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Ninety-one attempts to produce an attraction effect (involving a total of 23 product classes and 73 different decoyed choice sets) produced only 11 reliable effects-significantly fewer than expected given the statistical power of the studies. Cross-scenario analyses indicated that the use of meaningful qualitative-verbal descriptions, as well as pictorial depictions, to differentiate choice options substantially reduced the size of those effects. Indeed, the authors found attraction effects at only chance levels using these types of stimuli. The article concludes with a brief discussion of the implications of these findings for both marketing practice and research.

Keywords: decoys, attraction effect, decision making, consumer behavior, product positioning

## More Evidence Challenging the Robustness and Usefulness of the Attraction Effect

Marketing research has touted introducing a decoy option that is similar but inferior to a firm's own product as a potentially powerful marketing tactic that can be used to increase market share at the expense of a given competitor (e.g., Dooley 2012; Hoyer and MacInnis 2010). However, the positive effects of such asymmetrically dominated decoys (i.e., attraction effects) proved elusive in a series of studies by Frederick, Lee, and Baskin (2014). Specifically, they report difficulty replicating attraction effects using naturalistic choice stimuli (even using stimuli from successful, published studies) and hypothesize that perceptual representations of choice options do not lend themselves to the sorts of comparisons and mental processes that underlie the effect. Consistent with this hypothesis, they report on several experiments and find attraction effects when choice options were described numerically but not when those same options and attributes were visually depicted. They conclude that the attraction effect is not as robust or useful as is widely believed because it is limited to highly abstract and numeric stimulus presentations that differ from those in real-world marketing contexts.

[^0]In this article, we present additional evidence from an independently conducted program of research on the attraction effect that supports Frederick, Lee, and Baskin's (2014) conclusions. Like them, we also experienced difficulty producing attraction effects, even when using previously successful stimuli from published research and sample sizes comparable to those typical in the literature. Analyses of our data across scenarios (using attraction effect test as the unit of analysis) conceptually replicate their experimental findings that pictorial information attenuates the attraction effect and demonstrates that meaningful qualitative verbal information differentiating choice options (e.g., brand names, protein type, beverage type) also attenuates the effect. We present details about our methods and findings herein along with a brief discussion of their implications for marketing practice and research.

## EXPERIMENTAL METHODS

The current study comprises 11 experiments with multiple attraction effect choice scenarios in each (for a summary, see Table 1). Participants in Experiment 1 were a convenience sample of friends and acquaintances, those in Experiment 2 were undergraduate students, those in Experiment 4 were members of the public in an outdoor commons area of an upstate New York town, and those in the remaining experiments were recruited from Amazon.com's Mechanical Turk (MTurk). The experiments involved 91 attempts to produce the attraction effect using a total of 23 product classes under
Table 1
SUMMARY OF EXPERIMENTAL METHODS

| Experiment | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Format | Online | Online | Online | Paper/pen | Online | Online | Online | Online | Online | Online | Online |
| Participant pool | Convenience | Undergraduate students | MTurk | General population | MTurk | MTurk | MTurk | MTurk | MTurk | MTurk | MTurk |
| Personality scale | REI (short) | REI (long) | None | None | CRT | CRT | CRT | CRT | CRT | None | None |
| Number of choice scenarios | - 7 | 10 | 3 | 12 | 6 | 2 | 5 | 6 | 2 | 1 | 1 |
| Number of decoy scenarios | 14 | 20 | 3 | 12 | 12 | 3 | 10 | 12 | 2 | 1 | 1 |
| Presentation Order |  |  |  |  |  |  |  |  |  |  |  |
| Scenarios | Randomized | Randomized | Fixed | Fixed | Randomized | Randomized | Randomized | Randomized | Randomized | Randomized | Randomized |
| Options | Randomized | Randomized | Fixed | Fixed | Randomized | Randomized | Randomized | Randomized | Randomized | Randomized | Randomized |
| Random Assignment of Participants to Conditions by Scenario |  |  |  |  |  |  |  |  |  |  |  |
| Participant | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Scenario | Yes | Yes | No | No | Yes | Yes | Yes | Yes | Yes | N.A. | N.A. |
| Sample Size Range per Scenario Condition |  |  |  |  |  |  |  |  |  |  |  |
| Control | 25-30 | 20-84 | 60 | 55-56 | 69-96 | 13-53 | 58-69 | 87-118 | 98-102 | 74 | 209 |
| Treatment | 26-37 | 18-95 | 58 | 56-60 | 65-126 | 16-47 | 51-75 | 81-120 | 100-102 | 83 | 212 |
| Total sample size | 90 | 232 | 118 | 116 | 227 | 100 | 192 | 263 | 373 | 157 | 421 |

73 different decoyed choice sets. We refined the stimuli used in each successive study to include choice scenarios that more closely mirrored those of previous successful experiments. Full reproductions of the stimuli are available in Web Appendix A, and the observed choice counts are available in Web Appendix B.

Each choice scenario had at least two test conditions: a two-option control condition and a three-option decoy condition in which one control condition option was positioned as an asymmetrically dominating target option. Most choice scenarios also administered a third test condition in which the remaining control condition option was positioned as the asymmetrically dominating target option. All experiments employed a between-subjects design with random assignment of participants to conditions. All but two experiments used separate randomization of treatment condition for each choice scenario as well as randomization of the choice scenarios themselves and the options within each scenario.

At minimum, two pieces of data were collected for each participant-choice scenario combination: the participant's experimental condition and the option he or she chose from the provided alternatives. Other data collected varied by experiment but typically included participant demographics and scores on measures of thinking styles/preferences. ${ }^{1}$

## RESULTS

We measured the existence and strength of an attraction effect for each choice scenario as the difference between the control condition and decoy condition choice shares for target X and competitor Y . We performed chi-square tests on each decoy scenario to determine whether the difference between control and decoy scenarios was statistically significant. Consistent with prior studies, we ignored decoy shares when calculating target and competitor shares. Table 2 summarizes choice probability and chi-square results from each experiment choice scenario.

Overall, we observed attraction effects across scenarios at a proportion greater than chance. Eleven of the 91 (12.1\%) choice scenarios produced statistically significant attraction effects for the target (at $p<.05$ ), and no scenarios produced statistically significant effects for the competitor. The 12\% of statistically significant attraction effects was reliably greater than the $5 \%$ that chance alone would predict (Binomial test $p<.003$ ). However, the percentage of significant attraction effects was significantly lower than the expected rate of $29.5 \%$ according to power analyses assuming a true effect size of an $11.4 \%$ share shift (Binomial test $p<.001$ ), which is the mean effect size reported in Heath and Chatterjee's (1995) meta-analysis. ${ }^{2}$ Overall, we were able to create the attraction effect at better-than-chance rates, but the effect was not consistently reproducible across scenarios.

A total of 37 of our 91 scenarios involved only numeric descriptions of the attributes to differentiate choice options, while 54 involved either some pictorial depictions of the options ( $\mathrm{n}=12$ ) or qualitative descriptions that meaning-

[^1]fully differentiated the options (e.g., brand name, protein type, beverage type; $n=42$ ). Nine of the 37 scenarios with only numeric product descriptions ( $23.7 \%$ ) produced significant attraction effects, whereas only 2 of the 54 scenarios with some qualitative description or pictorial depiction of the choice options (3.7\%) produced significant attraction effects. ${ }^{3}$ This difference in rate of producing attraction effects was statistically significant $\left(\chi^{2}(1)=8.79, p<.005\right)$. The average effect size for scenarios with only numeric descriptions of the choice options was a share shift of $8.0 \%$ in favor of the target, and the average effect size for scenarios involving some meaningful nonnumeric description of the choice options was a significantly smaller share shift of $1.1 \%$ in favor of the target $(\mathrm{t}(89)=3.08, p<.005)$. We obtained comparable results for separate comparisons of effect sizes for numeric versus pictorial representations $\left(\mathrm{M}_{\text {numeric }}=8.0 \%\right.$ vs. $\left.\mathrm{M}_{\text {pictorial }}=.88 \% ; \mathrm{t}(47)=1.89, p<.07\right)$ and for numeric versus qualitative-verbal representations $\left(\mathrm{M}_{\text {qualitative }}=1.20 \% ; \mathrm{t}(77)=2.83, p<.007\right)$. Pictorial and qualitative-verbal representations of choice options did not reliably differ in the size of the attraction effect they produced $\left(\mathrm{M}_{\text {pictorial }}=.88 \%\right.$ vs. $\mathrm{M}_{\text {qualitative }} 1.20 \% ; \mathrm{t}(52)=.10$, n.s.). ${ }^{4}$ These findings provide an independent conceptual replication of Frederick, Lee, and Baskin's (2014) experimental results and indicate that a broader array of nonnumeric representations of choice options than those used in their experiments attenuate the effect.

## DISCUSSION

The results from this study join those of Frederick, Lee, and Baskin (2014) in suggesting that the attraction effect is less robust and useful than widely believed. Like them, we found the effect to be more difficult to replicate than expected given the statistical power of our studies. Consistent with their explanation for these replication problems, cross-scenario analyses of our data indicate that use of meaningful qualitative-verbal descriptions, as well as pictorial depictions, to differentiate choice options significantly reduced the size of our effects. Indeed, we found attraction effects only at chance levels using these types of stimuli, but the effects were produced at expected levels when we used only numeric representations of choice attributes. These findings are not promising for practitioners who hope to employ asymmetric decoy tactics as a way to increase market share for a targeted product because verbal descriptions and/or pictorial depictions of choice options are common in real-world marketing contexts. As such, these findings also highlight Meyer's (2013) point that academic marketing researchers face the key challenge of ensuring that research is both relevant and credible.

The prevalent use of highly abstract and unrealistic product depictions in the attraction effect literature suggests that academics have placed too little value on the ecological

[^2]Table 2
CHI-SQUARED SUMMARY RESULTS BY CHOICE SCENARIOS

| Scenario ID Number | Product | Product Picture | All-Numeric Descriptor | Attribute A | Dimension $B$ | Relative \% Share |  |  |  | Effect Size | $\chi^{2}$ | p-Value |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Control |  | Decoy |  |  |  |  |
|  |  |  |  |  |  | C | $T$ | C | $T$ |  |  |  |
| E1Q1Da | Wine (bottle, white ) | No | No | Quality (region) | Price | 51.9\% | 48.1\% | 52.0\% | 48.0\% | -.1\% | . 00 | . 99 |
| E1Q1Db | Wine (bottle, red) | No | No | Quality (region) | Price | 48.1\% | 51.9\% | 42.1\% | 57.9\% | 6.0\% | . 16 | . 69 |
| E1Q2Da | Sandwich (Philly cheesesteak) | No | No | Calories | Price | 69.2\% | 30.8\% | 55.9\% | 44.1\% | 13.3\% | 1.11 | . 29 |
| E1Q2Db | Sandwich (Reuben) | No | No | Calories | Price | 30.8\% | 69.2\% | 47.6\% | 52.4\% | -16.8\% | 1.40 | . 24 |
| E1Q3Da | Wine (bottle) | No | Yes | Price | Quality score | 92.6\% | 7.4\% | 92.3\% | 7.7\% | .3\% | . 00 | . 97 |
| E1Q3Db | Wine (bottle) | No | Yes | Price | Quality score | 7.4\% | 92.6\% | 7.1\% | 92.9\% | .3\% | . 00 | . 97 |
| E1Q4Da | Beer | No | No | Size, quality | Price | 29.6\% | 70.4\% | 32.1\% | 67.9\% | -2.5\% | . 04 | . 84 |
| E1Q4Db | Wine (glass, red) | No | No | Quality | Price | 70.4\% | 29.6\% | 78.6\% | 21.4\% | -8.2\% | . 49 | . 49 |
| E1Q5Da | Entrée salads (chicken) | No | No | Protein, price | Calories | 20.0\% | 80.0\% | 25.0\% | 75.0\% | -5.0\% | . 20 | . 66 |
| E1Q5Db | Entrée salads (steak) | No | No | Protein, price | Calories | 80.0\% | 20.0\% | 76.9\% | 23.1\% | 3.1\% | . 07 | . 79 |
| E1Q6Da | Pizza | No | No | Delivery time | Quality | 23.3\% | 76.7\% | 30.3\% | 69.7\% | -7.0\% | . 39 | . 53 |
| E1Q6Db | Pizza | No | No | Delivery time | Quality | 76.7\% | 23.3\% | 68.2\% | 31.8\% | 8.5\% | . 46 | . 50 |
| E1Q7Da | Steak | No | No | Quality (cut) | Price | 46.7\% | 53.3\% | 9.5\% | 90.5\% | 37.1\% | 7.92 | . 00 |
| E1Q7Db | Steak | No | No | Quality (cut) | Price | 53.3\% | 46.7\% | 52.0\% | 48.0\% | 1.3\% | . 01 | . 92 |
| E2Q1Da | Wine (bottle, red) | No | No | Quality | Price | 38.1\% | 61.9\% | 44.6\% | 55.4\% | -6.5\% | . 69 | . 41 |
| E2Q1Db | Wine (bottle, white ) | No | No | Quality | Price | 61.9\% | 38.1\% | 62.9\% | 37.1\% | -1.0\% | . 02 | . 90 |
| E2Q2Da | Wine (bottle) | No | Yes | Price | Quality score | 35.1\% | 64.9\% | 30.4\% | 69.6\% | 4.6\% | . 35 | . 55 |
| E2Q2Db | Wine (bottle) | No | Yes | Price | Quality score | 64.9\% | 35.1\% | 39.7\% | 60.3\% | 25.2\% | 9.86 | . 00 |
| E2Q3Da | Cruise | No | No | Price | Length | 70.3\% | 29.7\% | 73.2\% | 26.8\% | -3.0\% | . 16 | . 69 |
| E2Q3Db | Cruise | No | No | Price | Length | 29.7\% | 70.3\% | 31.5\% | 68.5\% | -1.8\% | . 05 | . 82 |
| E2Q4Da | Entrée | No | No | Type | Price | 79.1\% | 20.9\% | 70.7\% | 29.3\% | 8.4\% | 1.18 | . 28 |
| E2Q4Db | Entrée | No | No | Type | Price | 20.9\% | 79.1\% | 25.4\% | 74.6\% | -4.5\% | . 38 | . 54 |
| E2Q5Da | Frozen entrée | No | No | Type, calories | Price | 60.0\% | 40.0\% | 74.3\% | 25.7\% | -14.3\% | 1.22 | . 27 |
| E2Q5Db | Frozen entrée | No | No | Type, calories | Price | 40.0\% | 60.0\% | 41.2\% | 58.8\% | -1.2\% | . 01 | . 94 |
| E2Q6Da | Flight | No | No | Carrier, stops | Price | 51.2\% | 48.8\% | 38.7\% | 61.3\% | 12.6\% | 2.49 | . 11 |
| E2Q6Db | Flight | No | No | Carrier, stops | Price | 48.8\% | 51.2\% | 60.3\% | 39.7\% | -11.5\% | 1.98 | . 16 |
| E2Q7Da | Vacation package | No | No | Length | Features and price | 29.7\% | 70.3\% | 26.8\% | 73.2\% | 3.0\% | . 16 | . 69 |
| E2Q7Db | Vacation package | No | No | Length | Features and price | 70.3\% | 29.7\% | 68.5\% | 31.5\% | 1.8\% | . 05 | . 82 |
| E2Q8Da | Hotel | No | Yes | Distance | Price | 63.2\% | 36.8\% | 60.2\% | 39.8\% | 3.0\% | . 14 | . 71 |
| E2Q8Db | Hotel | No | Yes | Distance | Price | 36.8\% | 63.2\% | 22.5\% | 77.5\% | 14.2\% | 3.38 | . 07 |
| E2Q9Da | Chinese takeout | No | No | Fat | Price | 61.5\% | 38.5\% | 68.8\% | 31.3\% | -7.2\% | . 33 | . 57 |
| E2Q9Db | Chinese takeout | No | No | Fat | Price | 38.5\% | 61.5\% | 31.6\% | 68.4\% | 6.9\% | . 32 | . 57 |
| E2Q10Da | Cappuccino | No | No | Calories | Price | 22.2\% | 77.8\% | 28.6\% | 71.4\% | -6.3\% | . 32 | . 57 |
| E2Q10Db | Latte | No | No | Calories | Price | 77.8\% | 22.2\% | 66.7\% | 33.3\% | 11.1\% | . 87 | . 35 |
| E3Q1Da | Steak | No | No | Quality (cut) | Price | 21.7\% | 78.3\% | 26.7\% | 73.3\% | -5.0\% | . 35 | . 55 |
| E3Q2Da | Pizza | No | Yes | Delivery time | Quality | 21.7\% | 78.3\% | 17.2\% | 82.8\% | 4.4\% | . 37 | . 54 |
| E3Q3Da | Wine (bottle) | No | Yes | Price | Quality score | 28.3\% | 71.7\% | 35.6\% | 64.4\% | -7.2\% | . 62 | . 43 |
| E4Q1Da | Flight | No | No | Price | Fees | 30.4\% | 69.6\% | 37.5\% | 62.5\% | -7.1\% | . 64 | . 42 |
| E4Q2Da | Pizza | No | No | Delivery time | Quality | 32.1\% | 67.9\% | 28.8\% | 71.2\% | 3.3\% | . 15 | . 70 |
| E4Q3Db | Entrée | No | No | Calories | Price | 55.4\% | 44.6\% | 42.2\% | 57.8\% | 13.1\% | 1.72 | . 19 |
| E4Q4Db | Beer | No | No | Quality, size | Price | 42.9\% | 57.1\% | 37.8\% | 62.2\% | 5.1\% | . 27 | . 61 |
| E4Q5Da | Wine (bottle) | No | Yes | Price | Quality score | 44.6\% | 55.4\% | 26.7\% | 73.3\% | 18.0\% | 3.47 | . 06 |
| E4Q6Da | Chinese takeout | No | No | Protein | Price | 17.9\% | 82.1\% | 9.1\% | 90.9\% | 8.8\% | 1.57 | . 21 |
| E4Q7Da | Soda | Yes | No | Quality (brand) | Price | 44.6\% | 55.4\% | 45.6\% | 54.4\% | -1.0\% | . 01 | . 92 |
| E4Q8Da | Flight | No | Yes | Stops | Price | 44.6\% | 55.4\% | 53.1\% | 46.9\% | -8.4\% | . 74 | . 39 |
| E4Q9Db | Phone plan | No | Yes | Minutes | Price | 14.3\% | 85.7\% | 13.6\% | 86.4\% | .6\% | . 01 | . 93 |
| E4Q10Da | Hotel | No | Yes | Distance | Price | 43.6\% | 56.4\% | 54.5\% | 45.5\% | -10.9\% | 1.31 | . 25 |

Table 2
CONTINUED

| Scenario ID Number | Product | Product All-Numeric <br> Picture Descriptor |  | Attribute A | Dimension B | Relative \% Share |  |  |  | Effect Size | $\chi^{2}$ | p-Value |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Control |  | Decoy |  |  |  |  |
|  |  |  |  | C |  | $T$ | C | $T$ |  |  |  |
| E4Q11Da | Fish entrée | No | No |  | Type and quality | Price | 44.6\% | 55.4\% | 40.0\% | 60.0\% | 4.6\% | . 21 | . 65 |
| E4Q12Db | Steak | No | No |  | Quality (cut) | Price | 42.9\% | 57.1\% | 48.8\% | 51.2\% | -6.0\% | . 35 | . 55 |
| E5Q1Da | Beer (six-pack) | No | Yes | Price | Quality score | 34.2\% | 65.8\% | 34.2\% | 65.8\% | .1\% | . 00 | . 99 |
| E5Q1Db | Beer (six-pack) | No | Yes | Price | Quality score | 65.8\% | 34.2\% | 80.9\% | 19.1\% | -15.1\% | 4.09 | . 04 |
| E5Q2Da | Wine (bottle) | No | Yes | Price | Quality score | 50.0\% | 50.0\% | 53.2\% | 46.8\% | -3.2\% | . 14 | . 71 |
| E5Q2Db | Wine (bottle) | No | Yes | Price | Quality score | 50.0\% | 50.0\% | 29.8\% | 70.2\% | 20.2\% | 6.85 | . 01 |
| E5Q3Da | Restaurant | No | Yes | Distance | Quality score | 36.5\% | 63.5\% | 26.7\% | 73.3\% | 9.8\% | 1.66 | . 20 |
| E5Q3Db | Restaurant | No | Yes | Distance | Quality score | 63.5\% | 36.5\% | 45.1\% | 54.9\% | 18.4\% | 4.97 | . 03 |
| E5Q4Da | Breakfast sandwich | Yes | No | Calories | Fat | 47.9\% | 52.1\% | 48.1\% | 51.9\% | -. $2 \%$ | . 00 | . 97 |
| E5Q4Db | Breakfast sandwich | Yes | No | Calories | Fat | 52.1\% | 47.9\% | 53.7\% | 46.3\% | -1.6\% | . 04 | . 83 |
| E5Q5Da | Pastry | Yes | No | Type | Calories/fat | 75.4\% | 24.6\% | 77.2\% | 22.8\% | -1.8\% | . 06 | . 81 |
| E5Q5Db | Pastry | Yes | No | Type | Calories/fat | 24.6\% | 75.4\% | 18.8\% | 81.2\% | 5.8\% | . 68 | . 41 |
| E5Q6Da | Soda | Yes | No | Calories | Sugars | 20.8\% | 79.2\% | 18.5\% | 81.5\% | 2.3\% | . 12 | . 73 |
| E5Q6Db | Soda | Yes | No | Calories | Sugars | 79.2\% | 20.8\% | 83.5\% | 16.5\% | -4.3\% | . 48 | . 49 |
| E6Q1Da | Date prospect | Yes | No | Facials A | Facials B | 84.6\% | 15.4\% | 56.3\% | 43.8\% | 28.4\% | 2.70 | . 10 |
| E6Q1Db | Date prospect | Yes | No | Facials A | Facials B | 15.4\% | 84.6\% | 20.0\% | 80.0\% | -4.6\% | . 12 | . 73 |
| E6Q2Db | The Economist | No | No | Price | Features | 88.7\% | 11.3\% | 83.7\% | 16.3\% | 5.0\% | . 50 | . 48 |
| E7Q1Da | Beer (six-pack) | No | Yes | Price | Quality score | 76.8\% | 23.2\% | 62.1\% | 37.9\% | 14.7\% | 3.44 | . 06 |
| E7Q1Db | Beer (six-pack) | No | Yes | Price | Quality score | 23.2\% | 76.8\% | 11.3\% | 88.7\% | 11.9\% | 2.86 | . 09 |
| E7Q2Da | Laptop | No | Yes | RAM | Battery life | 25.9\% | 74.1\% | 14.9\% | 85.1\% | 10.9\% | 2.32 | . 13 |
| E7Q2Db | Laptop | No | Yes | RAM | Battery Life | 74.1\% | 25.9\% | 69.5\% | 30.5\% | 4.6\% | . 31 | . 58 |
| E7Q3Da | Wine (bottle) | No | Yes | Price | Quality score | 51.6\% | 48.4\% | 20.7\% | 79.3\% | 30.9\% | 12.46 | . 00 |
| E7Q3Db | Wine (bottle) | No | Yes | Price | Quality score | 48.4\% | 51.6\% | 36.4\% | 63.6\% | 12.1\% | 1.94 | . 16 |
| E7Q4Da | Restaurant | No | Yes | Distance | Quality score | 46.7\% | 53.3\% | 23.2\% | 76.8\% | 23.5\% | 7.87 | . 01 |
| E7Q4Db | Restaurant | No | Yes | Distance | Quality score | 53.3\% | 46.7\% | 48.4\% | 51.6\% | 4.9\% | . 30 | . 58 |
| E7Q5Da | Steak | No | No | Quality (cut) | Price | 17.2\% | 82.8\% | 17.5\% | 82.5\% | -.3\% | . 00 | . 97 |
| E7Q5Db | Steak | No | No | Quality (cut) | Price | 82.8\% | 17.2\% | 87.9\% | 12.1\% | -5.1\% | . 63 | . 43 |
| E8Q1Da | Beer (six-pack) | No | Yes | Price | Quality score | 84.9\% | 15.1\% | 55.8\% | 44.2\% | 29.2\% | 20.30 | . 00 |
| E8Q1Db | Beer (six-pack) | No | Yes | Price | Quality score | 15.1\% | 84.9\% | 9.4\% | 90.6\% | 5.6\% | 1.31 | . 25 |
| E8Q2Da | Laptop | No | Yes | RAM | Battery life | 28.0\% | 72.0\% | 12.8\% | 87.2\% | 15.1\% | 6.29 | . 01 |
| E8Q2Db | Laptop | No | Yes | RAM | Battery life | 72.0\% | 28.0\% | 76.0\% | 24.0\% | -4.0\% | . 44 | . 51 |
| E8Q3Da | Wine (bottle) | No | Yes | Price | Quality score | 51.1\% | 48.9\% | 17.1\% | 82.9\% | 34.0\% | 22.03 | . 00 |
| E8Q3Db | Wine (bottle) | No | Yes | Price | Quality score | 48.9\% | 51.1\% | 40.3\% | 59.7\% | 8.6\% | 1.55 | . 21 |
| E8Q4Da | Restaurant | No | Yes | Distance | Quality score | 33.0\% | 67.0\% | 30.5\% | 69.5\% | 2.5\% | . 13 | . 72 |
| E8Q4Db | Restaurant | No | Yes | Distance | Quality score | 67.0\% | 33.0\% | 53.9\% | 46.1\% | 13.1\% | 3.50 | . 06 |
| E8Q5Da | Steak | No | No | Quality (cut) | Price | 20.7\% | 79.3\% | 7.6\% | 92.4\% | 13.1\% | 5.05 | . 02 |
| E8Q5Db | Steak | No | No | Quality (cut) | Price | 79.3\% | 20.7\% | 83.5\% | 16.5\% | -4.2\% | . 52 | . 47 |
| E8Q6Da | Soda | Yes | No | Quality (brand) | N.A. | 64.4\% | 35.6\% | 61.4\% | 38.6\% | 3.0\% | . 18 | . 68 |
| E8Q6Db | Soda | Yes | No | Quality (brand) | N.A. | 35.6\% | 64.4\% | 41.4\% | 58.6\% | -5.8\% | . 73 | . 39 |
| E9Q1Da | Wine (bottle) | No | Yes | Price | Quality score | 25.5\% | 74.5\% | 20.8\% | 79.2\% | 4.7\% | . 60 | . 44 |
| E9Q2Da | Wine (bottle) labels | Yes | No | Price | Quality score | 34.3\% | 65.7\% | 43.8\% | 56.2\% | -9.5\% | 1.63 | . 20 |
| E10Q1Da | Refrigerators | No | Yes | Operating cost | Freeze time | 48.6\% | 51.4\% | 57.8\% | 42.2\% | -9.2\% | 1.33 | . 25 |
| E11Q1Da | Binoculars | No | Yes | Price | Power | 58.7\% | 41.3\% | 49.6\% | 50.4\% | 9.1\% | 2.31 | . 13 |
| E11Q2Da | Refrigerators | No | Yes | Operating cost | Freeze time | 45.5\% | 54.5\% | 36.4\% | 63.6\% | 9.1\% | 1.02 | . 31 |

validity and practical utility of findings in this area. ${ }^{5}$ To enhance its relevance to marketing practice, further research on the attraction effect should use more ecologically valid stimuli. Although we found significant attraction effects at only chance rates when using qualitative and pictorial information about the choice options, it remains possible that some circumstances exist in which the effect can be reliably produced with these stimuli. Indeed, there are numerous published findings of attraction effects using nonnumeric descriptions/depictions of the choice options in addition to those that we and Frederick, Lee, and Baskin (2014) failed to replicate (see Choplin and Hummel 2005; Chuang and Yen 2007; Fasolo et al. 2006; Pan, O’Curry, and Pitts 1995; Shafir, Waite, and Smith 2002; Slaughter, Bagger, and Li 2006; Slaughter, Sinar, and Highhouse 1999). Thus, further research exploring the conditions under which these stimuli produce the effect is worth pursuing. More generally, academic marketing researchers should observe from this body of literature how easy it is to generate a theory-practice gap (Meyer 2013) and should remain vigilant to ensure that marketing research is not only scientifically credible but also relevant to marketing practice.

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[^1]:    ${ }^{1}$ Analyses of the potentially moderating effects of thinking style did not support expectations that intuitive thinkers would exhibit stronger attraction effects (see Web Appendix C).
    ${ }^{2}$ We calculated the power of detecting a difference in proportions for each scenario using the scenario's sample sizes in each condition, the target's share in the control condition as $\mathrm{P}_{1}, \mathrm{P}_{1}+.114$ as $\mathrm{P}_{2}$, and an alpha of .05 .

[^2]:    ${ }^{3}$ The success rate with only numeric stimuli seems low given a casual reading of the literature, but it is not reliably smaller than expected according to the power analyses described previously (for details, see Web Appendix D).
    ${ }^{4}$ Repeating these analyses while statistically controlling for experiment produced essentially the same results as those reported in the text.

[^3]:    ${ }^{5}$ The same is true of the widespread practice of comparing the targetdecoy share (from set $\left\{\mathrm{T}, \mathrm{C}, \mathrm{D}_{\mathrm{T}}\right\}$ ) with the target's share in a competitordecoy scenario (from set $\left\{T, C, D_{C}\right\}$ ). For details, see Web Appendix D.

