Let's Speculate About It: When and Why Consumers Want to Discuss Mystery Products

Aleksandra Kovacheva  
*University at Albany, State University of New York*, akovacheva@albany.edu

Hillary Wiener  
*University at Albany, State University of New York*, hwiener@albany.edu

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LET’S SPECULATE ABOUT IT:
WHEN AND WHY CONSUMERS WANT TO DISCUSS MYSTERY PRODUCTS

Aleksandra Kovacheva
Hillary J.D. Wiener

University at Albany, State University of New York, USA

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Abstract

Research suggests that mystery products can be appealing to consumers and can motivate interest and purchase. In this paper, we examine a different benefit of these offerings – their effect on driving conversation. We propose that such products can prompt a conversation due to their ability to motivate joint speculation, or the process of thinking about possible resolutions of the uncertainty with others. We define this novel driver of conversation, delineate it from related constructs, and situate it in the literature. We then provide initial evidence for the proposed theory in seven studies ($n = 2,835$), demonstrating that mystery products increase the desire for conversation (Studies 1, 3-4, Supplemental studies A-C) and generate joint speculation (Studies 2-4, Supplemental study B-C). We also rule out alternative explanations (such as information acquisition and savoring, Study 3; novelty, Supplemental study B). These effects, however, are attenuated for closed-minded consumers (Study 4) who are less open to considering multiple perspectives and thereby less interested in joint speculation. We conclude with directions for future research and implications for marketers.

*Key words:* mystery consumption, uncertain marketing tactics, surprise products, word of mouth, joint speculation, sharing, communication
The rise of mystery (or surprise) offerings – products and services with some concealed characteristics that are revealed once received – in the marketplace suggests a shift in our understanding of uncertainty from something undesirable (Gneezy et al., 2006) to a technique that can spark consumer interest and engagement (Kovacheva & Nikolova 2023; see Figure 1). While work has shown that consumers respond positively to mystery products (Buechel & Li 2023; Goldsmith & Amir, 2010), it has largely focused on purchase intentions and attitudes and ignored other – equally important – downstream consequences, such as word of mouth (WOM). We contribute to this literature by demonstrating that concealing some non-negative aspects of a product (such as its flavor or color) can – in some cases – enhance the desire for conversation.

Figure 1: Examples of recent mystery products
Intuitively, one may predict that mystery offerings generate less conversation as less is known about the product, thereby decreasing the usefulness (and thus likelihood) of conversation (Moldovan et al., 2011). Indeed, consumers are more likely to talk about products they have experience with (Berger & Schwartz, 2011). Yet, we argue that even when consumers lack direct knowledge or experience about a product, they may still be motivated to talk about the item with others if there is an opportunity for *joint speculation*.

Speculating means “to indulge in conjectural thought” (Dictionary, 2021), or to think about possibilities without having much evidence to support them. Building on this definition, we conceptualize joint speculation as the exchange of conjectural ideas or opinions about something that is uncertain to all conversation partners. Joint speculation is inherently social but, in contrast to other forms of word of mouth (WOM), the conversation largely focuses on what is unknown (vs. known) about the purchase. Thus, both the purchaser and respondents can jointly develop ideas about potential resolutions.

Several important characteristics delineate joint speculation from other related constructs (see Table 1) and conversation drivers. First, as a social process, joint speculation is distinct from individual experiences such as mental imagery, savoring, and anticipation. Second, unlike anticipation which is focused on one’s own experience and forward-looking, consumers may speculate jointly about past, present, or future uncertain outcomes. Third, joint speculation is not meant to result in outcome resolution; as the uncertainty is determined exogenously (e.g., by the firm, for mystery offerings), talking about the mystery (vs. certain) product with others is unlikely to close the knowledge gap. Finally, joint speculation – in general – need not occur only for positive or desirable uncertain outcomes (e.g., consumers can speculate about the onset of an economic downturn), differentiating the construct from savoring or shared enjoyment.
Table 1: Joint speculation and related constructs

<table>
<thead>
<tr>
<th>Related construct</th>
<th>Definition</th>
<th>Relation to joint speculation (JS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anticipation</td>
<td>“A mental process by which consumers consider the physical, experiential, social, emotional, or behavioral consumption outcomes that are expected to accrue to the self from a yet to be realized consumption decision or experience” (Vichiengior et al., 2019; p. 132)</td>
<td>Anticipation is an individual, forward-looking process focused on the self, while JS involves a bi-directional exchange with a conversation partner which can be about something uncertain that happened in the past or is happening in the present and is still unresolved.</td>
</tr>
<tr>
<td>Brainstorming</td>
<td>A process of creative deliberation in which one or more people spontaneously generate ideas to try to find a solution to a particular problem (Putman &amp; Paulus, 2009; Dugosh et al., 2000)</td>
<td>While both JS and brainstorming involve idea generation about a topic, they differ in purpose and structure. Brainstorming often involves more focused effort than does JS, which is more casual. The ultimate goal of brainstorming is to select the best solution out of a large set of ideas; in contrast, the ideas generated in JS do not provide a solution to the uncertainty (i.e., do not resolve it) as it is exogenous to the conversation parties. Finally, brainstorming can be done alone, while joint speculation is a group process.</td>
</tr>
<tr>
<td>Mental imagery</td>
<td>A process “by which sensory information is represented in working memory” (MacInnis &amp; Price, 1987; p. 473).</td>
<td>Mental imagery is focused on the individual’s mental representations and could occur even when there is full certainty about the subject of imagery.</td>
</tr>
<tr>
<td>Savoring</td>
<td>A mindful appreciation of the pleasure experienced when thinking about an enjoyable past, ongoing, or forthcoming experience (Chun et al., 2017; Alba &amp; Williams, 2013)</td>
<td>Savoring is an individual experience and focuses one’s attention on one’s current experience of pleasure. In contrast, JS is a social process and need not focus on positive experiences.</td>
</tr>
</tbody>
</table>

Why would mystery (vs. certain) products motivate joint speculation? While speculation is possible for certain offerings due to natural variability (e.g., Will it taste as good?), the unknown is more focal and consequential in mystery products, prompting consumers to generate ideas about the unknown attributes or possible outcomes. Indeed, prior research has shown that,
when unable to resolve uncertainty through collecting information, consumers think about and mentally simulate possible resolutions (Lee & Qiu, 2009; MacInnis & Price, 1987). We extend this work by suggesting that mystery offerings can motivate not only solo mental imagery, but also speculation with others. Importantly, we propose that joint speculation, in turn, can motivate WOM as consumers seek conversation to generate more conjectural thoughts and ideas about the uncertain outcome. This is consistent with research showing that idea generation is more productive and pleasant with others (vs. alone; Nijstad et al., 1999) and with work showing that consumers use conversations strategically (Teeny et al., 2020).

We base our proposition that mystery offerings will result in joint speculation on the idea that speculating provides utility to consumers, such as making a conversation more engaging or allowing one to make sense of the uncertain characteristic, thereby managing one’s emotional response to it. A speculative conversation about mystery flavor cookies, for instance, may bring up a wide range of possible flavors, making for an interesting discussion and possibly decreasing the subjective feeling of uncertainty (but not resolving the unknown). Yet, mystery offerings may not always lead to joint speculation and conversation. Consumers may be discouraged from speculating with others when speculative thoughts are hard to generate or when speculation might result in unproductive or unpleasant experiences. For example, if one is unwilling to consider different outcomes and perspectives due to closed-mindedness and cognitive rigidity, one will be less likely to engage in joint speculation.

To the best of our knowledge, this is the first paper to examine the effect of mystery products on the desire for conversation and to identify joint speculation as a novel driver of WOM. We next present four studies (with three supplemental studies in MDA) that provide support for the proposed theory (see Table 2 for studies overview). In this work, we focus on
everyday products, such as socks, snacks, and coffee, which are commonly offered in mystery boxes (Buechel & Li, 2023; Kovacheva et al., 2022; see Figure 1), but discuss the implications of our theory to other contexts involving uncertainty in the General Discussion. We report all data exclusions and manipulations; stimuli and additional analyses are in the Methodological Details Appendix (MDA).

**Table 2: Overview of studies**

<table>
<thead>
<tr>
<th>Study</th>
<th>Goal</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Examine the main effect: Do mystery (vs. certain) products motivate a greater desire for conversation with close others?</td>
<td>Sample: 599 MTurk participants ($M_{age} = 38.34$, $SD = 12.22$, 57.8% female)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DV: Likelihood to talk about the product</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Design: 2 (certain vs. mystery product) x 3 (category: cookies, mask, socks)</td>
</tr>
<tr>
<td></td>
<td>Supplemental study A (see MDA)</td>
<td>Examine the main effect, using a different measure of WOM and provide additional evidence that mystery products increase joint speculation.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DV: Choice of conversation topic: (mystery vs. certain) drink recipe or today’s weather</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Design: Certain vs. mystery seasonal drink recipe</td>
</tr>
<tr>
<td>2</td>
<td>Examine the proposed process: Are conversations about mystery (vs. certain) products more likely to involve joint speculation?</td>
<td>Sample: 282 conversations generated by 564 Prolific participants (purchasers: $M_{age} = 36.87$, $SD = 13.16$, 54.3% female; respondents: $M_{age} = 40.55$, $SD = 15.16$, 49.3% female)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DV: Presence of speculation in each conversation (yes/ no)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Design: Certain vs. mystery cookies</td>
</tr>
<tr>
<td>3</td>
<td>Examine the underlying mechanism via measured mediation and rule out alternative explanations.</td>
<td>Sample: 231 MTurk participants ($M_{age} = 38.46$, $SD = 11.30$, 53.2% female)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DV: Likelihood to talk about the product</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Design: Certain vs. mystery coffee drink</td>
</tr>
</tbody>
</table>

Supplemental study B (see MDA) | Tease apart the role of uncertainty and novelty: Will the difference between the mystery and certain product be observed even when the certain product is perceived as more novel (but less uncertain)? | Sample: 296 Connect Cloud Research participants ($M_{age} = 40.61$, $SD = 12.17$, 50.3% female) |
|       |       | DV: Likelihood to talk about the product |
|       |       | Design: Certain vs. mystery box of cookies |
Examine a boundary condition: Does the purchaser’s closed-mindedness attenuate joint speculation, thereby decreasing the desire to talk about mystery (vs. certain) products?

Sample: 377 MTurk participants ($M_{age} = 38.89, SD = 10.60, 36.9\%$ female)

$DV$: Likelihood to talk about the product

$Design$: Certain vs. mystery cookies (manipulated) by dogmatism (measured)

Supplemental study C (see MDA)
Examine a different boundary condition: Does the respondent’s pessimism attenuate joint speculation and conversation intentions?

Sample: 484 MTurk participants ($M_{age} = 40.48, SD = 12.76, 58.5\%$ female)

$DV$: Likelihood to talk about the product

$Design$: 2 (certain vs. mystery cookies) x 3 (friend profile: optimist, pessimist, baseline)

**STUDY 1: THE EFFECT**

**Method**

Participants ($n = 610$) completed a 2 (certainty: mystery, certain product) by 3 (product category: mask, cookies, socks) study with random assignment to condition on MTurk through Cloud Research (Litman et al., 2017). Those who passed the attention checks ($n = 599$) were retained for analysis. In all studies, results are substantively unchanged if the full sample is analyzed.

Participants considered ordering a mystery (a box of unknown flavor cookies, three pairs of unknown winter socks, or a mask in an unknown color) or a certain (a box of chocolate chip cookies, a pair of blue, red, and grey winter socks, or a black mask) product online. We then measured the desire to talk about this purchase with close others, using a three-item scale adapted from Weingarten & Berger (2017; e.g., “How likely are you to mention to your friends and family that you are about to get this [product]?”, $1 = \text{not at all likely}, 9 = \text{extremely likely}; \alpha = .85$; see MDA for items). We also captured perceived product uncertainty (uncertain, unknown, $1 = \text{not at all}, 7 = \text{extremely}; r = .84, p < .001$) and perceived product hedonicity (“To
what extent would you say that this [product] is more utilitarian or more hedonic?”, 1 = totally utilitarian, 7 = totally hedonic).

**Results**

The mystery offering was considered more uncertain across categories \((F(1, 593) = 443.26, p < .001, \eta_p^2 = .43; M_{\text{uncertain}} = 5.11, SD = 1.57; M_{\text{certain}} = 2.49, SD = 1.53)\) and within each category \((ps < .001; \text{see Table 3 for means})\). The cookies were perceived as more hedonic \((M = 6.18, SD = 1.02)\) than the socks \((M = 4.11, SD = 2.12)\) or mask \((M = 2.61, SD = 1.67; F(2, 593) = 355.03, p < .001, \eta_p^2 = .55; \text{all contrasts are significant, } ps < .001; \text{see MDA for additional analysis})\).

Importantly, participants reported a greater desire to talk about the product when it was uncertain \((M = 4.87, SD = 2.06)\) than certain \((M = 3.87, SD = 2.06; F(1, 593) = 34.69, p < .001, \eta_p^2 = .06)\) across categories and within each category \((p's < .002; \text{see Table 3})\). There were no other differences \((F_{\text{category}} < 1; F_{\text{interaction}} < 1)\).

**Table 3: Cell means (standard deviations) by certainty and category conditions in Study 1**

<table>
<thead>
<tr>
<th>Perceived Uncertainty</th>
<th>Hedonicity</th>
<th>Desire to Talk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certain product</td>
<td>Mystery product</td>
<td>Certain product</td>
</tr>
<tr>
<td>Mask</td>
<td>2.57 (1.60)</td>
<td>5.19 (1.57)***</td>
</tr>
<tr>
<td>Cookies</td>
<td>2.27 (1.54)</td>
<td>5.55 (1.28)***</td>
</tr>
<tr>
<td>Socks</td>
<td>2.64 (1.42)</td>
<td>4.59 (1.67)***</td>
</tr>
</tbody>
</table>

**Notes**: *** \(p \leq .001\).

**Discussion**

Across three categories of varying hedonicity, this study demonstrated that consumers report a greater desire to discuss mystery (vs. certain) products with close others. We replicated this effect with a different outcome measure in Supplemental study A (see MDA), in which participants chose the topic to discuss in an online chat. Everyone chose between talking about
(a) a certain [mystery] recipe they were to receive as part of the study or about (b) today’s weather (with type of recipe manipulated between subjects). More participants opted to talk about the mystery offering (vs. the weather; 83%) than the certain offering (vs. the weather; 71%; $\chi^2 = 5.66, p = .02$), providing further support for the proposed effect and extending it to conversations with distant others.

One may also wonder whether the difference between the mystery and certain products is driven by novelty (rather than by uncertainty), consistent with prior findings that people are more likely to talk about original products (Moldovan et al., 2011). We address this question in Supplemental study B (see MDA), in which we show that the mystery product generates a greater desire for conversation (and joint speculation) than a certain novel product. This underscores the unique role of product uncertainty, above and beyond what has been shown in prior work. In Study 2, we examine the proposed driver of this effect – joint speculation – by capturing the conversation between a purchaser and a respondent.

**STUDY 2: JOINT SPECULATION**

**Method**

This study (pre-registration: https://aspredicted.org/BKW_Z9F) had two parts (for a similar procedure, see McGraw et al., 2015). First, 299 Prolific participants (the purchasers) considered buying a box of surprise (vs. chocolate chip) cookies online. Next, they wrote a social media post about their purchase while waiting for it to arrive. To incentivize meaningful and realistic posts, participants were told their post would be shared with others who would respond to it, and we offered bonus payment for the three most engaging entries. We excluded participants who failed the manipulation check ($n = 3$) or did not provide meaningful text ($n = 9$; e.g., blank responses).
Second, a different sample of Prolific participants (the respondents) each viewed one randomly presented comment and responded to it. Again, participants learned about the bonus payment and were excluded if they provided irrelevant text \((n = 3)\). In total, we obtained 282 conversations consisting of a main post and a response (two posts did not receive a response due to technical issues).

All 564 participants rated the uncertainty of the product (same items used in Study 1; \(rs > .84, ps < .001\)) and their use of social media \((1 = \text{do not use at all}, 7 = \text{use more than once a day})\). The latter measure did not show any differences \((ps > .16)\), so we do not discuss it further.

Two independent coders, blind to hypotheses and condition, read each conversation and indicated whether it included any speculation \((1 = \text{speculation present}, 0 = \text{otherwise})\). The coders were specifically instructed that a conversation will involve joint speculation when either party is making guesses about different aspects of the product - its flavor, taste, quality, etc. – or inviting others to do so (see coding procedure details in MDA). The coders agreed on 82\% of conversations \((k = .61)\) and resolved disagreements via discussion (see Table 4 for examples).

### Table 4: Examples of verbatim conversations in Study 2

<table>
<thead>
<tr>
<th>Condition</th>
<th>Conversation</th>
<th>Speculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mystery product</td>
<td><em>Post:</em> I am so excited to receive my box of surprise cookies! I wonder which flavor I will get, what do you guys think? <em>Response:</em> I think your going to get chocolate chip. Maybe you'll get something new and different. Like rainbow flavor.</td>
<td>Yes</td>
</tr>
<tr>
<td>Certain product</td>
<td><em>Post:</em> I ordered chocolate chips cookies online instead of buying from a store. Will they taste good? Let’s see. <em>Response:</em> Ooh where did you buy them from? Are they the same ones you usually buy at the store? You'll have to let me know how they are so I can see about buying some myself if they're good!</td>
<td>Yes</td>
</tr>
<tr>
<td>Mystery product</td>
<td><em>Post:</em> Just ordered my first ever box of SURPRISE cookies. So I have no idea of cookie flavor, type, shape, anything until they arrive. Can't wait to see what they send me!</td>
<td>No</td>
</tr>
</tbody>
</table>
**Results**

A repeated measures ANOVA with the uncertainty rating provided by purchasers and respondents as the repeated factor and certainty condition as the between-subjects factor indicated only a main effect of certainty condition ($F(1, 280) = 231.12, p < .001, \eta_p^2 = .45$): The mystery cookie box was rated as more uncertain ($M = 5.61, SE = .11$) than the chocolate chip box ($M = 3.35, SD = .11$; all other $ps > .20$).

Importantly, conversations in the mystery condition were more likely to involve joint speculation (59%) than those in the certainty condition (21%; $\chi^2 (n = 282) = 41.48, p < .001$). Further text analysis indicated that in both conditions, conversations were largely positive (see MDA for detailed results).

**Discussion**

This study offered initial support for the proposed process of joint speculation by showing that conversations about a mystery (vs. certain) product are more likely to involve speculative statements. The next study provides further support for this theory, using a measured mediation design. Moreover, we test several alternative mechanisms (arousal, information acquisition, savoring, self-presentation motivation, and experiential nature of the product) suggested by prior work.

**STUDY 3: MEASURED MEDIATION**
Method

We obtained data from 252 MTurk participants (https://aspredicted.org/F4C_KQZ) and retained 231 who passed the attention checks. Participants considered placing an online order at Starbucks. Those in the certainty condition ordered a cappuccino, while those in the mystery condition ordered a surprise coffee drink that would be revealed at pickup. We then captured participants’ desire to talk about the purchase using the scale from Study 1 (α = .82), followed by the extent to which participants anticipated the conversation will involve joint speculation (e.g., “A conversation about this purchase will involve an exchange of ideas about the possible outcomes.”; α = .94; see Table 5 for item details; see Supplemental study B in MDA for a revised scale), arousal (e.g., unaroused [1]/ aroused [7]; α = .85), and information acquisition (e.g., “How likely is it that talking about this purchase with others will help you learn more about the actual product”; r = .92, p < .001). The latter three scales were displayed in random order, loaded on independent factors, and had low interclass correlations (see MDA for factor analysis and discriminant validity). We also captured savoring (e.g., “I feel joy at the thought of receiving this product”; r = .89, p < .001), self-presentation (e.g., “Purchasing this product reflects positively on me”; r = .81, p < .001), and perceived experiential nature of the product (“To what extent would you say that this coffee drink is more like a material [1] or more like an experiential [7] good?”) in random order, followed by the uncertainty manipulation check (r = .89, p < .001).

Table 5: Scale item details in Study 4

<table>
<thead>
<tr>
<th>Scale</th>
<th>Items</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint speculation</td>
<td>• A conversation about this purchase will involve an exchange of ideas about the possible outcomes.</td>
<td>Original</td>
</tr>
<tr>
<td></td>
<td>• Talking about this purchase with others will involve coming up with different hypotheses about the outcome.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• This product allows for speculation with others. (1 - Strongly disagree, 7 - Strongly agree)</td>
<td></td>
</tr>
</tbody>
</table>
Arousal
- very passive [1] --- very active [7]
- very mellow [1] --- very fired up [7]  

Information acquisition
How likely is it that talking about this purchase with others...:
- ...will help you learn more about the actual product?
- ... will provide you with useful information about the product?
(1 - Not at all likely, 7 - Extremely likely)  

Savoring
- I feel joy at the thought of receiving this product
- I am aware that I feel good when thinking about this product
(1 - Strongly disagree, 7 - Strongly agree)  

Self-presentation
- Purchasing this product reflects positively on me
- This purchase will create a positive impression about me on others
(1 - Strongly disagree, 7 - Strongly agree)  

Results

The certainty manipulation was successful ($M_{uncertainty \ condition} = 5.60, SD = 1.75$; $M_{certainty \ condition} = 2.34, SD = 1.51$; $F(1, 229) = 226.51, p < .001, \eta^2_p = .50$).

Participants indicated a greater desire to discuss the mystery ($M = 3.83, SD = 2.09$) than the certain product ($M = 2.76, SD = 1.91$; $F(1, 229) = 16.35, p < .001, \eta^2_p = .07$). Joint speculation ($F(1, 229) = 133.42, p < .001, \eta^2_p = .37$) and arousal ($F(1, 229) = 6.09, p = .01, \eta^2_p = .03$) were higher in the uncertainty condition (see means in Table 6), while there were no differences in information acquisition ($F(1, 229) = 1.00, p = .32, \eta^2_p = .004$). When all three processes were included in a mediation analysis (model 4; Hayes, 2022), both joint speculation ($b = .94, SE = .18, 95\% \ CI: [.59, 1.32]$) and arousal ($b = .20, SE = .09, 95\% \ CI: [.04, .38]$) mediated the effect of certainty condition on desire to talk about the product (total indirect effect: $b = 1.21, SE = .23, 95\% \ CI: [.78, 1.67]$). Pairwise comparisons suggested that the indirect effect of joint speculation was stronger ($b = .74, SE = .08, 95\% \ CI: [.35, 1.16]$; see Chapter 5 in Hayes,
The indirect effect of information acquisition \((b = .08, SE = .08, 95\% \text{ CI: } [-.08, .26])\) and the direct effect of certainty condition \((b = -.15, SE = .26, t = -.58, p = .56)\) were not significant. None of the remaining measures were significant mediators if added to the model above. In fact, there were no differences in self-presentation between conditions \((F < 1)\), and participants reported greater savoring of the certain than the mystery product \((F(1, 229) = 5.11, p = .02, \eta^2_p = .02)\).

### Table 6: Cell means (standard deviations) for mediators and other measures in Study 4

<table>
<thead>
<tr>
<th></th>
<th>Certain product</th>
<th>Mystery product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint speculation</td>
<td>2.90 (1.57)</td>
<td>5.19 (1.44)**</td>
</tr>
<tr>
<td>Arousal</td>
<td>3.20 (1.48)</td>
<td>3.67 (1.38)**</td>
</tr>
<tr>
<td>Information acquisition</td>
<td>2.87 (1.69)</td>
<td>3.10 (1.75)</td>
</tr>
<tr>
<td>Savoring</td>
<td>4.75 (1.54)</td>
<td>4.28 (1.63)**</td>
</tr>
<tr>
<td>Self-presentation</td>
<td>3.45 (1.42)</td>
<td>3.26 (1.49)</td>
</tr>
<tr>
<td>Experiential nature</td>
<td>4.27 (2.03)</td>
<td>5.03 (1.82)**</td>
</tr>
</tbody>
</table>

*Notes: ** \(p < .05\), *** \(p < .001\).*

### Discussion

This study provided direct evidence that joint speculation drives conversation intentions for mystery products. Arousal emerged as a secondary, albeit weaker mediator, consistent with the research demonstrating that (1) uncertainty enhances affect intensity (Bar-Anan et al., 2009) and physiological arousal (Ramsøy et al., 2012) and (2) arousal increases sharing (Weingarten and Berger 2017; Teeny et al. 2020; Berger 2011). None of the other measures explained the observed effect.

Our theory suggests that mystery products lead to joint speculation as long as the conversation parties are open to and interested in exchanging conjectural thoughts about the product. We thus predict that the effect will be attenuated for individuals who are closed-minded,
as indicated by higher levels of dogmatism. This is because highly dogmatic people are generally unwilling to consider other perspectives due to their cognitive rigidity (Rokeach, 1960) and might thus be less interested in the bi-directional exchange of ideas involved in joint speculation. We test this hypothesis next.

STUDY 4: BOUNDARY EFFECT

Method

Out of 444 MTurk participants who completed the study, 377 answered the attention checks correctly and were retained for analysis (https://aspredicted.org/887_71C). Participants first completed the dogmatism scale (e.g., “I am set in my ways”, 1 = strongly disagree to 5 = strongly agree; Shearman & Levine, 2006; see MDA for items) and then considered the cookie purchase from Study 1. We captured the desire to talk about the purchase, joint speculation, and product uncertainty with the items from Study 3.

Results

The uncertainty manipulation was successful ($M_{\text{uncertain}} = 5.52, SD = 1.50; M_{\text{certain}} = 2.34, SD = 1.71; F(1, 375) = 367.71, p < .001, \eta_p^2 = .50$) and there were no differences in dogmatism ($M = 2.19, SD = .65, min = 1.00, max = 4.36$) between conditions ($F < 1$).

Product certainty and dogmatism jointly influenced the desire for conversation (see Table 7), such that the mystery (vs. certain) product motivated greater conversation intentions only for those with low dogmatism (Johnson-Neyman point at 2.60 with 69% of the sample scoring lower; see Figure 2). The mystery product also generated greater joint speculation when dogmatism was low (Johnson-Neyman point at 2.89 with 80.4% of the sample scoring lower). Interestingly, the effect reversed for those scoring high in dogmatism (Johnson-Neyman point at
3.50; see Figure 2). As only six participants fall in the latter group, this reversal should be interpreted with caution.

**Table 7: Linear regression coefficients in Study 4**

<table>
<thead>
<tr>
<th></th>
<th>Outcome: Desire to talk about the product</th>
<th>Outcome: Joint speculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.76 (0.61)</td>
<td>0.36 (0.41)</td>
</tr>
<tr>
<td>Certainty condition</td>
<td>2.60 (0.82)**</td>
<td>5.83 (0.55)***</td>
</tr>
<tr>
<td>(1 = mystery product, 0 = certain product)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dogmatism score</td>
<td>1.62 (0.27)**</td>
<td>1.42 (0.18)***</td>
</tr>
<tr>
<td>Condition by dogmatism</td>
<td>-0.79 (0.36)*</td>
<td>-1.87 (0.24)***</td>
</tr>
</tbody>
</table>

*Notes: Standard errors are presented in parentheses. *p < .05, **p < .01, ***p < .001.*

**Figure 2: Results from Study 4 on conversation intentions (left) and joint speculation (right). Shaded areas depict the range of significant differences between the two conditions.**

Finally, we found evidence for moderated mediation (b = 1.49, SE = .25, 95% CI:[1.04, 2.03]; model 8; Hayes, 2022). Joint speculation mediated the effect of product certainty on conversation intentions when dogmatism was low (dogmatism score = 2, b = -1.67, SE = .19, 95% CI:[-2.07, -1.33]), but not moderately high (dogmatism score = 3, b = -1.19, SE = .21, 95% CI:[-.59, .22]). Further, the moderated mediation was significant for highly dogmatic participants (dogmatism score = 4, b = 1.30, SE = .42, 95% CI:[.52, 2.16]; see MDA for detailed results); again, due to sample size concerns for this group, we refrain from further interpretation.
Discussion
Offering support for the proposed process via moderated mediation, this study demonstrated that mystery products motivate conversation through joint speculation only for consumers low in closed-mindedness; those high in closed-mindedness did not see the uncertainty as an opportunity to speculate and were not more likely to talk about the mystery than the certain product. For a different boundary effect – the respondent’s level of optimism – see Supplemental study C in MDA.

GENERAL DISCUSSION
This paper proposed and tested a novel theory regarding the effect of uncertainty on communication with others in the context of mystery products: we demonstrated that mystery (vs. equivalent certain) items enhance consumers’ desire for conversation by motivating joint speculation. Unlike prior work which has argued that uncertainty is motivating only when resolved quickly (Loewenstein, 1994; Shen et al., 2019), our findings indicate that, at least for everyday, low-stake products, keeping some aspects of the offering uncertain may encourage consumers to talk about it. This research also shows that consumers may discuss products during the pre-consumption stage – before they have obtained and experienced the item – as long as they want (and are able) to speculate about the item’s uncertain aspects with others. This finding is timely as consumers are increasingly shifting their purchases online, experiencing time gaps between order and consumption. Moreover, our work is the first to conceptualize and investigate joint speculation – a process that, we believe, is relevant in many other marketplace contexts involving uncertainty, such as experiences, upcoming product releases (e.g., a forthcoming book), planned but not yet realized consumption (e.g., recipes one plans to cook), individuals or brands with perceived potential, or ambivalent past or on-going events.
To practitioners, our results suggest that firms selling run-of-the-mill products that do not naturally receive much WOM (Toubia et al., 2011) can use mystery to motivate conversation. As pre-consumption WOM increases sales (Gelper et al., 2018) and as consumers are often willing to pay a premium for conversation-worthy products (Wiener et al., 2022), motivating joint speculation can boost the firm’s bottom line. As dogmatism is related to conservatism and religiosity (Jost et al. 2003), Study 4 further suggests that conservative brands (e.g., Chick-fil-A, Hobby Lobby) may not benefit from the increase of conversation afforded by mystery offerings.

While this research offers initial support for the proposed theory, many questions merit further examination (see Table 8). First, future work should examine empirically the scope of the phenomenon using behavioral data. We look at joint speculation about mystery products, but there are many other topics on which speculation is possible. Supplemental study B indicates that uncertainty, rather than novelty, motivates joint speculation and conversation intentions. Yet, many innovative products are also uncertain when first introduced on the market, suggesting that consumers may also speculate about novel offerings. On a different note, might consumers be motivated to jointly speculate about undesirable uncertain events (such as economic downturns or personal mishaps)? Our theory suggests they would as long as they perceive some utility from speculation (such as managing tense arousal). Future research can test the applicability of this theory across different contexts.

Second, we suggest that consumers would engage in joint speculation only if doing so is expected to bring emotional or social benefits but we do not empirically test the types of benefits that may arise. Future research can examine more deeply why uncertainty drives joint speculation. In Study 3, arousal emerged as a secondary mediator; yet, it may also be a driver of
joint speculation: consumers may resort to speculation to make sense of arousing, uncertain stimuli, thereby actively managing the experienced affect.

Third, we expect there are other moderators of the observed effects, besides the dispositional scale of dogmatism examined in Study 4. For example, we believe that the effect of uncertainty on joint speculation and conversation is not linear, as too much uncertainty – when nothing about the outcome is known or suspected – provides little fodder for conversation. Similarly, uncertainty about conversation-poor attributes such as price or outcomes with limited alternatives may discourage joint speculation. There may also be audience and channel moderators: consumers may be more likely to speculate about a negative uncertain event with close (vs. distant) others due to impression management concerns. Examining these factors can also help us understand the role joint speculation plays in relation to conversation drivers and moderators established in the literature.

Finally, research can examine the consequences of joint speculation. Conversations involving speculation with others might be more engaging than those involving information acquisition because, unlike other forms of WOM (e.g., reviews), joint speculation allows all parties to make equal contributions to the discussion as everyone has limited knowledge of the outcome. This unique feature of joint speculation may enhance the respondent’s attachment to the outcome or affect their brand attitudes; it may also increase feelings of control or decrease subjective feelings of uncertainty. Further, speculative conversations can influence the relationship between the partners: for instance, speculating about uncertain (vs. certain) events might increase relational closeness. Future research should also examine the content, tone, volume, and frequency of speculative conversations about mystery products in the short and long term. Given prior findings that uncertain events generate long-lasting positive affect due to their
accessibility in the consumer’s mind (Lee and Qiu, 2009; Wilson et al., 2005), we expect consumers might engage in speculative conversations about uncertain (vs. certain) products over a longer period of time.

In sum, we believe the ideas introduced here have the potential to generate new insights into when, why, and how consumers discuss their uncertain purchases and experiences.

**Table 8: Future research directions**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Research questions</th>
<th>Theoretical &amp; practical importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope of the proposed theory</td>
<td>• Will consumers speculate with others about negative uncertain events?</td>
<td>• Identify the range of contexts to which this framework applies</td>
</tr>
<tr>
<td></td>
<td>• Is joint speculation observed in other contexts involving uncertainty such as innovative products, individuals or brands with perceived potential, ambivalent events, upcoming experiences or events?</td>
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<td></td>
<td>• Do the words used to advertise a mystery offering (e.g., “surprise” vs. unknown”) matter?</td>
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<tr>
<td>Drivers of joint speculation</td>
<td>• Why do respondents join in speculating? Is speculation more engaging or enjoyable than other forms of WOM?</td>
<td>• Advance our understanding of bi-directional communication</td>
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<tr>
<td></td>
<td>• What are the social and emotional benefits of speculating with others about something uncertain?</td>
<td>• Suggest how brands can use joint speculation to drive communication</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Understand the role of joint speculation in relation to other WOM motives</td>
</tr>
<tr>
<td>Moderators of joint speculation</td>
<td>• What is the optimum level of uncertainty needed to stimulate joint speculation?</td>
<td>• Identify the contexts in which joint speculation may be more (vs. less) likely</td>
</tr>
<tr>
<td></td>
<td>• What types of product attributes are most likely to generate joint speculation?</td>
<td>• Guide brands in designing mystery offerings and appeals that stimulate joint speculation</td>
</tr>
<tr>
<td></td>
<td>• What dispositional characteristics (other than dogmatism) enhance consumers’ desire to engage in joint speculation?</td>
<td></td>
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<tr>
<td></td>
<td>• Does the size of the group (dyad vs. small vs. large group) or setting (online vs. offline) matter?</td>
<td></td>
</tr>
<tr>
<td>Consequences of joint speculation</td>
<td>What types of uncertain events are consumers more likely to speculate about with distant (vs. close) others?</td>
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<tr>
<td></td>
<td>Are there differences in the volume, emotional tone, and frequency of speculative conversations for uncertain (vs. certain) events in the short and long term?</td>
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<td></td>
<td>Will joint speculation affect the purchaser’s satisfaction with the revealed product?</td>
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<td></td>
<td>Does speculation affect one’s sense of control over the uncertain event and/or one’s subjective feeling of uncertainty?</td>
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<td></td>
<td>Does speculating with others increase relational closeness?</td>
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<td></td>
<td>Are the respondents more likely to purchase mystery products after speculating about them with a purchaser?</td>
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<td></td>
<td>Will consumers have enhanced conversation intentions even post-resolution?</td>
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<td></td>
<td>Identify the direct and indirect benefits of joint speculation for firms and consumers</td>
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<td></td>
<td>Advance our understanding of consumers’ response to mystery offerings pre- and post-resolution</td>
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- Additional results on hedonicity perceptions

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- Attention check measures
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<td>Discussion</td>
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<td>Measures</td>
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STUDY 1: THE EFFECT

Stimuli

CERTAIN [MYSTERY] CONDITION:

[Cookies category] You feel like buying some COOKIES. While grocery shopping at your favorite online store, you notice the chocolate chip cookies that you often buy [a pack of SURPRISE cookies]. The product has excellent reviews (4.8 out of 5 stars with 7,259 ratings).

You order a pack of these EXACT chocolate chip [SURPRISE] cookies. The store will deliver your online order within a couple of days.

[Socks category] You are in need of a few pairs of WINTER SOCKS. After some online browsing and reading multiple reviews, you identified the best brand that fits your needs. The product consists of 3 pairs of blue, red, and grey winter socks with snowflake pattern. [The brand offers a SURPRISE box of three pairs of socks - the exact set of winter socks will be a surprise!] The product has excellent reviews (4.8 out of 5 stars with 7,259 ratings) and the comments indicate that everything about the socks is high quality.

You decide to order this EXACT [SURPRISE] set of winter socks. The package will arrive by mid next week.

[Mask category] You are in need of a new MASK. You would like to purchase a good quality mask that you can use for a longer time. After doing some research online and reading several posts about the best masks to buy at the moment, you decide to purchase a mask from Banana Republic, which also offers a great price for the product at this time.

As you browse, you notice an adjustable multi-layer mask in BLACK - very similar to the one you already have and like. [As you browse, you notice a SURPRISE adjustable mask}
- the exact mask will be a surprise! You will find out what you'll get only once you receive the package.] The product has excellent reviews (4.8 out of 5 stars with 7,259 reviews) and the comments indicate that everything about this mask is outstanding. You decide to go with this black mask.

You order this EXACT [SURPRISE] black adjustable mask. The package will arrive by mid next week.

Measures

Desire to talk about the product items (adapted from Weingarten & Berger, 2017)
(1 - Not at all likely, 9 - Extremely likely)

- While waiting to receive this purchase, how likely are you to talk about it with others?
- How likely are you to mention to your friends and family that you are about to get this [product]?
- How likely are you to post about getting this [product] on social media (before you receive it)?

Hedonicity manipulation check (Kivetz & Zheng, 2017)
To what extent would you say that this [product] is more UTILITARIAN or more HEDONIC?

Utilitarian products serve our fundamental needs and may often be considered practical or necessary. Hedonic products are for fun, excitement, and sensual pleasure and may often be considered frivolous or luxurious.

(1 = Totally Utilitarian, 7 = Totally Hedonic)

Uncertainty manipulation check and other measures:
Please rate the [product] on the following items:
(1 - Not at all, 7 - Extremely)

- Unknown (manipulation check)
- Uncertain (manipulation check)
- Interesting
• Unusual
• Pricy
• Expensive

Attention check (adapted from Oppenheimer et al., 2009):
In this study, we asked you to imagine that you've purchased a product. What was the product category? (Only one answer is correct!)
• Rain boots
• Computer
• Socks
• Cookies
• Refrigerator
• Mask
• Headphones
• Microwave oven

Demographics:
What is your gender?
• Female
• Male
• Non-binary/Other [text box provided]

What is your age? [text box provided]

Exploratory measures:

To what extent would you say that this [product] is more like a MATERIAL or more like an EXPERIENTIAL good? Material goods are those purchased with the primary intention of acquiring something tangible: a tangible object that is obtained and kept in one’s possession. Experiential goods are those purchased with the primary intention of acquiring a life experience: an event or an experience that one personally encounters or lives through. (1 = Definitely Material, 7 = Definitely Experiential)

Rate your agreement with the following items regarding your purchase of the [product] (1 – Strongly disagree, 7 - Strongly disagree)
• I am confident that I made the right purchase decision.
• I feel proud of making this purchase.
• I think this was a savvy purchase.

How much do you agree with the following statements regarding your purchase of the [product]: (1 – Strongly disagree, 7 - Strongly disagree)
• Talking about this purchase with others will make me even more excited about it.
• Talking about this product with others will help me make better sense of it.
• I am very curious about this product.
• My friends would respond enthusiastically about this purchase.
• My friends would ask a lot of questions about this purchase.

How likely are you to purchase this [product] in real life? (1 - Not at all, 9 - Extremely)
How much would you enjoy having this [product]? (1 - Not at all, 9 - Extremely)

Cell sizes (cleaned data)

<table>
<thead>
<tr>
<th></th>
<th>Certain product</th>
<th>Mystery product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mask</td>
<td>102</td>
<td>97</td>
</tr>
<tr>
<td>Cookies</td>
<td>101</td>
<td>99</td>
</tr>
<tr>
<td>Socks</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Additional results on hedonicity perceptions

Besides the main effect of product category reported in the main paper, there was also a main effect of the certainty condition: the mystery product was rated as more hedonic ($M = 4.44$, $SD = 1.92$) than the certain product ($M = 3.79$, $SD = 2.25$; $F(1, 593) = 31.62$, $p < .001$, $\eta_p^2 = .05$).

Further, this effect was qualified by a significant interaction such that the difference between the mystery and certain offering on perceived hedonicity was significant only in the mask category ($F_{interaction}(2, 593) = 30.52$, $p < .001$, $\eta_p^2 = .09$; mask: $p < .001$; cookies: $p = .77$; socks: $p = .68$).

Note that controlling for hedonicity in the main analysis does not change the results.

STUDY 2: JOINT SPECULATION

Stimuli

PART 1 (purchasers) - CERTAIN [MYSTERY] CONDITION

Please read carefully and consider the following situation:

You feel like buying some COOKIES. While grocery shopping at your favorite online store, you notice a box of the chocolate chip cookies that you are very familiar with. [a box of SURPRISE COOKIES - the exact cookies will be a surprise and you will find out what they are only once you receive the package!]
The product has excellent reviews (4.8 out of 5 stars with 259 ratings) and the comments indicate that everything about these chocolate chip cookies is outstanding.

You order a box of these CHOCOLATE CHIP COOKIES. [You order a box of these SURPRISE COOKIES.] The purchase will arrive within a couple of days.

---

While waiting for the order, you decide to post about this purchase - the cookies - on your social media.

In the box below write the message that you would post. You can write as many sentences as you feel like, but you need to write a minimum of two sentences to complete this task.

REMINDER: You ordered the cookies but they haven't arrived yet. Thus, you don't have them in front of you. Make sure that your post is consistent with the situation.

IMPORTANT: Your post will be shared with other participants who will respond to it, just like in a typical social media context. The top 3 posts that receive the highest engagement will receive a $.50 bonus! (The bonus will be sent by Friday, 12/2.)

Thus, you should try to make your post really engaging and spark a conversation!

[Text box provided]

**PART 2 (respondents)**

In a previous study, participants considered ordering a box of CHOCOLATE CHIP COOKIES that they are very familiar with! [SURPRISE COOKIES – the exact cookies are
a surprise! The participant will find out what the cookies are only once they receive the package!

The product has excellent reviews (4.8 out of 5 stars with 259 ratings) and the comments indicate that everything about these cookies is outstanding.

The participant has already ordered a box of these CHOCOLATE CHIP COOKIES [SURPRISE COOKIES] and the purchase will arrive within a couple of days.

While waiting to receive the item, they decided to post about this purchase on their social media. Below, you will see their post in blue. Please read it carefully!

[Example mystery condition post:] "I'm so excited to be able to try these SURPRISE cookies that everyone has been raving about. I'm hoping they are as delicious as the reviews say they are. Hopefully, they will arrive today and I will send a follow-up post with an update."

[Example certainty condition post:] "I can't wait to get these chocolate chip cookies! I've always loved these chocolate chip cookies before, just thinking of them is getting my mouth watering!"

Imagine that you decide to respond to this post on social media. What would you say?

In the box below write the response that you would post. You can write as many sentences as you feel like, but you need to write a minimum of two sentences to complete this task.

REMINDER: The participant who posted the above message has ordered the product but has not received it yet. Make sure that your post is consistent with the situation.
IMPORTANT: Just like in a typical social media context, try to make your post engaging so the conversation keeps on going. The top 3 most engaging posts will receive a $.50 bonus!

(The bonus will be sent by Friday, 12/2.)

Thus, you should try to make your post really engaging and keep the conversation going!

[Text box provided]

**Speculation coding instructions and procedure**

Research assistants who were blind to the hypotheses of the study and to the condition of each participant read each of the 282 conversation entries, consisting of a main post and a response.

The coding instructions provided the definition of speculation: Joint speculation involves the sharing of conjectural* ideas or opinions about something that is uncertain to both parties in the conversation. *Conjecture, in turn, is defined as an opinion that is based on insufficient information; a proposition that has not been proved or disproved yet.

The coders were also told that, in simple words, a conversation will involve joint speculation when either party is making guesses about different aspects of the product - its flavor, taste, shape, quality (good or bad), when it will arrive, etc. - or inviting others to do so. Thus, speculation may involve statements such as “I wonder whether these chocolate chip cookies will be crispy or chewy”, “I hope these surprise cookies don’t have nuts”, or “What flavor cookies would you hope to get if you were in my shoes?”. Conversely, speculation is NOT present when one is trying to gather information from others about their past experiences (e.g., “Have you had this brand before?”), general preferences about other products (e.g., “What is your favorite candy?”), or when one makes statements about a known fact/opinion about the product (e.g., “I’m excited for my cookies”) or about what is unknown (e.g., “I don’t have any idea what I am getting”).

The research assistants were asked to consider the conversation as a whole and indicate whether it involved any speculation (coded as 1) or not (coded as 0). Each research assistant worked independently, and disagreements were resolved through discussion.

**Attention check measures**

[Attention check 1]:

Before you begin the survey, please answer the question below.
Where do you get your news from? While the question above asks about your preferred news outlet, we are actually interested in whether you pay attention to the instructions. Thus, regardless of which news outlets you prefer, please answer "XYZ Station" below. This is a reading check.

So, where do you get your news from?

(Only participants who provided the correct answer could continue with the survey).

[Attention check 2]:

Which best describes the cookies you wrote about?

- Chocolate chip cookies
- Surprise cookies

**Cell sizes (cleaned data)**

Each condition (mystery vs. certain product) had 141 participants.

**Additional results on emotional tone**

We examined the emotional tone of the generated text using Linguistic Inquiry and Word Count (LIWC; Pennebaker et al., 2001). The algorithm calculates an index of emotional tone (range 0-100) with values above (below) 50 indicating positive (negative) emotional tone. The results indicated that the conversations in the mystery product condition were more positive (M = 94.37, SE = 12.86) than those in the certain product condition (M = 88.99, SE = 19.47; F(1, 280) = 7.50, p = .01, $\eta^2_p = .03$), although the tone was overall positive in both conditions ($p$’s <.001). This is consistent with prior work suggesting that consumers are generally optimistic about mystery offerings (e.g., Buechel & Li 2022; Goldsmith & Amir, 2010; Laran & Tsiros 2013).

**STUDY 3: MEASURED MEDIATION**
Imagine that you have decided to get a coffee drink. There's a Starbucks close by and you love the baristas at this location. So, you decide to stop by to grab a drink.

To save some time, you log in the app and order online. Once you open the app, you decide to get a STARBUCKS CAPPUCCINO. [Once you open the app, you find out that the shop has a STARBUCKS SURPRISE COFFEE DRINK option - the type of drink is a surprise. You will not know what the drink will be, until you receive it at the counter. You decide to get it.]

You order the cappuccino [this surprise coffee drink] but have to wait before it is ready.

**Additional measures and attention checks**

**[Coffee consumption]:**
In general, do you consume coffee drinks? Yes/No

[Attention check 1]:
Before you begin the survey, please answer the question below.

Where do you get your news from? While the question above asks about your preferred news outlet, we are actually interested in whether you pay attention to the instructions. Thus, regardless of which news outlets you prefer, please answer "Newsletter" below. This is a reading check.

So, where do you get your news from?

(Only participants who provided the correct answer could continue with the survey).

[Attention check 2]:
In this study, we asked you to imagine that you've purchased a product. What was the product? (e.g., a computer, a house, a coffee drink, a chocolate, a doughnut, a dog, a notepad, etc.)
Please enter it below: [Text box provided]

(We excluded participants who indicated unrelated categories such as computer, doughnut, etc.).

**Cell sizes (cleaned data)**

There were 112 participants in the certain and 119 participants in the mystery product condition.

**Discriminant Validity Analysis**

To test whether the three potential mediator variables and the dependent variable demonstrate sufficient discriminant validity, we compared the Average Variance Extracted (AVE) between each pair of constructs to their corresponding squared correlations (Fornell & Larcker, 1981; Nenkov et al., 2008). The results, presented in Table A2, indicate satisfactory discriminant validity across all measures.

In addition, we conducted two additional analyses. First, we entered all multi-item measures (dependent variable, three mediators, and savoring and self-presentation scales) in a Confirmatory Factor Analysis with Varimax rotation with 6 factors. Each scale loaded on its own factor, indicating independence (see Table A3). Second, we examined the intercorrelations between the scales: joint speculation had low to medium inter-correlations with all other measures captured in the study, providing further evidence of the scale’s validity (see Table A4).

**Table A2: Test of Discriminant Validity in Study 3**

<table>
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<tr>
<th>Construct 1 (C1)</th>
<th>Construct 2 (C2)</th>
<th>AVE* of C1</th>
<th>AVE of C2</th>
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<td>.46</td>
<td>.52</td>
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</tr>
<tr>
<td>Desire to talk</td>
<td>Arousal</td>
<td>.57</td>
<td>.72</td>
<td>.65</td>
<td>.24</td>
</tr>
<tr>
<td>Desire to talk</td>
<td>Information acquisition</td>
<td>.57</td>
<td>.84</td>
<td>.71</td>
<td>.29</td>
</tr>
<tr>
<td>Joint speculation</td>
<td>Arousal</td>
<td>.46</td>
<td>.72</td>
<td>.59</td>
<td>.06</td>
</tr>
<tr>
<td>Joint speculation</td>
<td>Information acquisition</td>
<td>.46</td>
<td>.84</td>
<td>.65</td>
<td>.15</td>
</tr>
<tr>
<td>Arousal</td>
<td>Information acquisition</td>
<td>.72</td>
<td>.84</td>
<td>.78</td>
<td>.15</td>
</tr>
</tbody>
</table>

*Note: AVE - Average Variance Extracted. AVE was calculated using a 4-factor Confirmatory Factor Analysis with Varimax Rotation.*

**Table A3: Factor loadings from a Confirmatory Factor Analysis in Study 3**
While waiting to receive the drink, how likely are you to talk about it with others?  

How likely are you to mention to your friends and family that you are about to get this coffee drink?  

How likely are you to post about getting this drink on social media (before you receive the drink)?  

This product allows for speculation with others.  

Talking about this purchase with others will involve coming up with different hypotheses about the outcome.  

A conversation about this purchase will involve an exchange of ideas about the possible outcomes.  

Very Passive : Very Active  

Unaroused : Aroused  

Very Mellow : Very Fired Up  

... will provide you with useful information about the product?  

... will help you learn more about the actual product?  

I feel joy at the thought of receiving this product.  

I am aware that I feel good when thinking about this product.  

Purchasing this product reflects positively on me.  

This purchase will create a positive impression about me on others.

<table>
<thead>
<tr>
<th></th>
<th>DT</th>
<th>JS</th>
<th>A</th>
<th>IA</th>
<th>S</th>
<th>SP</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desire to talk (DT)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joint Speculation (JS)</td>
<td><strong>0.536</strong></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arousal (A)</td>
<td><strong>0.487</strong></td>
<td><strong>0.238</strong></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information acquisition (IA)</td>
<td><strong>0.543</strong></td>
<td><strong>0.395</strong></td>
<td><strong>0.381</strong></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Savoring (S)</td>
<td><strong>0.433</strong></td>
<td><strong>0.202</strong></td>
<td><strong>0.361</strong></td>
<td><strong>0.349</strong></td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-presentation (SP)</td>
<td><strong>0.515</strong></td>
<td><strong>0.304</strong></td>
<td><strong>0.395</strong></td>
<td><strong>0.441</strong></td>
<td><strong>0.606</strong></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Experiential nature (E)</td>
<td><strong>0.172</strong></td>
<td><strong>0.136</strong></td>
<td><strong>0.179</strong></td>
<td><strong>0.092</strong></td>
<td><strong>0.147</strong></td>
<td><strong>0.132</strong></td>
<td>1</td>
</tr>
</tbody>
</table>

Note: **p < .01, * p < .05.
STUDY 4: BOUNDARY EFFECT

Measures

*Dogmatism scale* (Shearman & Levine, 2006)

(1 = strongly disagree to 5 = strongly agree)

The statements below refer to your opinions and attitudes in general. Please read each item carefully and indicate the extent to which you agree with it.

- People who disagree with me are usually wrong.
- There is a single correct way to do most things.
- I am a “my way or the highway” type of person.
- People who are very different from us can be dangerous.
- I am “set in my ways.”
- Having multiple perspectives on an issue is usually desirable.*
- Diversity of opinion and background is valuable in any group or organization.*
- It is important to be open to different points of view.*
- There are often many different acceptable ways to solve a problem.*
- I consider myself to be very open-minded.*
- Different points of views should be encouraged.*
- Please select answer four (4) here to indicate paying attention.**

* Reverse-scored item. ** Attention check item.

Average dogmatism score descriptives: $M = 3.28$, $SD = .65$, $min = 2.09$, $max = 5.45$. A total of 40.1% of the cleaned sample scored at or below the scale midpoint. There was no difference in dogmatism between the two conditions ($M_{certain} = 3.27$, $SD = .63$; $M_{mystery} = 3.29$, $SD = .67$; $F < 1$).

Cell sizes (cleaned data)

There were 177 participants in the certain and 200 participants in the mystery product condition.
**Moderated mediation results**

*Table A5: Moderated mediation results in Study 4*

<table>
<thead>
<tr>
<th>Outcome: Joint Speculation</th>
<th>b</th>
<th>SE</th>
<th>t</th>
<th>p</th>
<th>LLCI</th>
<th>ULCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>6.19</td>
<td>0.37</td>
<td>16.89</td>
<td>0.00</td>
<td>5.47</td>
<td>6.91</td>
</tr>
<tr>
<td>Certainty condition (1 = certain, 0 = mystery condition)</td>
<td>-5.83</td>
<td>0.55</td>
<td>-10.61</td>
<td>0.00</td>
<td>-6.91</td>
<td>-4.75</td>
</tr>
<tr>
<td>Dogmatism scale</td>
<td>-0.45</td>
<td>0.16</td>
<td>-2.81</td>
<td>0.01</td>
<td>-0.76</td>
<td>-0.13</td>
</tr>
<tr>
<td>Certainty by dogmatism</td>
<td>1.87</td>
<td>0.24</td>
<td>7.76</td>
<td>0.00</td>
<td>1.39</td>
<td>2.34</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Outcome: Desire to talk about the product</th>
<th>b</th>
<th>SE</th>
<th>t</th>
<th>p</th>
<th>LLCI</th>
<th>ULCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-1.57</td>
<td>0.61</td>
<td>-2.58</td>
<td>0.01</td>
<td>-2.77</td>
<td>-0.38</td>
</tr>
<tr>
<td>Certainty condition</td>
<td>2.05</td>
<td>0.79</td>
<td>2.60</td>
<td>0.01</td>
<td>0.50</td>
<td>3.59</td>
</tr>
<tr>
<td>Joint Speculation</td>
<td>0.80</td>
<td>0.06</td>
<td>12.28</td>
<td>0.00</td>
<td>0.67</td>
<td>0.92</td>
</tr>
<tr>
<td>Dogmatism scale</td>
<td>1.19</td>
<td>0.20</td>
<td>5.90</td>
<td>0.00</td>
<td>0.79</td>
<td>1.58</td>
</tr>
<tr>
<td>Certainty by dogmatism</td>
<td>-0.70</td>
<td>0.32</td>
<td>-2.15</td>
<td>0.03</td>
<td>-1.34</td>
<td>-0.06</td>
</tr>
</tbody>
</table>

*Conditional direct effect of certainty condition on the desire to talk for:*

Dogmatism = 2 | 0.65 | 0.25| 2.66  | 0.01  | 0.17  | 1.14 |
Dogmatism = 3 | -0.04| 0.31| -0.14 | 0.89  | -0.66 | 0.57 |
Dogmatism = 4 | -0.74| 0.59| -1.26 | 0.21  | -1.90 | 0.42 |

*Conditional indirect effect of certainty condition on the desire to talk through joint speculation for:*

Dogmatism = 2 | -1.67| 0.19| -2.07 | -1.33 |
Dogmatism = 3 | -0.19| 0.21| -0.59 | 0.22 |
Dogmatism = 4 | 1.30 | 0.42| 0.52  | 2.16 |

*Index of moderated mediation:*

Dogmatism score | 1.49 | 0.25| 1.04  | 2.03 |

**SUPPLEMENTAL STUDY A: CONVERSATION CHOICE & SPECULATION**

In this study, we set to replicate the main effect of product certainty on the desire to communicate, using a different measure of conversation intentions: topic choice. As people will
select to talk about a topic they are interested in discussing with others, we hypothesize that consumers will be more likely to prefer to talk (and speculate) about a mystery (vs. certain) product when given the choice to talk about this product or another, commonly discussed topic such as the weather. This study also tests whether the proposed theory would replicate when consumers anticipate talking to distant others, as is the case with online chats amongst panel respondents who do not know each other.

**Method**

Of the 300 Prolific participants who completed this study (pre-registration: https://aspredicted.org/MM6_8M6), 284 passed the attention check and were included in the analysis.

Participants learned we were interested in their thoughts about seasonal drinks and that, at the end of the study, they would receive a recipe for spiced apple cider (certain product condition; all ingredients listed) or a surprise seasonal drink (mystery product condition; ingredients unknown until the study’s end). Next, participants learned that later they may talk to others in an online chat and could choose the conversation topic (for a similar procedure, see Blunden et al., 2019). Specifically, they could opt to talk about (1) the certain [mystery] drink or about (2) today’s weather (a common topic of conversation; Berger 2014). Participants learned there would be enough time to discuss only one of these two topics, so they should pick the one they prefer. This choice was our behavioral measure of WOM.

After indicating their choice, participants were asked to simulate the conversation and briefly describe what they would say. Next, they rated the uncertainty of the seasonal drink ($r =$
.93, \( p < .001 \), received the recipe, and indicated their likelihood to make this drink (1 = not at all, 7 = extremely) and whether they had seen this exact recipe online.

Following the procedure from Study 2, two independent coders marked whether those who opted to talk about the seasonal drink and provided non-blank responses \((n = 217)\) made any speculative statements about the drink and/or recipe (see Table A6 for example responses). The coders agreed in 82% of cases \((k = .61)\) and resolved disagreements through discussion.

**Table A6: Examples of participants’ responses in Supplemental Study A**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Verbatim text</th>
<th>Speculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mystery (opted to talk about the recipe)</td>
<td>I wonder what the seasonal drink will be? I would be it would be something flavored as it reminds you of the winter. It could be a cider flavor or maybe blueberry or cinnamon flavored?</td>
<td>Yes</td>
</tr>
<tr>
<td>Certain (opted to talk about the recipe)</td>
<td>Talk about my desire to enjoy the cider, whether the recipe would be doable, and when I would drink such a drink.</td>
<td>Yes</td>
</tr>
<tr>
<td>Mystery (opted to talk about the recipe)</td>
<td>I can’t wait to see what the suppose seasonal drink is. I enjoy changing things up as the seasons change every year.</td>
<td>No</td>
</tr>
<tr>
<td>Certain (opted to talk about the recipe)</td>
<td>I like spiced apple cider very much. I like it scent and taste. I wish it is available all year around, not only in the fall.</td>
<td>No</td>
</tr>
<tr>
<td>Certain (opted to talk about the weather)</td>
<td>I live by the mountains so it is constantly snowing here. How is the weather where you are at?</td>
<td>N/A</td>
</tr>
<tr>
<td>Mystery (opted to talk about the weather)</td>
<td>Where do you live? Is it cold and snowy or warm and comfortable? Where I live it is cold and unpleasant.</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Results**

The certainty manipulation was successful \((M_{\text{mystery}} = 5.70, SD = 1.59; M_{\text{certain}} = 2.94, SD = 1.78; F(1, 282) = 189.83, p < .001, \eta^2_p = .40)\).
More participants opted to talk about the mystery drink (vs. the weather; 83%) than the certain drink (vs. the weather; 71%; $\chi^2 (n = 284) = 5.66, p = .02$). Further, participants in the mystery drink condition were more likely to speculate (55%) than those getting the certain recipe (9%; $\chi^2 (n = 217) = 49.58, p < .001$).

We also examined the emotional tone of the generated text using LIWC. The emotional tone in both conditions was positive (significantly above the scale midpoint of 50; $t_{\text{certain}}(96) = 14.71, p < .001, d = 1.49$; $t_{\text{mystery}}(120) = 9.46, p < .001, d = .86$), although those in the certain condition generated more positive thoughts ($M = 86.16, SD = 24.21$) than those in the mystery condition ($M = 77.33, SD = 31.65$; $F(1, 215) = 5.12, p = .02, \eta^2_p = .02$). Across two studies (Study 2 and Supplemental Study A), we find that joint speculations about typical mystery offerings such as cookies and drinks are largely positively valenced; yet, whether the certain offering is discussed with similar or greater positivity seems to be influenced by the product category.

Finally, we examined familiarity with and likelihood to make the recipe. Of all 284 participants, 23 (8%) indicated having seen the recipe online, but there were no differences between conditions ($\chi^2 (n = 284) = .006, p = .94$). Excluding these participants from the sample does not change the results. There were also no differences in participants’ likelihood to make the recipe between conditions ($M_{\text{mystery}} = 3.71, SD = 1.98$; $M_{\text{certain}} = 3.59, SD = 1.98$; $F(1, 282) = .28, p = .60, \eta^2_p = .001$).
Discussion

Using a different measure of conversation intentions, this study showed that mystery (vs. certain) products are more likely to be chosen as topics of conversation and to motivate joint speculation.

Stimuli

CERTAIN [MYSTERY] CONDITION:

IMPORTANT: This is a not a typical study where you will only imagine a situation. This study may involve online communication with one or more other participants. Detailed information is provided later. Please read all instructions and questions carefully!

---

We are interested in learning more about consumers' thoughts about SEASONALDRINKS - specifically, beverages that people like to drink during late fall/winter.

There are a variety of seasonal drinks. In this study, we are interested in your thoughts about the classic SPICED APPLE CIDER. This drink is familiar and contains ONLY the following ingredients: apple cider, cinnamon, nutmeg, cloves, star anise, and orange slices.

[In this study, we are interested in your thoughts about a SURPRISE SEASONAL DRINK - the exact ingredients used in the drink will be unknown to you until the very end of this study!]

This seasonal drink is extremely tasty and satisfying!

At the end of the study, we will provide you with the exact recipe!

---

Later in this study or in a follow-up study, you may be grouped with one or more participants in an online chat. The chat will allow you to have a conversation for a few moments.

You are asked to choose the topic of conversation from the two options provided below.

Note that you will only have time to talk about one of these two topics. Thus, select the topic that you'd really like to talk about!

Which of the following topics would you like to discuss with fellow participants? (in randomized display order)

Talk about TODAY’s WEATHER
Talk about the SPICED APPLE CIDER [SURPRISE SEASONAL DRINK]

---

Before you get to the task where you may be matched with the other participants, consider what your conversation may be like.

Reminder: You indicated that you'd like to Talk about TODAY’s WEATHER / Talk about the SPICED APPLE CIDER [SURPRISE SEASONAL DRINK]

Take a few moments to mentally simulate the conversation. What are some things you'd like to say that would make for an engaging conversation? These may be statements, ideas, or questions.

In the box below, write at least 2-3 meaningful sentences that capture what you'd discuss about this topic with others:

[Text box provided].

Attention check

What best describes the product/item you will receive as part of this study?

- Banana smoothie recipe
- Graphite Logitech mousepad
- Surprise seasonal drink recipe
- Spiced apple cider recipe
- Surprise smoothie recipe
- Surprise mousepad

Cell sizes (cleaned data)

There were 138 participants in the certain and 146 participants in the mystery product condition.

SUPPLEMENTAL STUDY B: RULING OUT NOVELTY AS A FACTOR

The goal of this study was to tease out the effect of uncertainty from the effect of novelty\(^1\). Prior research has shown that consumers are more likely to talk about original (vs. familiar) products (Moldovan et al., 2011) as they usually are more interesting and/or surprising.

\(^1\) We thank an anonymous reviewer for this suggestion.
Further, research has suggested that mystery products may be perceived as more novel and innovative (Kovacheva & Nikolova, 2023) as they can be curated or created on the spot, increasing their uniqueness. Thus, it is important to determine whether the enhanced conversation intentions for the mystery products observed in all studies are driven by the products’ novelty or emerge regardless of it.

We reasoned that if novelty (rather than uncertainty) is responsible for the observed effects, then the difference in conversation likelihood between the mystery and certain product will be attenuated or even reversed if the certain offering is more novel. Conversely, if uncertainty influences conversation likelihood above and beyond novelty, we should still observe a greater desire for conversation in participants who considered purchasing the mystery (vs. certain novel) product.

We test this hypothesis next. To raise the novelty of the certain product (without altering the level of uncertainty), we selected the “compost cookie” which was created by the award-winning chef Christina Tosi of the Milk Bar and includes a number of very familiar ingredients (e.g., chocolate chips, potato chips, coffee grounds) that are not typically mixed together in a cookie. It has received a lot of online attention and positive ratings on food blogs and by Milk Bar customers (https://milkbarstore.com/products/compost-cookie-tin).

Method

Of the 300 Connect participants who completed this study (pre-registration: https://aspredicted.org/LQF_QZQ), 296 passed the attention check and were retained for analysis. Participants were randomly assigned to one of two conditions (mystery vs. certain product) and considered having just placed an online order for a box of cookies. Those in the
certain condition read that they picked a box of “compost” cookies, which were described as “the typical chocolate chip cookie with butterscotch chips, graham crackers, coffee grounds, potato chips, and pretzels bits added”; those in the mystery condition considered the box of surprise cookies used in Study 1. Then, participants responded to the dependent measure items from Study 3 ($\alpha = .86$), followed by a revised measure of joint speculation (3 items; example item: “My conversations about this purchase with others will involve an exchange of ideas about what the cookies would be like.”; $\alpha = .93$).

**Results**

A pre-test from the same population ($n = 100; M_{\text{age}} = 40.74, SD = 12.27; 51\%$ female) measured the perceived novelty (3 items: “How novel are these [cookies]?”, “How original are these [cookies]?”, “When you receive these [cookies], how likely is it that they will be something different from existing [cookies] on the market?”; $\alpha = .90$) and uncertainty (using the same two items from Study 1; $r = .81, p < .001$) of the two products in a between-subjects design. The results confirmed that the compost cookies were perceived as more novel ($M = 5.25, SD = 1.40$) than the surprise cookies ($M = 4.23, SD = 1.58; F(1, 98) = 11.63, p < .001, \eta_p^2 = .11$), but still less uncertain ($M = 4.04, SD = 1.71$) than the unknown cookies ($M = 5.59, SD = 1.42; F(1, 98) = 24.27, p < .001, \eta_p^2 = .20$).

Participants reported greater desire to talk about the mystery product ($M = 4.58, SD = 2.21$) than the certain one ($M = 4.00, SD = 2.20; F(1, 294) = 5.02, p = .03, \eta_p^2 = .02$).

Participants also expressed greater intentions to speculate with others about the surprise cookies ($M = 4.41, SD = 1.83$) than the certain cookies ($M = 3.92, SD = 1.87; F(1, 294) = 5.21, p = .02$,
\( \eta^2 = .02 \). In turn, joint speculation mediated the effect of product type on likelihood to talk \((b = .44, SE = .19, 95\% \ CI: [.06, .83]; \text{direct effect of condition: } b = .13, SE = .17, t = .78, p = .44)\).

**Discussion**

This study demonstrated that the difference in conversation likelihood and joint speculation between the mystery and certain product emerges even when the certain product is more novel than the mystery one. Hence, product uncertainty impacts consumers’ desire for conversation, above and beyond any effect of product novelty. In addition, we used a revised scale for joint speculation which more directly captures consumers’ interest in engaging in this process, offering further support for the proposed theory.

**Stimuli**

**CERTAIN PRODUCT CONDITION:**

Please read carefully and consider the following situation:

You feel like buying some COOKIES. While grocery shopping at your favorite online store, you notice a box of COMPOST CHOCOLATE CHIP COOKIES.

This is the typical chocolate chip cookie with butterscotch chips, graham crackers, coffee grounds, potato chips, and pretzels bits added.

The product has excellent reviews (4.8 out of 5 stars with 259 ratings) and the comments indicate that everything about these cookies is outstanding.

You order a box of these COMPOST CHOCOLATE CHIP COOKIES. The purchase will arrive within a couple of days.

**MYSTERY PRODUCT CONDITION:**

Please read carefully and consider the following situation:

You feel like buying some COOKIES. While grocery shopping at your favorite online store, you notice a box of SURPRISE COOKIES - the exact cookies will be a surprise and you will find out what they are only once you receive the package!
The product has excellent reviews (4.8 out of 5 stars with 259 ratings) and the comments indicate that everything about these cookies is outstanding.

You order a box of these SURPRISE COOKIES. The purchase will arrive within a couple of days.

Measures

Revised scale for joint speculation (1 = Strongly disagree, 7 = Strongly agree)

- I'd speculate about these cookies with others.
- My conversations about this purchase with others will involve coming up with different hypotheses about the outcome.
- My conversations about this purchase with others will involve an exchange of ideas about what the cookies would be like.

Cell sizes (cleaned data)

There were 144 participants in the certain and 152 participants in the mystery product condition.

SUPPLEMENTAL STUDY C: LISTENER’S OPTIMISM AS A MODERATOR

Our theory suggests uncertainty will result in joint speculation if it provides some utility to the conversation parties. Thus, we argue that the observed effects will be attenuated in contexts that cue the possibility for unpleasant or unproductive joint speculation – such as when talking to a pessimistic (vs. optimistic) friend, who may be disengaged and less supportive (Carver & Scheier, 2014). We test this hypothesis next.

Method

Of the 494 MTurk participants who completed this study (pre-registration: https://aspredicted.org/J3M_MNQ), 484 passed the attention checks and were retained for analysis. The study had a 2 (mystery vs. certain offering) by 3 (baseline, optimistic, pessimistic friend) between-subjects design.
Participants considered having just placed an online order for a box of chocolate chip cookies (certain condition) or surprise cookies (mystery condition), when they received a call from a friend. The friend was described as either an optimist or a pessimist, or no information was provided (baseline condition). Next, participants indicated their likelihood to mention their purchase to this friend, using two items from Study 1 ($r = .96$, $p < .001$; see MDA). They then completed the speculation scale from Study 3 ($\alpha = .78$). The manipulation checks for uncertainty ($r = .94$, $p < .001$) and the friend’s optimism (1-extremely pessimistic, 7-extremely optimistic) were captured last.

**Results**

The friend in the pessimistic condition was rated as less optimistic ($M = 1.64$, $SD = 1.10$) than in the baseline ($M = 5.36$, $SD = 1.21$) or the optimistic conditions ($M = 6.62$, $SD = .66$; $F(2, 478) = 1025.83$, $p < .001$, $\eta^2_p = .81$; all pairwise comparisons are significant, $ps < .001$). Further, product uncertainty was higher in the mystery ($M = 5.49$, $SD = 1.60$) than in the certain condition ($M = 2.27$, $SD = 1.50$; $F(1, 478) = 525.57$, $p < .001$, $\eta^2_p = .52$). Interestingly, there was also a marginal main effect of the friend condition ($F(2, 478) = 2.91$, $p = .06$, $\eta^2_p = .01$), such that the product was considered less uncertain in the optimistic friend condition ($M = 2.03$, $SD = 1.44$) than in the baseline ($M = 2.35$, $SD = 1.38$; $p = .07$) and pessimistic friend conditions ($M = 2.39$, $SD = 1.65$; $p = .02$); the latter two conditions were not different from each other ($p = .61$). Possibly thinking about an optimistic friend made participants perceive lower uncertainty in both the certain and the surprise product conditions. The interaction effect, however, was not significant ($F < 1$). Importantly, in all cells, the mystery offering was considered more uncertain than the certain one and the results on conversation intentions and joint speculation remain qualitatively unchanged if the uncertain manipulation check is included as a covariate.
The main effects of product certainty \((F(1, 478) = 10.38, p = .001, \eta^2_p = .02)\) and friend condition \((F(2, 478) = 156.08, p < .001, \eta^2_p = .40)\) on conversation intentions were qualified by their interaction \((F(2, 478) = 5.76, p = .003, \eta^2_p = .02)\). Replicating prior findings, participants in the baseline condition reported greater likelihood to talk about the mystery than the certain product \((p = .01; \text{see Figure A1})\). This difference remained significant when participants considered talking to an optimistic friend \((p < .001)\) but was attenuated in the pessimistic friend condition \((p = .43)\).

The same pattern of results emerged for joint speculation: the main effects of product certainty \((F(1, 478) = 77.71, p < .001, \eta^2_p = .14)\) and friend conditions \((F(2, 478) = 6.39, p = .002, \eta^2_p = .03)\) were qualified by their interaction \((F(2, 478) = 9.24, p < .001, \eta^2_p = .04)\). The mystery (vs. certain) product generated higher speculation in the baseline \((p < .001)\) and optimistic friend conditions \((p < .001)\) but not in the pessimistic condition \((p = .13, \text{see Figure A2})\).

A moderated mediation analysis (model 8; Hayes 2022) examined whether the effect of product certainty on the desire to talk about the product through speculation depended on friend condition. The multiscategorical moderator was effects-coded to compare the baseline condition against (1) the pessimistic and (2) the optimistic friend conditions. The index of moderated mediation was significant for both the baseline versus pessimistic comparison, (1) \(b = .53, SE = .14, 95\% \text{ CI:}[.27, .81]\) and the baseline versus optimistic comparison, (2) \(b = -.29, SE = .13, 95\% \text{ CI:}[-.55, -.04]\). Specifically, speculation mediated the effect of certainty on the desire to talk about the product in the baseline \((b = 1.01, SE = .17, 95\% \text{ CI:}[.69, 1.33])\) and the optimistic
conditions ($b = 1.06$, $SE = .19$, 95% CI:[.70, 1.44]), but not in the pessimistic condition ($b = .23$, $SE = .16$, 95% CI:[-.08, .57]; see detailed results in Table A7).

Figure A1: Desire to talk about the product (means and standard errors) in Study C

Figure A2: Joint speculation (means and standard errors) in Study C
Table A7: Moderated mediation results in Study C

<table>
<thead>
<tr>
<th>Outcome: Joint speculation</th>
<th>b</th>
<th>SE</th>
<th>t</th>
<th>p</th>
<th>LLCI</th>
<th>ULCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>2.84</td>
<td>0.2</td>
<td>14.21</td>
<td>&lt;.001</td>
<td>2.44</td>
<td>3.23</td>
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<tr>
<td>Certainty condition (1 = certain, 2 = mystery product)</td>
<td>1.12</td>
<td>0.13</td>
<td>8.82</td>
<td>&lt;.001</td>
<td>0.87</td>
<td>1.36</td>
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<tr>
<td>W1 (baseline vs. pessimistic friend)</td>
<td>-0.85</td>
<td>0.28</td>
<td>-3.04</td>
<td>0.002</td>
<td>-1.39</td>
<td>-0.3</td>
</tr>
<tr>
<td>W2 (baseline vs. optimistic friend)</td>
<td>0.41</td>
<td>0.29</td>
<td>1.43</td>
<td>&lt;.001</td>
<td>-0.15</td>
<td>0.98</td>
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<tr>
<td>Certainty condition by W1</td>
<td>0.77</td>
<td>0.18</td>
<td>4.29</td>
<td>&lt;.001</td>
<td>0.42</td>
<td>1.13</td>
</tr>
<tr>
<td>Certainty condition by W2</td>
<td>-0.42</td>
<td>0.18</td>
<td>-2.36</td>
<td>0.02</td>
<td>-0.77</td>
<td>-0.07</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Outcome: Desire to talk about the product</th>
<th>b</th>
<th>SE</th>
<th>t</th>
<th>p</th>
<th>LLCI</th>
<th>ULCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>2.39</td>
<td>0.32</td>
<td>7.49</td>
<td>&lt;.001</td>
<td>1.76</td>
<td>3.02</td>
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<tr>
<td>Certainty condition</td>
<td>-0.15</td>
<td>0.18</td>
<td>-0.83</td>
<td>0.41</td>
<td>-0.51</td>
<td>0.21</td>
</tr>
<tr>
<td>Joint speculation</td>
<td>0.69</td>
<td>0.06</td>
<td>11.19</td>
<td>&lt;.001</td>
<td>0.57</td>
<td>0.81</td>
</tr>
<tr>
<td>W1 (baseline vs. pessimistic friend)</td>
<td>1.61</td>
<td>0.38</td>
<td>4.26</td>
<td>&lt;.001</td>
<td>0.86</td>
<td>2.35</td>
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<tr>
<td>W2 (baseline vs. optimistic friend)</td>
<td>-0.88</td>
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<td>0.02</td>
<td>-1.64</td>
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<tr>
<td>Certainty condition by W1</td>
<td>0.35</td>
<td>0.25</td>
<td>1.4</td>
<td>0.16</td>
<td>-0.14</td>
<td>0.83</td>
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<tr>
<td>Certainty condition by W2</td>
<td>-0.39</td>
<td>0.24</td>
<td>-1.62</td>
<td>0.11</td>
<td>-0.87</td>
<td>0.08</td>
</tr>
</tbody>
</table>

Discussion

Building on prior work demonstrating that audience characteristics affect conversations (Barasch & Berger, 2014; Bastos & Brucks, 2017), this study showed that consumers’ desire to talk (and jointly speculate) about mystery products was attenuated when they considered talking to a pessimistic (vs. optimistic or unspecified) friend. We note, however, that the optimistic/pessimistic nature of the respondent may influence conversation intentions in general, regardless of whether the product involves any uncertainty: the sharp decrease in conversation intentions for the certain product between the optimistic/baseline condition and the pessimistic condition.
supports this point. Nevertheless, this study demonstrates that respondent’s personality can influence purchasers’ desire to jointly speculate (and talk) about mystery products.

**Stimuli**

**CERTAIN [MYSTERY] PRODUCT CONDITION:**

You feel like buying some [surprise] cookies. While grocery shopping at your favorite online store, you notice a box of the chocolate chip cookies that you are very familiar with. [While grocery shopping at your favorite online store, you notice a box of surprise cookies - the exact cookies will be a surprise and you will find out what they are only once you receive the package!]

The product has excellent reviews (4.8 out of 5 stars with 259 ratings) and the comments indicate that everything about these chocolate chip cookies is outstanding.

You order a box of these chocolate chip [surprise] cookies. The purchase will arrive within a couple of days.

**FRIEND [PESSIMISTIC/OPTIMISTIC FRIEND] CONDITION**

As you close your browser, a friend of yours calls you on the phone. This is a friend that you talk to frequently.

[You can describe this friend as a big pessimist: always seeing the worst in things, pointing out the potential negatives of a situation, and mentioning everything bad that could happen in a given context. / You can describe this friend as a big optimist: always seeing the best in things, pointing out the potential positives of a situation, and mentioning everything great that could happen in a given context.]
Take a few moments to consider this friend. Then answer the questions on the next page.

Measures

Desire to talk about the product (1 - Not at all likely, 9 - Extremely likely)

- How likely are you to talk about this purchase with this [optimistic/pessimistic] friend?
- How likely are you to mention to this friend that you are about to get these [chocolate chip/surprise] cookies?

Joint speculation (1-Strongly Disagree, 7-Strongly Agree)

- I can speculate about this product with my [optimistic/pessimistic] friend,
- Talking about this purchase with [optimistic/pessimistic] friend will involve coming up with different hypotheses about the outcome,
- A conversation about these [chocolate chip/surprise] cookies with my [optimistic/pessimistic] friend will involve an exchange of ideas about the possible outcomes

Attention checks: This study used the same attention checks as Study 4.

Cell sizes (cleaned data)

<table>
<thead>
<tr>
<th></th>
<th>Certain product</th>
<th>Mystery product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>82</td>
<td>81</td>
</tr>
<tr>
<td>Optimistic friend</td>
<td>71</td>
<td>92</td>
</tr>
<tr>
<td>Pessimistic friend</td>
<td>90</td>
<td>68</td>
</tr>
</tbody>
</table>
REFERENCES*


Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research, 18*(3), 382-388.


*Includes only references not listed in the main paper.*