advertised atypically positive opinion—can greatly influence the beliefs or behavior of the majority if the minority's message is consistent and unwavering.⁵¹ Information shared from the majority often results in normative influence and public compliance, whereas information shared from a minority voice is more likely to achieve private acceptance through informational influence.⁵² Minority voices can introduce new and unexpected information and cause people to examine issues more carefully. Such careful examination appears to facilitate the view that the minority position has merit, leading people to adopt all or part of the minority's view.⁵³ The influence of a minority voice should be especially potent when there is little to no processing of an opposing or majority voice. An advertisement featuring a consumer's positive opinion about a product is one such context: only the advertised opinion is shown, while less favorable opinions regarding the product are omitted.

In summary, the FTC assumes, without explanation, that consumers are not unduly influenced by an advertised atypical opinion. However, there are many reasons to suspect that this assumption is incorrect. As a result, an advertised atypical opinion could bias consumers' judgments about the advertised product and their purchasing decisions. The next two sections of this article present the experiments we conducted to determine how consumers interpret advertised opinions.

49. John V. Petrocelli & Melanie B. Whitmire, *Emotion Decoding and Incidental Processing Fluency as Antecedents of Attitude Certainty*, 43 PERSONALITY & SOC. PSYCHOL. BULL. 924, 933 (2017); Derek D. Rucker, Zakary L. Tormala, Richard E. Petty & Pablo Briñol, *Consumer conviction and commitment: An appraisal-based framework for attitude certainty*, 24 J. CONSUMER PSYCHOL. 119, 119 (2014).

50. Cognitive dissonance is the psychological discomfort that people feel when two cognitions (beliefs, attitudes) conflict, or when they behave in ways that are inconsistent with their conception of themselves. When cognitive dissonance is present, people are motivated to reduce dissonance by achieving consonance. People also actively avoid situations and information that would likely increase cognitive dissonance. LEON FESTINGER, *A THEORY OF COGNITIVE DISSONANCE* 3 (1957).

51. Serge Moscovici, *Social influence and conformity*, in 2 HANDBOOK OF SOCIAL PSYCHOLOGY 347, 351 (Gardner Lindzey & Elliot Aronson eds., 3d ed. 1985); Serge Moscovici, *Three concepts: Minority, conflict, and behavioral style*, in MINORITY INFLUENCE 233, 233 (Serge Moscovici, Angela Mucchi-Faina & Anne Maass eds., 1994).

52. Barbara David & John C. C. Turner, *Majority and minority influence: A single process self-categorization analysis*, in GROUP CONSENSUS AND MINORITY INFLUENCE: IMPLICATIONS FOR INNOVATION 91, 103, 111, 116 (Carsten K. W. De Dreu & Nanne K. De Vries eds., 2001); John M. Levine, Richard L. Moreland & Hoon-Sook Choi, *Group Socialization and Newcomer Innovation*, in BLACKWELL HANDBOOK OF SOCIAL PSYCHOLOGY: GROUP PROCESSES 86, 87, 97–98 (Michael A. Hogg & R. Scott Tindale eds., 2001); Wendy M. Wood, Solvig Lundgren, Judith A. Ouellette, Shellyk Busceme & Tessa Blackstone, *Minority influence: A meta-analytic review of social influence processes*, 115 PSYCHOL. BULL. 323, 335–40 (1994).

53. Wendy Wood, Gregory J. Pool, Kira Leck, & Daniel Purvis, *Self-definition, defensive processing, and influence: The normative impact of majority and minority groups*, 71 J. PERSONALITY & SOC. PSYCHOL. 1181, 1191 (1996).

V. EXPERIMENT 1: FROZEN PIZZA

A. Overview

Experiment 1 was a randomized, controlled experiment testing whether consumers assume that an advertised opinion about a product is more typical than is necessarily warranted. It also tests whether disclosing the typical opinion regarding the advertised product would cause consumers to discount an advertised atypical opinion.

Participants read a version of an advertisement for a fictional brand of frozen pizza. Versions of the advertisement differed in whether they featured a testimonial from a consumer claiming that the pizza tastes as good as pizza from a restaurant (i.e., “restaurant pizza”) and in whether they disclosed the results of a consumer survey regarding whether most people who try the pizza believe it tastes at least as good as restaurant pizza. After reading the advertisement, participants were asked how likely they are to purchase the pizza, about their beliefs regarding the pizza’s taste, about how typical they consider the testimonial to be, and about what the advertisement conveyed regarding the pizza’s taste.

We hypothesized that people would be unduly influenced by an advertised consumer opinion, treating it as typical even if there is no reason to believe it is typical. Also, we hypothesized that disclosing that the opinion is atypical would reduce the effectiveness of the advertisement. Our experiment directly tested these hypotheses.

B. Method

1. Participants

A total of 658 adults in the United States participated in the experiment by completing an online questionnaire. 61% of the participants were female. Participants’ average age was 37.7 ($SD = 12.7$ years). An advertisement for a fictional brand of frozen pizza (Nino’s) was constructed to provide participants with a product type for which an advertisement would be familiar and relatively easy to process mentally. Indeed, participants appeared to be very familiar with the subject of the advertisement. In particular, 97.3% of participants reported having purchased frozen pizza before, and 85.0% reported having purchased frozen pizza in the past year. Also, 97.6% reported having eaten frozen pizza before, and 85.4% reported having eaten frozen pizza in the past year. In addition, 98.2% reported having eaten pizza served in restaurants before, and 92.9% reported having eaten restaurant pizza in the past year. Furthermore, participants reported purchasing frozen pizza an average of 15.5 times per year ($SD = 23.5$), eating frozen pizza an average of 15.3 times per year ($SD = 22.9$), and eating restaurant pizza an average of 13.5 times per year ($SD = 14.9$).

All participants completed the experiment on the same day. Before participating, they were informed that their participation was voluntary and that their individual responses would remain anonymous. Participants were recruited via Amazon’s Mechanical Turk and received fifty cents upon finishing the experiment. Studies using participants recruited from Mechanical Turk have been shown to have the same quality

responses as do studies conducted in behavioral labs.⁵⁴ In addition, the Mechanical Turk population is more diverse and older than traditional (college-aged), behavioral lab participants.⁵⁵ To test whether a participant was not paying attention—or was using a bot, script, or other automated method to complete the survey—an attention check question was included in the survey. In addition, all participants had a 95% or higher approval rate on the previous Mechanical Turk tasks they had completed.

2. Procedure

All participants were blinded to the purposes of the study⁵⁶ and given the same task: to read an advertisement for Nino's frozen pizza and answer questions about the pizza and the advertisement. Participants were not informed that Nino's frozen pizza is a fictional product. The experiment employed a 3 (Survey Disclosure: unfavorable vs. none vs. favorable) × 2 (Testimonial: none vs. yes) full factorial, between-participants design. Thus, participants were randomly assigned to view one of six versions of the advertisement.

In the *Testimonial* conditions, the advertisement presented a positive testimonial from a fictional consumer. In particular, the advertisement contained a photograph of a young man—identified as Michael Antonio from Chicago, Illinois—giving a “thumbs up” and next to his photo was an alleged testimonial from him: “I didn't think that any frozen pizza could taste as good as pizza from a restaurant, but Nino's really does!” In the *No Testimonial* conditions, the advertisement contained the same photograph, but it did not identify the man and, instead of quoting him, the text next to his photo stated that “Nino's Pizza is now available for purchase in the frozen foods section of your local grocery store!” Thus, the *No Testimonial* conditions lacked any testimonial regarding the pizza's taste.

In the *Favorable Survey Disclosure* conditions, the advertisement disclosed that the testimonial was the typical consumer reaction to the pizza. Specifically, the bottom of the advertisement stated that “A recent research survey found that most people who try Nino's Pizza believe that it tastes at least as good as pizza sold in restaurants.” In the *Unfavorable Survey Disclosure* conditions, the advertisement disclosed that the testimonial was an atypical consumer reaction to the pizza. Specifically, the bottom of the advertisement stated that “A recent research survey found that most people who try Nino's Pizza do not believe that it tastes at least as good as pizza sold in restaurants.” In the *No Survey Disclosure* conditions, the advertisement contained no disclosure regarding the typicality or atypicality of the testimonial. The advertisement in the *Testimonial with Favorable Survey Disclosure* experimental condition is displayed in Figure 1.⁵⁷

54. Michael Buhrmester, Tracy Kwang & Samuel D. Gosling, *Amazon's Mechanical Turk: A New Source of Inexpensive, Yet High-Quality, Data?*, 6 PERSP. PSYCHOL. SCI. 3, 5 (2011) (finding that data obtained from participants recruited from Mechanical Turk is at least as reliable as data obtained from participants recruited via traditional methods); Gabrielle Paolacci & Jesse Chandler, *Inside the Turk: Understanding Mechanical Turk as a Participant Pool*, 23 CURRENT DIRECTIONS PSYCHOL. SCI. 184, 186 (2014) (survey of existing research concludes that the data quality on Mechanical Turk is “good” and that “researchers can use [Mechanical Turk] for virtually any study that is feasible to conduct online.”).

55. Buhrmester et al., *supra* note 54, at 3, 4.

56. The recruiting material stated merely that “You are invited to participate in a research study. We are investigating the perceptions that people have about advertisements.”

57. The actual advertisement used in the experiment was in color.

In summary, the experiment was designed to test the effect on consumers of including a testimonial from a consumer who claims that the advertised frozen pizza tastes as good as restaurant pizza. It also tests the effect of disclosing that this advertised opinion is typical or atypical.

3. Dependent Variables

After reading a version of the advertisement, participants answered a series of questions. The first three questions asked about their purchase intention. First, they were asked a yes/no question: “Would you buy Nino’s Pizza?” (Purchase Decision). To measure the strength of the purchase intention, participants were then asked to indicate “how likely you are to buy Nino’s Pizza?” (Purchase Likelihood) using a response scale with endpoints labeled “Not at all Likely” (1.0) and “Extremely Likely” (7.0).⁵⁸ In addition, they were asked “How interested are you in buying Nino’s Pizza?” (Purchase Interest) using a response scale with endpoints labeled “Not at all Interested” (1.0) and “Extremely Interested” (7.0).

Because the testimonial stated that Nino’s Pizza tastes as good as restaurant pizza, participants were also asked about their beliefs regarding Nino’s Pizza’s taste. First, they were asked “How good or bad do you believe Nino’s Pizza tastes?” (Quality) using a response scale with endpoints labeled “Extremely Bad” (1.0) and “Extremely Good” (7.0). Also, they were asked “How do you believe that Nino’s Pizza tastes compared to pizza served in restaurants (i.e., restaurant pizza)?” (Quality Versus Restaurant Pizza) using a response scale with endpoints labeled “Nino’s Tastes Much Worse” (1.0) and “Nino’s Tastes Much Better” (7.0). To test how typical they believed the endorser’s opinion was, participants were asked to “Imagine that 100 typical consumers try Nino’s Pizza. In your opinion, how many of those people will believe that Nino’s Pizza tastes at least as good as restaurant pizza?” (Opinion Typicality). Participants responded to this item using a scale from zero to 100.⁵⁹

The FTC considers an advertised claim deceptive if the claim is material and “likely to mislead reasonable consumers under the circumstances.”⁶⁰ The FTC does not need to prove that any consumers actually were deceived by the claims.⁶¹ Advertisers are responsible for all express claims in an advertisement and all implied claims that are reasonably conveyed by the advertisement.⁶² Thus, in addition to asking participants about their own opinions about Nino’s Pizza, we also asked participants what they thought the advertisement was conveying. In particular, participants were asked “How good or bad did

58. All 1.0 – 7.0 scales used in the questionnaire were in increments of 0.1.

59. All 100-point scales used in the questionnaire were in increments of one.

60. FTC, Policy Statement on Deception (Oct. 14, 1983) (appended to *Cliffdale Assocs.*, 103 F.T.C. 110, 177 (1984)).

61. *F.T.C. v. LoanPoint, LLC*, 525 F. App’x 696, 701 (10th Cir. 2013) (Under § 5 of the FTC Act, “[t]he FTC does not need to prove actual deception, only the likelihood that a consumer . . . acting reasonably under the circumstances, would be deceived”); Su-Ping Lu, *Corporate Codes of Conduct and the FTC: Advancing Human Rights through Deceptive Advertising Law*, 38 COLUM. J. TRANSNAT’L L. 603, 621 (2000) (“[T]he lexicon of FTC jurisprudence has established that it is unnecessary to find that consumers were actually deceived”) (citations omitted).

62. Linda J. Demaine, *Seeing is Deceiving: The Tacit Deregulation of Deceptive Advertising*, 54 ARIZ. L. REV. 719, 744 (2012).

the advertisement suggest Nino's Pizza tastes?"⁶³ (Conveyed Quality) using a response scale with endpoints labeled "Extremely Bad" (1.0) and "Extremely Good" (7.0). Also, they were asked "What did the advertisement suggest regarding how Nino's Pizza tastes compared to restaurant pizza?" (Conveyed Quality Versus Restaurant Pizza) using a response scale with endpoints labeled "Nino's Tastes Much Worse" (1.0) and "Nino's Tastes Much Better" (7.0). Finally, participants were asked to "Imagine that 100 typical consumers try Nino's Pizza. How many of those people did the advertisement suggest would believe that it tastes at least as good as restaurant pizza?"⁶⁴ (Conveyed Typicality). Participants responded to this item using a scale from 0 to 100. After answering these questions, participants answered a number of demographic and manipulation-check questions.

C. Results

As noted above, after viewing a version of the advertisement, participants were asked three questions about their intention to purchase the advertised pizza: whether they would purchase the pizza (Purchase Decision), how likely they are to purchase the pizza (Purchase Likelihood), and how interested they are in buying the pizza (Purchase Interest). Participants' responses to these three questions were all positively correlated; for each pair of questions, $r(655) > .83, p < .001$. To simplify the data analyses, these three variables were standardized (i.e., converted to Z-scores) and then summed for each participant to construct a single index representing Purchase Intention.

We also asked participants three questions regarding their beliefs about how the advertised pizza tastes: how good or bad it tastes (Quality), how it tastes compared to restaurant pizza (Quality Versus Restaurant Pizza), and how typical is the opinion that it tastes at least as good as restaurant pizza (Opinion Typicality). Participants' responses to the three questions also were all positively correlated [each $r(656) > .65, p < .001$]. We standardized these three variables and then summed them for each participant to construct a single index representing Opinion of Quality.

In addition, we asked participants three questions about what they understood the advertisement to convey regarding the advertised pizza: how good or bad it tastes (Conveyed Quality), how it tastes compared to restaurant pizza (Conveyed Quality Versus Restaurant Pizza), and how typical is the opinion that it tastes at least as good as restaurant pizza (Conveyed Typicality). Their responses to these three questions also were all positively correlated [each $r(530) > .55, p < .001$]. We standardized these three variables and then summed them for each participant to construct a single index (Interpretation of Advertisement) representing participants' interpretations of what the advertisement was conveying.

The means and standard deviations of these Purchase Intention, Opinion of Quality, and Interpretation of Advertisement variables and of each of their components are presented in Table 1, broken down by experimental condition. To examine how the values

63. This question was asked only of the 580 (88.1%) participants who had said previously that the advertisement suggested something about the taste of Nino's Pizza.

64. These last two questions were asked only of the 532 (80.9%) participants who had also said previously that the advertisement suggested how Nina's Pizza tastes compared to restaurant pizza.

of the three variables differed across the six experimental conditions, we subjected each of the variables to a 3 (Survey Disclosure: unfavorable vs. none vs. favorable) \times 2 (Testimonial: none vs. yes) analysis of variance (ANOVA) test. The results were very similar for the three ANOVAs.

First, the tests showed that including the testimonial in the advertisement increased participants' intentions to purchase the pizza, participants' opinions of the pizza's quality, and participants' perceptions of how positively the pizza is portrayed in the advertisement. For all three ANOVAs, a statistically significant main effect of Testimonial emerged. In particular, the Purchase Intention variable was larger when the advertisement included the testimonial ($M = .76$, $SD = 2.71$) than when it did not include the testimonial ($M = -0.04$, $SD = 2.81$), $F(1, 651) = 15.87$, $p < .001$, $\eta^2 = .02$. Also, the Opinion of Quality variable was larger when the advertisement included the testimonial ($M = .25$, $SD = 2.61$) than when it did not include the testimonial ($M = -.33$, $SD = 2.75$), $F(1, 652) = 9.14$, $p = .003$, $\eta^2 = .01$. Likewise, the Interpretation of Advertisement variable was higher when the advertisement included the testimonial ($M = .57$, $SD = 1.96$) than when it did not do so ($M = -1.09$, $SD = 3.08$), $F(1, 526) = 42.32$, $p < .001$, $\eta^2 = .07$.

The magnitude of the testimonial's effect was large. For example, as displayed in Table 1, when the advertisement did not disclose any consumer survey results, adding the testimonial increased the percentage of participants who said they would buy the advertised pizza to 81% from 62%.

In all three ANOVAs, a significant main effect of Survey Disclosure also emerged. In particular, for Purchase Intention, $F(2, 651) = 49.19$, $p < .001$, $\eta^2 = .13$; for Opinion of Quality, $F(2, 652) = 58.35$, $p < .001$, $\eta^2 = .15$; and for Interpretation of Advertisement, $F(2, 526) = 71.05$, $p < .001$, $\eta^2 = .21$. However, pairwise contrasts reveal that disclosing favorable survey results (i.e., that most consumers believe that the advertised pizza tastes at least as good as restaurant pizza) did not have a significant effect, relative to not disclosing any survey results. In particular, Purchase Intention did not differ significantly when the advertisement disclosed favorable survey results ($M = 1.12$, $SD = 2.55$) versus when it did not disclose any survey results, ($M = 1.02$, $SD = 2.56$), $t(651) = .42$, $p = .67$. Nor did Opinion of Quality differ significantly when the advertisement disclosed favorable survey results ($M = .87$, $SD = 2.28$) versus when it did not disclose any survey results ($M = .53$, $SD = 2.40$), $t(652) = 1.43$, $p = .15$. Likewise, Interpretation of Advertisement did not differ significantly when the advertisement disclosed favorable survey results ($M = .63$, $SD = 1.31$) versus when it did not disclose any survey results, ($M = .93$, $SD = 1.36$), $t(526) = 1.24$, $p = .21$.

In contrast, pairwise contrasts showed that disclosing unfavorable survey results (i.e., that most consumers do not believe that the advertised pizza tastes at least as good as restaurant pizza) significantly reduced all three variables. In particular, Purchase Intention was less when the advertisement disclosed unfavorable survey results ($M = -1.03$, $SD = 2.71$) than when it did not disclose any survey results ($M = 1.02$, $SD = 2.56$), $t(651) = 8.34$, $p < .001$. Also, Opinion of Quality was less when the advertisement disclosed unfavorable survey results ($M = -1.47$, $SD = 2.76$) than when it did not disclose any survey results ($M = .53$, $SD = 2.40$), $t(652) = 8.58$, $p < .001$. Likewise, Interpretation of Advertisement was less when the advertisement disclosed unfavorable survey results ($M = -1.71$, $SD = 3.47$)

than when it did not disclose any survey results ($M = .93$, $SD = 1.36$), $t(526) = 10.92$, $p < .001$.

In fact, disclosing the unfavorable survey results had such a strong negative effect that a lower percentage of participants in the *Testimonial with Unfavorable Survey Disclosure* experimental condition reported they would purchase the pizza (42%) than did participants in the *No Testimonial with No Survey Disclosure* condition (62%), $t(651) = -3.27$, $p = .001$. In other words, the negative effect of disclosing the unfavorable survey results more than offset the positive effect of the testimonial.

Finally, there was no significant Testimonial \times Survey Disclosure interaction in the Purchase Intention results [$F(2, 651) = 1.40$, $p = .25$] nor the Opinion of Quality results [$F(2, 652) = 1.73$, $p = .18$]. In other words, the effect of the survey disclosures did not depend on whether the advertisement contained a testimonial. In contrast, however, the Interpretation of Advertisement results were qualified by a Testimonial \times Survey Disclosure interaction, $F(2, 526) = 22.66$, $p < .001$, $\eta^2 = .08$. The interaction appears to have been driven primarily by the Interpretation of Advertisement variable being larger in the *Unfavorable Survey Disclosure* condition when the advertisement contained a testimonial than when it did not contain a testimonial, $t(526) = 9.82$, $p < .001$. In contrast, the existence of the testimonial did not significantly affect the Interpretation of Advertisement variable in the *Favorable Survey Disclosure* conditions, $t(526) = .72$, $p = .47$, and it had only a marginally significant effect in the *No Survey Disclosure* conditions, $t(526) = 1.71$, $p = .08$.

In summary, by all measures, the testimonial increased the advertisement's effectiveness. The testimonial increased participants' purchase intentions, increased participants' perceptions of the pizza's quality, and caused them to believe the advertisement was conveying a more positive view of the pizza. Also, by the same measures, disclosing that the testimonial was an atypical consumer opinion (i.e., the unfavorable survey results) eliminated the testimonial's effectiveness. In contrast, however, disclosing that the testimonial was the typical consumer opinion (i.e., the favorable survey results) did not significantly affect the testimonial's effectiveness.

The effects of disclosing the survey results indicate that participants assumed that the testimonial was the typical consumer opinion unless they were told otherwise. Disclosing that the advertised opinion was typical did not significantly affect their reaction to the advertisement, which suggests that this disclosure did not alter participants' assumptions about the typicality of the testimonial. In contrast, participants reacted negatively to the disclosure that the testimonial was atypical, which suggests that this atypicality information challenged their assumption that the testimonial was typical.

The purchase scenario presented in this experiment, however, might not be representative of many purchase decisions facing consumers. In particular, the decision of whether to purchase a particular frozen pizza has fairly low stakes. A consumer who buys a bad frozen pizza has wasted only a fairly small amount of money. Thus consumers might give less careful thought to deciding which pizza to buy than to the purchase of a more expensive product.⁶⁵ As a result, they might give more weight to a single opinion in a

65. Thomas R. Lee, Glenn L. Christensen & Eric D. DeRosia, *Trademarks, Consumer Psychology, and the*

pizza advertisement than in an advertisement for a more costly product. Thus we conducted a second experiment in which participants were placed in a scenario in which the stakes were much higher: they had to choose whether to purchase a trip on a particular cruise line.

VI. EXPERIMENT 2: CRUISE

A. Overview

Like the first experiment, Experiment 2 was a randomized, controlled experiment testing whether consumers assume that an advertised opinion about a product is more typical than is necessarily warranted. It also again tested whether disclosing the typical opinion regarding the advertised product would cause consumers to discount an advertised atypical opinion. In this experiment, participants read a version of an advertisement for a cruise line. Versions of the advertisement differed in whether they contained a testimonial from a couple claiming the cruise line is the best of the many cruise lines on which they have taken cruises. The versions also differed in whether the advertisement disclosed the results of a consumer survey regarding whether most people who had taken a cruise on the advertised cruise line believed it was the best. After reading the advertisement, participants were asked how likely they are to take a cruise on the advertised cruise line, about their beliefs regarding the quality of the cruise line, about how typical they consider the testimonial to be, and about their own beliefs regarding what the advertisement conveyed regarding the quality of the advertised cruise line.

Like in Experiment 1, we hypothesized that people would be unduly influenced by an advertised consumer opinion, treating it as typical even if there is no reason to believe it is typical. Also, we hypothesized that disclosing that the opinion is atypical would reduce the effectiveness of the advertisement. In summary, we hypothesized that consumers' reactions to an advertised testimonial and disclosures regarding it would not be affected by the price of advertised product.

B. Method

1. Participants

A total of 619 adults in the United States participated in the experiment by completing an online questionnaire. 55% of the participants were male. Participants' average age was 37.0 ($SD = 12.8$ years). We constructed an advertisement for Crystal Cruises cruise line, which was the top-rated "luxury" cruise line in U.S. News and World Report's 2018 rankings of cruise lines.⁶⁶ Participants appeared to be only mildly familiar with the subject of the advertisement. In particular, 33.4% of participants reported ever having taken a cruise, and 20.1% reported having taken a cruise in the past year.

Sophisticated Consumer, 57 EMORY L.J. 575, 604 (2008) ("The basic relationship between price and consumer care finds theoretical support in the motivation element of the consumer behavior model. According to this model, price is correlated positively with perceived financial risk.").

66. *U.S. News Releases the 2018 Best Cruise Lines*, U.S. NEWS & WORLD REP. (Nov. 14, 2017, 12:01 AM), <https://www.usnews.com/info/blogs/press-room/articles/2017-11-14/us-news-releases-the-2018-best-cruise-lines>.

Participants who reported ever taking a cruise reported that they averaged taking 4.13 cruises over the last five years ($SD = 7.36$). Also, only 9.3% of participants reported having heard of Crystal Cruises before.

As in the first experiment, participants were recruited via Amazon's Mechanical Turk and received fifty cents upon finishing the experiment. All participants completed the experiment online and on the same day. Before participating, they were informed that their participation was voluntary and that their individual responses would remain anonymous. To test whether a participant was not paying attention—or was using a bot, script, or other automated method to complete the survey—an attention check question was included in the survey. In addition, all participants had a 95% or higher approval rate on the previous Mechanical Turk tasks they completed.

2. Procedure

All participants were blinded to the purposes of the study and given the same task: to read an advertisement for Crystal Cruises and answer questions about the cruise line and the advertisement. Like Experiment 1, the experiment employed a 3 (Survey Disclosure: unfavorable vs. none vs. favorable) \times 2 (Testimonial: none vs. yes) full factorial, between-participants design. Thus, participants were randomly assigned to read one of six versions of the advertisement.

In the *Testimonial* conditions, the advertisement presented a positive testimonial from two consumers. In particular, the advertisement contained a photograph of a middle-age couple—identified as John and Karen Reynolds from San Diego, California—holding glasses of champagne while standing in front of a cruise ship. On this photo was an alleged testimonial from the couple: “We’ve taken cruises on many cruise lines, and Crystal Cruises is the best!” In the *No Testimonial* conditions, the advertisement contained the same photograph, but it did not identify the couple and, instead of quoting them, the text in the photo stated “Contact Crystal Cruises or your travel agent today to book a cruise!” Thus, the *No Testimonial* conditions lacked any testimonial regarding Crystal Cruise’s quality.

In the *Favorable Survey Disclosure* conditions, the advertisement disclosed that the testimonial was the typical consumer opinion regarding Crystal Cruises. Specifically, the bottom of the advertisement stated that “A recent research survey found that most people who have taken cruises on both Crystal Cruises and on other cruise lines rated Crystal Cruises as the best.” In the *Unfavorable Survey Disclosure* conditions, the advertisement disclosed that the testimonial was an atypical consumer opinion regarding Crystal Cruises. Specifically, the bottom of the advertisement stated that “A recent research survey found that most people who have taken cruises on both Crystal Cruises and on other cruise lines did not rate Crystal Cruises as the best.” In the *No Survey Disclosure* conditions, the advertisement contained no disclosure regarding the typicality or atypicality of the testimonial. The advertisement in the *Testimonial with Favorable Survey Disclosure* experimental condition is displayed in Figure 2.⁶⁷

In summary, the experiment was designed to test the effect on consumers of

67. The actual advertisement used in the experiment was in color.

including a testimonial from a couple who claims that the advertised cruise line is the best cruise line on which they have vacationed. It also tests the effect of disclosing that this advertised opinion is typical or atypical.

3. Dependent Variables

After reading a version of the advertisement, participants answered a series of questions very similar to those in Experiment 1. The first three questions asked about their purchase intention. First, they were asked a yes/no question: "Imagine that you have decided to take a cruise. Would you book a cruise on Crystal Cruises?" (Purchase Decision). To measure the strength of the purchase intention, participants were then asked to indicate "how likely you would be to book a cruise on Crystal Cruises?" (Purchase Likelihood) using a response scale with endpoints labeled "Not at all Likely" (1.0) and "Extremely Likely" (7.0).⁶⁸ In addition, they were asked "How interested would you be in booking a cruise on Crystal Cruises?" (Purchase Interest) using a response scale with endpoints labeled "Not at all Interested" (1.0) and "Extremely Interested" (7.0).

Because the testimonial stated that Crystal Cruises is the best cruise line, participants were also asked about their beliefs regarding the quality of Crystal Cruises. First, they were asked "How good or bad do you believe Crystal Cruises is?" (Quality) using a response scale with endpoints labeled "Very Bad" (1.0) and "Very Good" (7.0). Also, they were asked "How do you believe that Crystal Cruises is compared to other cruise lines?" (Quality Versus Other) using a response scale with endpoints labeled "Crystal Cruises is Much Worse" (1.0) and "Crystal Cruises is Much Better" (7.0). To test how typical they believed the endorsers' opinion is, participants were asked to "Imagine that 100 typical consumers take cruises both on Crystal Cruises and on other cruise lines. In your opinion, how many of those consumers will rate Crystal Cruises as the best?" (Opinion Typicality). Participants responded to this item using a scale from zero to 100.⁶⁹

In addition to asking participants about their own opinions about Crystal Cruises, we also asked participants what they thought the advertisement was conveying. In particular, participants were asked "How good or bad did the advertisement suggest Crystal Cruises is?"⁷⁰ (Conveyed Quality) using a response scale with endpoints labeled "Very Bad" (1.0) and "Very Good" (7.0). Also, they were asked "What did the advertisement suggest regarding how Crystal Cruises compares to other cruise lines?" (Conveyed Quality Versus Other) using a response scale with endpoints labeled "Crystal Cruises is Much Worse" (1.0) and "Crystal Cruises is Much Better" (7.0). Finally, participants were asked to "Imagine that 100 typical consumers take cruises both on Crystal Cruises and on other cruise lines. How many of those consumers did the advertisement suggest will rate Crystal Cruises as the best?" (Conveyed Typicality).⁷¹ Participants responded to this item using a scale from zero to 100. After answering these

68. All 1.0–7.0 scales used in the questionnaire were in increments of 0.1.

69. All 100-point scales used in the questionnaire were in increments of one.

70. This question was asked only of the 485 (78.4%) participants who had said previously that the advertisement suggested something about the quality of Crystal Cruises.

71. These last two questions were asked only of the 464 (75.0%) participants who had said previously that the advertisement suggested how Crystal Cruises compares to other cruise lines.

questions, participants answered a number of demographic and manipulation-check questions.

C. Results

As in the first experiment, participants' responses to the three purchase intention questions (Purchase Decision, Purchase Likelihood, and Purchase Interest) were all positively correlated; for each pair of questions, $r(610) > .83$, $p < .001$. To simplify the data analyses, these three variables were standardized (i.e., converted to Z-scores) and then summed for each participant to construct a single index representing Purchase Intention.

Also, participants' responses to the three questions regarding their beliefs about the quality of Crystal Cruises (Quality, Quality Versus Other, and Opinion Typicality) were all positively correlated [each $r(609) > .76$, $p < .001$]. We standardized these three variables and then summed them to construct a single index representing Opinion of Quality.

In addition, participants' responses to the three questions about what they understood the advertisement to convey regarding Crystal Cruises (Conveyed Quality, Conveyed Quality Versus Other, and Conveyed Typicality) were all positively correlated [each $r(462) > .68$, $p < .001$]. We standardized those three variables as well and then summed them to construct a single index (Interpretation of Advertisement) representing participants' interpretation of what the advertisement was conveying. The means and standard deviations of these Purchase Intention, Opinion of Quality, and Interpretation of Advertisement variables and of each of their components are presented in Table 2, broken down by experimental condition.

The Purchase Intention, Opinion of Quality, and Interpretation of Advertisement variables were then each subjected to a 3 (Survey Disclosure: unfavorable vs. none vs. favorable) \times 2 (Testimonial: none vs. yes) analysis of variance (ANOVA) test. The results substantially differed from those of Experiment 1.

First, the tests showed that including the testimonial in the advertisement significantly affected neither the participants' intention to book a cruise on Crystal Cruises nor the participants' opinion of Crystal Cruise's quality. No significant main effect emerged for Testimonial in the Purchase Intention results [$F(1, 606) = .92$, $p = .34$] nor in the Opinion of Quality results [$F(1, 605) = .48$, $p = .49$]. In contrast, the testimonial increased participants' perception of how positively the cruise line is portrayed in the advertisement. The Interpretation of Advertisement variable was higher when the advertisement included the testimonial ($M = .37$, $SD = 2.24$) than when it did not do so ($M = -.44$, $SD = 2.78$), $F(1, 525) = 14.58$, $p < .001$, $\eta^2 = .03$.

In addition, a significant main effect of Survey Disclosure emerged for each of the three dependent variables: Purchase Intention, $F(2, 606) = 95.58$, $p < .001$, $\eta^2 = .24$; Opinion of Quality, $F(2, 605) = 117.15$, $p < .001$, $\eta^2 = .28$; and Interpretation of Advertisement, $F(2, 525) = 191.20$, $p < .001$, $\eta^2 = .42$. Pairwise contrasts revealed that disclosing favorable survey results (i.e., that most consumers who had taken cruises on both Crystal Cruises and on other cruise lines believed that Crystal Cruises was best) increased Purchase Intention, Opinion of Quality, and Interpretation of Advertisement, relative to not disclosing any survey results. The Purchase Intention variable was

marginally significantly larger when the advertisement included the favorable survey results ($M = 1.20$, $SD = 2.12$) than when it did not include any survey results ($M = .71$, $SD = 2.44$), $t(606) = 1.95$, $p = .051$. The Opinion of Quality variable also was larger when the advertisement included the favorable survey results ($M = 1.33$, $SD = 1.99$) than when it did not include survey results ($M = .67$, $SD = 2.08$), $t(605) = 2.87$, $p = .004$. Likewise, the Interpretation of Advertisement variable was larger when the advertisement included the favorable survey results ($M = 1.43$, $SD = 1.31$) than when it did not include survey results ($M = .90$, $SD = 1.23$), $t(525) = 2.53$, $p = .011$. Although at least marginally statistically significant, the magnitude of the effect of disclosing the positive survey results was not the most profound. For example, when the advertisement included the testimonial, also including the positive survey results increased the percentage of participants who said they would book a cruise on Crystal Cruises to 87% from 79%.

Pairwise contrasts also revealed that disclosing the unfavorable survey results had a negative effect on participants. The Purchase Intention variable was smaller when the advertisement included the unfavorable survey results ($M = -1.98$, $SD = 2.90$) than when it did not include any survey results ($M = .71$, $SD = 2.44$), $t(606) = -10.82$, $p < .001$. The Opinion of Quality variable also was smaller when the advertisement included the unfavorable survey results ($M = -2.06$, $SD = 2.93$) than when it did not include survey results ($M = .67$, $SD = 2.08$), $t(605) = -11.67$, $p < .001$. Likewise, the Interpretation of Advertisement variable was smaller when the advertisement included the unfavorable survey results ($M = -2.13$, $SD = 2.74$) than when it did not include survey results ($M = .90$, $SD = 1.23$), $t(525) = -14.31$, $p < .001$. Unlike the effect of the favorable survey results, the magnitude of the effect of disclosing the unfavorable survey results was very large. For example, when the advertisement contained both the testimonial and the unfavorable survey disclosure, only 37% of participants said they would book a cruise on Crystal Cruises, much less than the 79% who said they would do so when the advertisement only had the testimonial.

Finally, there was no significant Testimonial \times Survey Disclosure interaction in either the Purchase Intention results [$F(2, 606) = .59$, $p = .55$] or Opinion of Quality results [$F(2, 605) = .02$, $p = .98$]. In other words, the survey disclosures' effects did not depend on whether the advertisement contained a testimonial. In contrast, however, the Interpretation of Advertisement results were qualified by a Testimonial \times Survey Disclosure interaction, $F(2, 525) = 7.94$, $p < .001$, $\eta^2 = .03$. The interaction appears to be driven primarily by the Interpretation of Advertisement variable being relatively larger in the *Unfavorable Survey Disclosure* conditions when the advertisement contained a testimonial than when it didn't contain a testimonial, $t(525) = 5.37$, $p < .001$. In contrast, the existence of the testimonial did not significantly affect the Interpretation of Advertisement variable in the *Favorable Survey Disclosure* conditions, $t(525) = .17$, $p = .863$, nor in the *No Survey Disclosure* conditions, $t(525) = 1.58$, $p = .11$.

As noted above, only 33.4% of participants in the study reported having taken a cruise before. Thus, we also checked whether those participants' responses differed from those of participants who had not taken a cruise.

Unsurprisingly, participants who had taken a cruise before were more likely to state that they would also take a cruise on Crystal Cruises. In particular, having ever taken a

cruise had a significant main effect on Purchase Intention, $F(1, 597) = 9.34, p < .001$, such that those who had ever taken a cruise ($n = 208$) reported being more likely to purchase the cruise ($M = .46, SD = 2.65$) than those who had never taken a cruise ($n = 401, M = -.22, SD = 2.94$).

In addition, having ever taken a cruise had a significant main effect on Opinion of Quality, $F(1, 597) = 8.31, p = .004$, such that those who had ever taken a cruise reported a better opinion of Crystal Cruises ($M = .41, SD = 2.62$) than did those who had never taken a cruise ($M = -.20, SD = 2.84$).

However, having ever taken a cruise did not affect the Interpretation of Advertisement variable, $F(1, 597) = .75, p = .386$. Those who had taken a cruise did not interpret the advertisements ($M = .14, SD = 2.28$) significantly differently from their counterparts who never had taken a cruise ($M = -.08, SD = 2.66$).

More importantly, having taken a cruise did not further moderate the effects of Survey Disclosure or Testimonial, nor any interactions between these variables, on any of the dependent variables. In other words, having taken a cruise did not significantly affect how participants responded to the testimonial and the disclosures. Thus, having ever taken a cruise was not included in the subsequent analyses.

In summary, unlike in the pizza advertisement, there is little evidence that the testimonial was effective in the cruise advertisement. Also, in contrast to the pizza advertisement, supplementing the testimonial with the favorable survey disclosure increased the cruise advertisement's effectiveness. However, similar to the pizza advertisement, the unfavorable survey disclosure greatly decreased the advertisement's effectiveness. Thus, the effect of the testimonial and favorable survey disclosure greatly depended upon the type of product that was advertised.

VII. DISCUSSION AND POLICY IMPLICATIONS

Advertisements often present the positive opinion of a person who used the product. The FTC does not require such advertisements to indicate whether the advertised opinion is the typical consumer opinion regarding the product. This policy is based on the FTC's assumption that consumers understand that the advertised opinion is only necessarily the endorser's opinion, not the typical consumer opinion.⁷² The current article provides substantial evidence that the FTC's assumption often is incorrect.

Before discussing these findings and their public policy implications, some of the experiments' limitations should be noted. Ecological validity issues exist in any controlled experiment. Here, participants answered questions about their beliefs regarding the advertised products after only seeing the advertisements. They did not have access to any additional information, such as consumer or expert reviews of the products. Thus, participants might have given more weight in the experiments to the testimonials and/or survey disclosures than they would have if they had been making real purchase decisions. Consumers especially might be likely to seek additional information before booking a cruise because of the high financial consequences of the decision.

In addition, participants in our experiment were asked to read the advertisement and

72. 16 C.F.R. § 255.2(c) (2011).

answer questions related to it and were compensated for doing so. Thus they likely focused more on the advertisement than do people in the real world who, for example, come across an advertisement in a magazine and thus might just skim it and especially not read carefully a disclosure in it.⁷³ Therefore, the testimonials and disclosures might have less effect in the real world than in these experiments.

Despite these limitations, the experiments had important findings. First, including a testimonial presenting the opinion of a single, unknown person substantially increased the pizza advertisement's effectiveness by all measures. For example, as noted above, when the advertisement did not include survey results, adding the testimonial increased to 81% from 62% the percentage of participants who said they would purchase the pizza.

The effectiveness of the testimonial appears to have been due, at least in part, to people assuming that the advertised opinion is the typical consumer opinion. Evidence of their belief in the testimonial's typicality is that adding the favorable survey disclosure—which essentially informed participants that the testimonial was typical—did not make the pizza advertisement more effective. Because participants already assumed the testimonial was typical, this disclosure did not provide them with additional information. In contrast, the unfavorable survey disclosure—which essentially stated that the testimonial was atypical—provided information that contradicted their assumptions. As a result, that unfavorable disclosure made the testimonial ineffective. In fact, participants who saw the advertisement with the testimonial and the unfavorable disclosure reported they were less likely to buy the advertised pizza and had a lower opinion of the pizza's quality than did participants who saw the advertisement with no testimonial and no disclosure. In other words, disclosing the testimonial's atypicality more than completely neutralized the testimonial.

The effectiveness of the unfavorable survey disclosure is also strong evidence that the favorable survey disclosure was ineffective because participants assumed the testimonial was typical. If participants just were not reading the survey disclosures or not taking them seriously then the unfavorable survey disclosure would have been ineffective as well.

In contrast to its effect in the pizza advertisement, a testimonial did not increase the effectiveness of the cruise advertisement. However, disclosing that the testimonial was the typical consumer opinion did increase the cruise advertisement's effectiveness. Thus, participants responded in a much more rational way to the cruise testimonial than the pizza testimonial. In particular, they appear to have disregarded a single advertised opinion absent evidence of its typicality.

The difference in the reactions to the pizza testimonial and cruise testimonial might be due to the higher stakes involved in choosing a cruise line than in choosing a frozen pizza. In contrast to buying a frozen pizza, taking a cruise requires a significant financial commitment as well as possibly the use of one's limited vacation time. Thus consumers

73. See Sabeeh A. Baig et al., "*Organic, "Natural," and "Additive-Free" Cigarettes: Comparing the Effects of Advertising Claims and Disclaimers on Perceptions of Harm*," 21 NICOTINE & TOBACCO RES. 933, 938 (2019) ("We suspect that [compared to the impact of advertising disclaimers in an experimental settings] the relative impact of disclaimers is even weaker in a real-world setting in which people would get the gist of the ad from headlines and through repeated disclosures.").

are likely to more carefully consider which cruise to take than which frozen pizza to buy.

As discussed above, the established literature documenting the reliance on heuristics suggests that people's judgments can be influenced by a single, expressed opinion.⁷⁴ Such influence is especially likely when people operate under a relatively automatic processing system in which they do not engage in deep deliberations or consciously attend to critical information.⁷⁵ Thus, because consumers are more likely to engage in careful consideration of a purchase decision regarding cruises than regarding frozen pizza, it perhaps should not be surprising that the testimonial had a significant effect only in the pizza advertisement.

The fact that people were affected by the pizza testimonial but not the cruise testimonial might cause one to question the magnitude of consumer harm caused by advertisements of atypical opinions. Consumers misled about a frozen pizza's quality might only have wasted several dollars and have suffered some disappointment when they discovered the pizza was not as good as the advertisement had suggested. However, even small purchases can have large welfare consequences when aggregated across consumers. For example, it has been estimated that \$5.2 billion of frozen pizza is sold annually in the United States.⁷⁶ Also, misleading advertisements can cause other harm as well. If advertising of atypical opinions misleads consumers to believe that the advertised product is better than it actually is, then producers of truly better products can have more difficulty distinguishing their products in consumers' minds. Therefore, producers of superior products might feel compelled to devote more advertising resources to convincing consumers that their products are better than the misleadingly advertised products. In addition, consumers who feel they were misled by an advertisement might become less trusting of advertising overall.

In summary, the experiments' findings have important public policy ramifications. At least for certain product types, consumers appear to treat a single advertised opinion as the typical opinion regarding the product. Thus, consumers are being misled if the advertised opinion is not truly typical. Such findings suggest that additional regulation might be necessary to protect consumers.

One possible solution is for the FTC to extend its rules regarding advertising of testimonials of objective results to advertising of testimonials of opinions as well. In particular, the FTC could add to its Guides Concerning the Use of Endorsements and Testimonials in Advertising that the FTC

will likely interpret an advertisement of an endorser's *opinion* as representing that the opinion is representative of the opinions that consumers in general will have regarding the advertised product. Thus, advertisers should have adequate substantiation for this representation, such as by a consumer survey showing that the advertised opinion is typical. If the advertiser doesn't have such substantiation (i.e., because the advertised opinion is atypical), then the advertisement should also disclose the typical consumer opinion and the

74. See *supra* Section IV.

75. DANIEL KAHNEMAN, THINKING, FAST AND SLOW 98 (2011).

76. MINTEL REPORTS, PIZZA – U.S. – OCTOBER 2018 fig.9 (2018), <http://academic.mintel.com/> (in “search” box, search for “pizza” in “News and Other Databases”; then follow “Pizza: U.S. – October 2018 Report” hyperlink, then follow “Market” hyperlink, then follow “Market Breakdown” hyperlink).

advertiser should have substantiation for that disclosure.

Such a policy might help prevent consumers from being misled by advertisements of atypical consumer opinions, because such advertisements would also have to disclose the typical opinions as well. Indeed, in the pizza experiment, disclosing the testimonial's atypicality rendered the testimonial completely ineffective. However, such a disclosure might be less effective in real-life situations because consumers might not read disclosures at the bottom of an advertisement as closely as participants in the experiments did.⁷⁷

Thus, a stronger regulatory approach could be needed. In particular a prohibition on the advertisement of atypical opinions should be considered. Prominent legal scholars have argued that prohibiting certain advertising claims that provide little, if any, value to consumers can be justified.⁷⁸ Advertisements of atypical opinions provide almost no useful information to consumers. For example, consider the testimonial in the pizza advertisement used in our first experiment. The only information the testimonial truly provides is that there exists at least one person who thinks that the advertised pizza tastes as good as restaurant pizza. To reasonable consumers, this fact should be essentially meaningless. The opinion of a single person—selected by the advertiser—provides virtually no information regarding the likelihood that other consumers will agree with that opinion.

Of course, the purpose of such an advertisement is not to convey that *someone* believes the advertised pizza tastes as good as restaurant pizza. Instead, the advertisement's purpose is to convince consumers that they too will feel that way. Indeed, the results of the pizza experiment demonstrated that the testimonial was effective in increasing participants' own perceptions of the pizza's quality.⁷⁹ Consumers are deceived by the advertised opinion if most people do not share it.

In summary, advertisements of atypical opinions provide virtually no useful information, yet can deceive consumers. Thus a strong argument exists for prohibiting them. However, a prohibition would raise First Amendment issues. As long as advertised testimonials reflect the endorsers' sincere beliefs, a court might deem the advertisements merely potentially misleading, rather than inherently misleading. Thus, a court might only permit a regulatory agency to mandate that these advertisements contain additional disclosures, such as those tested in this article, rather than prohibit the advertisements.⁸⁰

In addition, an alternative regulatory approach might make at least some

77. See Baig et al., *supra* note 73, at 938 (doubting the effectiveness of disclaimers in advertisements in real-world settings in which people “get the gist of the ads from headlines and through repeated disclosures.”). See also Ben-Shahar & Schneider, *supra* note 48, at 711 (discussing difficulties people have in trying to understand disclosures).

78. See, e.g., Howard Beales et al., *The Efficient Regulation of Consumer Information*, 24 J.L. & ECON. 491, 496 (“[E]nforcement costs aside—there is no reason not to forbid” claims that “contribute nothing to consumer welfare In some instances the truthful information conveyed by a claim . . . may be of so little value that there is no reason to preserve it by permitting the claim.”). See also Richard Craswell, *Regulating Deceptive Advertising: The Role of Cost-Benefit Analysis*, 64 S. CAL. L. REV. 549, 584 (1991) (noting, regarding another type of claim, that “if nothing would be lost by prohibiting such a claim, the cost-benefit analysis would almost surely argue in favor of prohibition”).

79. See *supra* p. 94.

80. See *Int'l Dairy Foods Ass'n v. Boggs*, 622 F.3d 628, 639–40 (6th Cir. 2010) (striking down prohibition of a potentially misleading claim on milk labels because requiring the labels to contain a disclaimer would be sufficient).

advertisements of atypical opinions actually useful to consumers. Specifically, advertisements of atypical opinions could be required to disclose how atypical the opinions are. The fact that a testimonial is atypical does not necessarily mean it should be irrelevant to consumers. For example, imagine that 28% of people who try Nino's frozen pizza believe that it tastes at least as good as restaurant pizza. From this fact that a substantial minority of people believe that Nino's tastes at least as good as restaurant pizza, consumers might correctly infer that Nino's is better than most frozen pizzas. This information might be relevant to reasonable consumers deciding which frozen pizza to buy. Requiring advertisements of atypical opinions to disclose the degree of the opinion's atypicality could provide this information to consumers. For example, the pizza advertisement containing the testimonial could be required to disclose that "28% of [or 28 in 100] people who try Nino's Pizza believe that it tastes at least as good as restaurant pizza."

Unfortunately, however, providing information about the degree of an advertised opinion's atypicality might confuse rather than inform many consumers. Explaining the degree of an opinion's atypicality requires the use of percentages and/or proportions. But the general population suffers from widespread innumeracy.⁸¹ For example, in one study, three highly-educated groups of adults⁸² were each asked three questions: (1) how many times would a fair, six-sided die come up even (i.e., 2, 4, or 6) if rolled 1000 times; (2) if 1000 people buy a lottery ticket and the chance of winning a prize is 1%, what number of people would win a prize; and (3) if the chance of winning a prize in a sweepstakes is 1 in 1000, what percentage of sweepstakes tickets will win the prize.⁸³ In all three groups, only between 15% and 21% of participants answered all three questions correctly, and only another 16% to 28% had two correct answers.⁸⁴ Thus, even assuming that consumers would see and read the disclosure of the degree of an advertised opinion's typicality, many of them would likely not understand it. If an effective disclosure cannot be created, then a prohibition of advertising atypical opinions might be preferable.

In summary, this article's results highlight the importance of empirical study before the implementation of any advertising regulation. Earlier studies found that consumers are misled by the advertising of atypical product results. At least partly based on those studies, the FTC requires those advertisements to also disclose the typical results. In contrast, the FTC appears merely to have assumed that consumers are not misled by the advertising of atypical consumer opinions about a product. Thus, it exempted such advertisements from the disclosure requirement.

However, this article finds evidence that, at least for certain types of products, the FTC's assumption is incorrect. Consumers can be misled by the advertisement of atypical opinions as well. Further empirical research is needed to determine exactly for which types of products these advertisements are likely to mislead consumers and the best regulatory approach to addressing these advertisements. Nevertheless, the need for empirically

81. Ben-Shahar & Schneider, *supra* note 48, at 712.

82. Only between 6% and 16% of the people in each group had a high school education or less. Isaac M. Lipkus et al., *General Performance on a Numeracy Scale among Highly Educated Samples*, 21 MED. DECISION MAKING 39 tbl.1.

83. *Id.* at 40 tbl.2.

84. *Id.* at 40–41 tbls.2–3. The correct answers are 500 times, ten people, and 0.1%, respectively.

testing the assumptions upon which advertising regulations are based is clear.

Table 1
Descriptive Statistics for All Dependent Variables by Testimonial and Survey Disclosure Conditions (Experiment 1)

Dependent Variable	Testimonial Condition											
	No Testimonial						Testimonial					
	Survey Disclosure Condition			Favorable			Unfavorable			Survey Disclosure Condition		
	Unfavorable	None	Favorable	Unfavorable	None	Favorable	Unfavorable	None	Favorable	None	Favorable	
	M	SD	M	M	SD	M	M	SD	M	SD	M	SD
Purchase Intention	-1.34	2.64	.38	2.72	.86	2.59	-0.73	2.76	1.66	2.22	1.38	2.49
Purchase Decision	.29	.46	.62	.49	.72	.45	.42	.50	.81	.39	.74	.44
Purchase Likelihood	2.90	1.88	3.99	1.87	4.30	1.84	3.29	1.89	4.88	1.61	4.72	1.74
Purchase Interest	2.85	1.88	3.92	1.92	4.19	1.94	3.16	1.99	4.85	1.64	4.75	1.81
Opinion of Quality	-1.79	2.69	.02	2.49	.80	2.40	-1.18	2.80	1.03	2.21	.93	2.16
Quality	3.66	1.55	4.85	1.38	4.92	1.39	4.01	1.50	5.26	1.17	5.13	1.22
Quality v. Restaurant	2.81	1.42	3.60	1.40	4.02	1.36	3.20	1.64	4.20	1.25	4.12	1.20
Opinion Typicality	31.12	23.40	43.60	22.84	54.72	23.33	33.98	26.51	51.83	22.72	52.86	21.67
Interpretation of Advertisement	-3.23	3.45	.36	1.40	.52	1.36	-1.18	2.75	1.11	1.31	.74	1.26
Conveyed Quality	3.74	1.91	5.87	.78	5.94	1.10	5.62	1.67	6.39	.89	6.25	.85
Conveyed Quality v. Restaurant	3.26	1.79	5.14	.99	4.77	.94	4.65	1.50	4.98	1.01	4.78	.92
Conveyed Typicality	40.01	31.57	65.44	22.14	74.54	17.52	60.37	34.30	78.76	21.21	74.73	18.97

Table 2

Descriptive Statistics for All Dependent Variables by Testimonial and Survey Disclosure Conditions (Experiment 2)

Dependent Variable	Testimonial Condition												
	No Testimonial						Testimonial						
	Survey Disclosure Condition			Favorable			Unfavorable			Survey Disclosure Condition			
	Unfavorable	M	SD	None	M	SD	Favorable	M	SD	None	M	SD	Favorable
Purchase Intention	-2.23	2.94	.46	.72	2.56	1.15	2.17	-1.72	2.85	.71	2.34	1.24	2.08
Purchase Decision	.31	.78	.46	.77	.42	.83	.37	.37	.48	.79	.41	.87	.33
Purchase Likelihood	3.10	1.78	1.86	4.83	1.55	5.06	1.34	3.46	1.73	4.80	1.51	5.10	1.33
Purchase Interest	3.14	1.86	2.95	4.94	1.65	5.25	1.40	3.42	1.75	4.88	1.47	5.20	1.46
Opinion of Quality	-2.15	2.95	.62	2.28	1.27	2.08	2.08	-1.97	2.91	.70	1.87	1.40	1.90
Quality	3.93	1.43	5.33	1.14	5.49	1.06	1.06	3.95	1.52	5.35	.97	5.55	1.00
Quality v. Other	3.55	1.53	4.89	1.24	5.25	1.10	1.10	3.57	1.45	4.83	1.03	5.25	1.15
Opinion Typicality	37.14	26.60	59.17	23.48	66.40	20.81	20.81	40.95	26.33	61.94	20.77	69.00	17.85
Interpretation of Advertisement	-2.86	2.61	.52	1.10	1.45	1.34	1.34	-1.40	2.68	1.07	1.25	1.41	1.29
Conveyed Quality	3.58	1.62	5.87	.94	6.36	.85	.85	4.52	2.01	6.27	1.05	6.29	1.00
Conveyed Quality v. Other	3.35	1.66	5.58	.86	6.33	.86	.86	4.36	1.94	6.30	1.01	6.30	.91
Conveyed Typicality	34.69	27.61	76.36	16.51	78.14	17.02	17.02	49.08	29.67	68.76	27.40	78.31	15.67

Figure 1

Sample Advertisement from Experimental Materials in Experiment 1

...think that
 frozen pizza
 taste as
 as pizza from
 restaurant, but
 and's really
 good!"

Michael Antonio
 Chicago, IL

Nino's Gourmet
 Premium Pizza

mozzarella & pesto


**Bring Nino's
 Gourmet
 Frozen Pizza
 Home
 Today!**

* A recent research survey found that most people who try Nino's Pizza believe that it tastes at least as good as pizza sold in restaurants.

Figure 1 displays a version of the advertisement viewed by participants in Experiment 1. Whether the advertisement contained the testimonial at the top of the advertisement and what type of disclosure, if any, was at the bottom of the advertisement varied across experimental conditions. The above advertisement is from the *Testimonial with Favorable Survey Disclosure* condition.

Figure 2

Sample Advertisement from Experimental Materials in Experiment 2



"We've taken cruises on many cruise lines, and Crystal Cruises is the best!"

*- John and Karen Reynolds
San Diego, California*

**CRYSTAL
CRUISES**

*** A recent research survey found that most people who have taken cruises on both Crystal Cruises and on other cruise lines rated Crystal Cruises as the best.**

Figure 2 displays a version of the advertisement viewed by participants in Experiment 2. Whether the advertisement contained the testimonial at the top of the advertisement and what type of disclosure, if any, was at the bottom of the advertisement varied across experimental conditions. The above advertisement is from the *Testimonial with Favorable Survey Disclosure* condition.