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Humor in Online Brand-to-brand Dialogues : Unveiling the Difference between Top Dog and Underdog Brands

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► **To cite this version:**

Mathieu Béal, Charlotte Lécuyer, Ivan Guitart. Humor in Online Brand-to-brand Dialogues : Unveiling the Difference between Top Dog and Underdog Brands. *Journal of Interactive Marketing*, 2024, FORTH. hal-04666015

HAL Id: hal-04666015

<https://hal.science/hal-04666015>

Submitted on 1 Aug 2024

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Journal of Interactive Marketing

Humor in Online Brand-to-Brand Dialogues: Unveiling the Difference Between Top Dog and Underdog Brands

Journal:	<i>Journal of Interactive Marketing</i>
Manuscript ID	JNM-23-0155.R3
Manuscript Type:	Revised Submission
Keywords:	Firm-generated Content, Social Media
Methods:	Analysis of Variance, Online Experiments
Abstract:	<p>Many brands periodically respond humorously to the content that other brands and celebrities post on social media. Drawing on three scenario-based experiments and a content analysis of humorous tweets based on their likes and retweets, the authors use the benign violation theory to understand whether using humor constitutes a benign (i.e., translating into amusement) or malign (i.e., translating into ulterior motives) violation. The success of a humorous brand-to-brand interaction (i.e., brand attitudes and purchase intentions) depends on its ability to generate amusement without causing customers to suspect ulterior motives. Study 1's results reveal that customers respond more favorably when brands use affiliative humor rather than aggressive humor. Affiliative humor constitutes a benign violation that generates amusement, while aggressive humor constitutes a malign violation that leads customers to infer that brands have ulterior motives. Study 2 shows that aggressive humor partially compensates for its weaknesses over affiliative humor when brands target competing brands. Studies 3A and 3B reveal a reversed effect depending on brand positioning (top dogs versus underdogs). While underdog brands should always use affiliative humor, top dog brands could perform better by favoring aggressive humor (i.e., such brands could receive more likes and retweets without lowering customers' purchase intentions).</p>

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3 **HUMOR IN ONLINE BRAND-TO-BRAND DIALOGUES: UNVEILING THE**
4 **DIFFERENCE BETWEEN TOP DOG AND UNDERDOG BRANDS**
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HUMOR IN ONLINE BRAND-TO-BRAND DIALOGUES: UNVEILING THE DIFFERENCE BETWEEN TOP DOG AND UNDERDOG BRANDS

Abstract

Many brands periodically respond humorously to the content that other brands and celebrities post on social media. Drawing on three scenario-based experiments and a content analysis of humorous tweets based on their likes and retweets, the authors use the benign violation theory to understand whether using humor constitutes a benign (i.e., translating into amusement) or malign (i.e., translating into ulterior motives) violation. The success of a humorous brand-to-brand interaction (i.e., brand attitudes and purchase intentions) depends on its ability to generate amusement without causing customers to suspect ulterior motives. Study 1's results reveal that customers respond more favorably when brands use affiliative humor rather than aggressive humor. Affiliative humor constitutes a benign violation that generates amusement, while aggressive humor constitutes a malign violation that leads customers to infer that brands have ulterior motives. Study 2 shows that aggressive humor partially compensates for its weaknesses over affiliative humor when brands target competing brands. Studies 3A and 3B reveal a reversed effect depending on brand positioning (top dogs versus underdogs). While underdog brands should always use affiliative humor, top dog brands could perform better by favoring aggressive humor (i.e., such brands could receive more likes and retweets without lowering customers' purchase intentions).

Keywords: Humor, brand-to-brand dialogues, social media, competitive context, top dog brands, underdog brands

1
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3 Today, brands are increasingly using social media to engage in dialogues with their
4 customers, brands, and celebrities (Zhou, Du, and Cutright 2022). Some brands are becoming
5 popular thanks to their frequent humorous dialogues (e.g., Wendy's, Burger King, and
6 TescoMobile). Several recent studies have focused on the benefits and pitfalls of humorous
7 dialogues with customers (e.g., Batista et al. 2022; Béal, Grégoire, and Carrillat 2023; Liao,
8 Li, and Filieri 2022; Shin and Larson 2020). However, research investigating the
9 consequences of such humorous interactions between brands remains limited (Thomas and
10 Fowler 2021). Specifically, some brands have received thousands of likes and retweets for
11 engaging in humorous dialogues with other brands and celebrities on social media (see Figure
12 1), but research explaining these successes is limited. Nevertheless, humorous brand-to-brand
13 dialogues are an important aspect of today's brands' strategies. A recent survey of 12,183
14 worldwide customers and 3,125 business leaders concluded that 91% of customers expect
15 brands to be funny on social media but that 95% of business leaders are reluctant to
16 incorporate humor (Oracle Fusion Cloud Customer Experience 2022), mostly owing to their
17 limited experience of using humor. Indeed, depending on the circumstances, humor is a
18 double-edged sword that could either amuse customers or harm brands' reputations (Meyer
19 2000; Warren and McGraw 2016).
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Figure 1. Examples of brand-to-brand dialogues (A) and brand-to-celebrity (B) dialogues



One exception is Thomas and Fowler's (2021) research, which concluded that brands should avoid using humor when interacting with other brands. These researchers' conclusion requires further investigation as the aforementioned examples (see Figure 1) suggest that brands can benefit from humorous brand-to-brand dialogues. Hence, this research complements Thomas and Fowler's (2021) article in three ways. First, their research only focused on aggressive humor (i.e., laughing *at* the other brand), and we complement their research by comparing aggressive humor with affiliative humor (i.e., laughing *with* the other brand). Psychologists and marketing researchers have agreed that affiliative humor usually constitutes a more acceptable humor type than aggressive humor (Lussier, Grégoire, and Vachon 2017; Plessen et al. 2020). Second, Thomas and Fowler (2021) only investigated the negative manipulation aspect of humor. Relying on the benign violation theory (McGraw and Warren 2010), we simultaneously consider the positive (i.e., amusement) and negative (i.e., ulterior motives) consequences of humor. In brief, the benign violation theory explains that humor always begins with a violation (i.e., something wrong). In that regard, using humor in

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3 brand-to-brand dialogues constitutes a violation because brands are deliberately violating the
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5 communicational norms of respect and professionalism on social media (Gretry et al. 2017)
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7 and engaging in a deliberate act of rivalry with the targeted brand or celebrity (Berendt,
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9 Uhrich, and Thompson 2018). The benign violation theory explains that this violation could
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11 result in either a positive or negative experience depending on whether customers interpret the
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13 violation as benign (i.e., harmless and okay) or malign (i.e., hurtful and not okay). People's
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15 typical reaction to benign violations is to be amused (i.e., the psychological response to a
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17 humorous stimulus characterized by the thought that something is funny and the tendency to
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19 laugh; Warren, Barsky, and McGraw 2018). However, a malign violation could lead
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21 customers to suspect that the brand has ulterior motives (i.e., customers could question the
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23 motives that underlie the brand's behavior or question the authenticity of that behavior; Béal
24
25 and Grégoire 2022) in their use of humor. Hence, we consider the mediating roles of
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27 amusement and ulterior motives to determine whether attempts at humor are perceived as
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29 benign or malign violations. Third, we also complement Thomas and Fowler's (2021)
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31 research by investigating two brand-related variables that affect the effectiveness of the two
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33 aforementioned humor types (affiliative and aggressive): the *competitive context* (i.e., whether
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35 the two brands are direct competitors or not) and *brand positioning* (i.e., underdog versus top
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37 dog brands). Again, the benign violation theory explains that the interpretation of a violation
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39 as benign or malign depends on contextual circumstances (Warren, Barsky, and McGraw
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41 2022). In this research, we propose that these two brand-related factors influence the extent to
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43 which customers interpret affiliative humor and aggressive humor as benign or malign
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45 violations, thereby moderating our two aforementioned processes involving amusement and
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47 ulterior motives. For this purpose, we adopt a multimethod approach based on three
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49 experiment-based studies (Studies 1, 2, and 3A) and a content analysis based on objective
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3 performance metrics (Study 3B). Our results make three main contributions to theory and
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5 practice.
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8 First, Study 1's results show that the effectiveness of humorous brand-to-brand
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10 dialogues depends on the humor type. All things being equal, affiliative humor is more
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12 efficient than aggressive humor when it comes to improving brand attitudes and purchase
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14 intentions. In line with the benign violation theory, affiliative humor is more effective than
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16 aggressive humor because it constitutes a benign violation (Cann, Cann, and Jordan 2016;
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18 Martin et al. 2003). Consequently, customers are more amused by affiliative humor, which
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20 fosters their positive attitudes and purchase intentions in relation to the brand. Conversely,
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22 aggressive humor constitutes a malign violation and leads customers to infer that the
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24 perpetrating brand has ulterior motives and is denigrating the targeted brand in pursuit of
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26 personal profits and advantages, thereby negatively influencing customers' attitudes and
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28 purchase intentions. This latter observation echoes the conclusions of Thomas and Fowler
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30 (2021), who suggested that aggressive humor is not recommended in humorous brand-to-
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32 brand dialogues because customers perceive it as manipulative.
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38 Second, we investigate the moderating role of competitive context by analyzing how
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40 the effect changes when the brand targets a competitor (e.g., Wendy's versus McDonald's)
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42 versus a noncompetitor (e.g., Wendy's versus Bank of America). Study 2's results show that,
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44 although affiliative humor is not affected by the competitive context and always maintains its
45
46 superiority, aggressive humor partially compensates for its weaknesses regarding brand
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48 attitudes when the brand targets a competing brand. Two ambivalent effects on our mediators
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50 explain this result (Hemenover and Schimmack 2007). Using aggressive humor in dialogues
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52 with competitors constitutes a more severe malign violation (i.e., resulting in increased
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54 inferences of ulterior motives) because customers suspect that brands have much more to gain
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56 from this malicious act of rivalry to gain an advantage over their competitors (Berendt,
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Uhrich, and Thompson 2018; Thomas and Fowler 2021). However, customers also consider aggressive humor to be more benign when brands target competitors (i.e., resulting in increased amusement levels) because customers assume that this humorous demonstration of rivalry is more warranted as the brand is just “playing the competitive game” (Phillips-Melancon and Dalakas 2014).

Third, by focusing on competing brands (based on Study 2’s conclusions), we question whether brands should adapt their humor depending on their brand positioning and whether they are either underdogs (characterized by external disadvantages and a lack of resources but an indomitable spirit, passion, and determination to succeed; Paharia et al. 2011) or top dogs (characterized by rich resources or scale strength and the achievement of market success through their strong advantage; Paharia et al. 2011). The results from Studies 3A and 3B demonstrate that underdog brands should continue using affiliative humor to gain approval from customers. However, we observe the opposite for top dog brands, which can benefit more from using aggressive humor. Top dog brands are somewhat protected from norm violations and misbehavior (Hornsey et al. 2021; Kim, Park, and Lee 2018), which makes their use of aggressive humor appear more benign, which results in increased amusement levels in comparison with affiliative humor. Study 3B replicates this logic based on real humorous tweets with objective performance metrics (i.e., likes and retweets), and the results reveal that top dog brands receive more likes and retweets when using aggressive humor than when using affiliative humor.

Conceptual Framework and Hypotheses

Humor Types in Online Brand-to-Brand Dialogues

Humor involves any amusing communication that produces positive emotions and cognitions in the individual, group, or organization (Romero and Cruthirds 2004).

Researchers have paid considerable attention to humor in many marketing fields, including

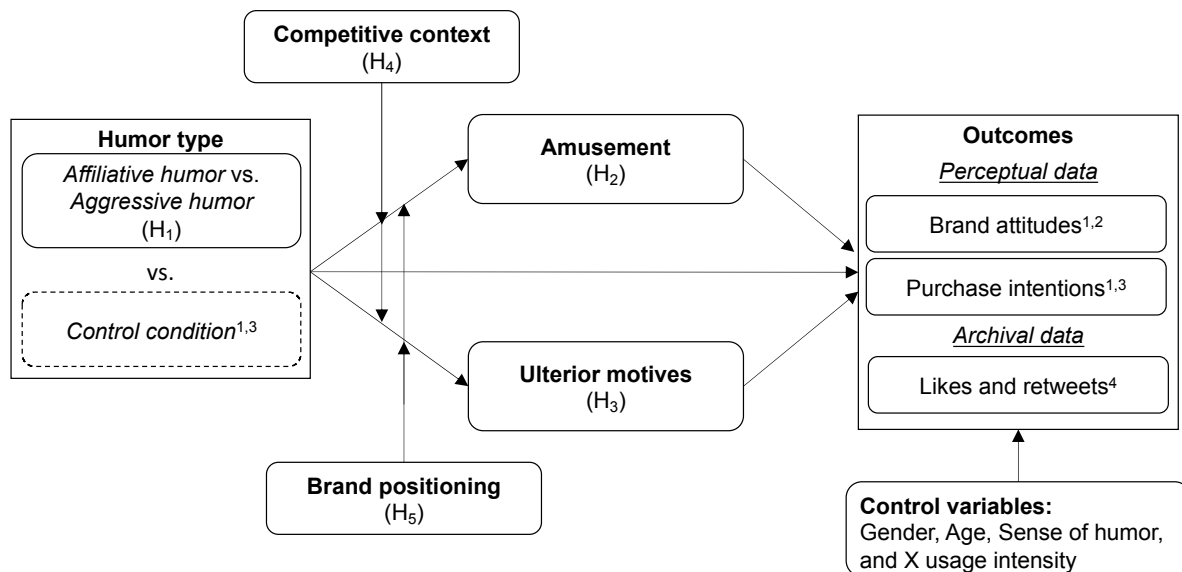
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3 advertising (e.g., Eisend 2009), B2B relationships (e.g., Lussier, Grégoire, and Vachon 2017),
4 and services (e.g., Mathies, Chiew, and Kleinaltenkamp 2016). More recently, studies have
5 highlighted the brand benefits of using humor on social media (Batista et al. 2022; Béal,
6 Grégoire, and Carrillat 2023; Liao, Li, and Filieri 2022; Shin and Larson 2020). However,
7 research has primarily focused on dialogues with customers, and the practice of using humor
8 to interact with other brands or celebrities has been overlooked (Thomas and Fowler 2021).
9
10 This situation is surprising considering the popularity of certain humorous brand-to-brand
11 dialogues (see Figure 1). It should be noted that this research focuses on dialogues on social
12 media, which differ from other practices such as comparative advertising or parodic
13 advertising. Online dialogues are more dynamic than comparative advertising, facilitating
14 real-time interactions and opening the possibility of immediate and direct responses (Hennig-
15 Thureau et al. 2010). Conversely, in advertising, the compared-to brand does not have a
16 method to respond directly (Grewal et al. 1997).

17
18 We build on Thomas and Fowler's (2021) recent research, which study humorous
19 brand-to-brand dialogues on social media. Their key recommendation is that brands should
20 avoid using humor in this context owing to the risk of being perceived as manipulative.
21 However, their research only focuses on aggressive humor² which refers to a malicious type
22 of humor that tends to disparage and belittle the target of the joke (e.g., sarcasm and irony;
23 Martin et al. 2003). Aggressive humor is often associated with negative outcomes (Plessen et
24 al. 2020; Schneider, Voracek, and Tran 2018), which could explain the researchers'
25 conclusions. Consequently, our research complements theirs by comparing this humor type
26 with affiliative humor (i.e., all forms of humor that attempt to improve group cohesion and
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57 ² The researchers compared low aggressive humor and high aggressive humor. Unlike the tactics of our research,
58 which compares aggressive humor with affiliative humor, the researchers' two tactics both represented "forms of
59 disparaging humor, but they vary in their degree of negativity" (Thomas and Fowler 2021; p. 2). Consequently,
60 low aggressive humor cannot be confused with affiliative humor because the latter is a positive and benevolent
form of humor that does not encompass any notion of negativity.

reduce intragroup tension, including puns and playful mocking; Martin et al. 2003). The difference between these two humor types is that affiliative humor involves laughing *with* the targeted brand and aggressive humor involves laughing *at* the targeted brand. Hence, the main logic of our model (see Figure 2) is to compare these two humor types regarding brand attitude and purchase intentions.

Figure 2. Conceptual model and hypotheses



Note: ¹Study 1, ²Study 2, ³Study 3A, ⁴Study 3B.

We hypothesize that customers have a more positive brand attitude and greater purchase intentions when brands use affiliative humor rather than aggressive humor in their dialogues with other brands. Affiliative humor is naturally used to build relationships and improve group cohesion (Martin et al. 2003), while aggressive humor is often portrayed as an undesirable social behavior that makes the perpetrator appear disagreeable (Kowalski 2000). Moreover, marketing studies (e.g., Béal and Grégoire 2022; Lussier, Grégoire, and Vachon 2017; Shin and Larson 2020) and meta-analyses in psychology (Mesmer-Magnus, Glew, and Viswesvaran 2012; Plessen et al. 2020; Schneider, Voracek, and Tran 2018) have already demonstrated the superiority of affiliative humor in many other contexts.

H₁: Affiliative humor improves (a) brand attitudes and (b) purchase intentions more than aggressive humor.

The Benign Violation Theory and the Mediating Roles of Amusement and Ulterior Motives

There is a myriad of theories about humor that have no clear consensus on which theory is the best to understand this phenomenon (Do and Warren 2023; Warren, Barsky, and McGraw 2022). However, the incongruity theory (Graham, Papa, and Brooks 1992), the superiority theory (Gulas, Weinberger, and Swani 2017; Swani, Weinberger, and Gulas 2013), the arousal safety theory (Gulas and Weinberger 2006), and the benign violation theory (McGraw and Warren 2010; Veatch 1998) have constituted the most popular theories thus far. The incongruity theory explains that humor is a cognitive process based on the disjointed and ill-suited pairings of ideas (Graham, Papa, and Brooks 1992). People laugh at surprising and incongruous situations that result in a satisfactory resolution of the incongruity (Hillson and Martin 1994). The superiority theory explains that people laugh at situations that provide them with a sense of personal glory and allow them to achieve their power and secure their dominance over the target of the joke (Gulas, Weinberger, and Swani 2017; Romero and Arendt 2011; Weinstein, Hodgins, and Ostvik-White 2011). However, research has suggested that superiority is too narrow a concept to explain humor appreciation as people can feel superior to others without appreciating humor and can appreciate humor without feeling superior (Warren, Barsky, and McGraw 2022). The arousal safety theory explains that laughs result from a threatening stimulus that first arouses individuals before they finally realize that the stimulus is nonthreatening (Graham, Papa, and Brooks 1992; Gulas and Weinberger 2006; Robinson and Smith-Lovin 2001). Lastly, the benign violation theory suggests that a stimulus generates laughter and amusement if it constitutes a violation (i.e., something wrong) that is simultaneously perceived as benign (i.e., harmless and okay; McGraw and Warren 2010; Veatch 1998). In this research, we rely on the benign violation theory based on the

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3 conclusions of two recent integrative reviews³ (Warren, Barsky, and McGraw 2018, 2022)
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5 arguing that this theory provides a more satisfactory framework than the other humor theories
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7 owing to its ability to predict “what makes things funny” but also “what makes things not
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9 funny” (McGraw and Warren 2010). With the benign violation theory as our reference
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11 framework, we consider the mediating roles of amusement and ulterior motives to determine
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13 whether attempts at humor constitute either benign or malign violations.
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17 The benign violation theory explains that humor always begins with a violation (i.e.,
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19 something that threatens one’s sense of how the world ought to be; McGraw and Warren
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21 2010; Veatch 1998). Violations can take many forms, such as physical threats (e.g., a video of
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23 someone falling), identity threats (e.g., posting an embarrassing picture on social media), or
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25 norm threats (e.g., farting at a dinner table; Warren, Barsky, and McGraw 2022). In our
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27 context of interest, using humor in brand-to-brand dialogues constitutes a violation of
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29 communication norms on social media (Ning et al. 2022; Thomas and Fowler 2021). Brands
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31 are expected to be professional, formal, and respectful in their communication style on social
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33 media (Gretry et al. 2017; Hübner Barcelos, Dantas, and Sénécal 2018; Zhou, Du, and
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35 Cutright 2022). Using humor violates these communication norms because, in using humor,
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37 brands are deliberately opting for an informal and familiar communication style to converse
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39 with other brands. However, the benign violation theory explains that this violation can
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41 generate amusement if it is simultaneously perceived as benign, which would mean that it is
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43 acceptable, playful, and nonserious (McGraw, Warren, and Kan 2015). Amusement is the
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45 audience’s typical reaction to a benign violation (Warren, Barsky, and McGraw 2018) and is
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47 associated with improved brand attitudes and purchase intentions (Béal, Grégoire, and
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49 Carrillat 2023). Conversely, a brand’s inability to signal to the audience that its attempt at
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58 ³ Owing to space constraints, we cannot detail the entire logic explaining the superiority of the benign violation
59 theory over the incongruity theory, the superiority theory, and the arousal safety theory to capture the
60 mechanisms of humor. We recommend that readers refer to Warren, Barsky, and McGraw (2022) for more
details.

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3 humor is benign constitutes a malign violation, which could lead customers to suspect that the
4 brand probably has ulterior motives (Béal and Grégoire 2022; Cann, Cann, and Jordan 2016).
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6 Customers infer ulterior motives when they suspect that the brand is using humor to gain
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8 advantages and profits, which makes the brand appear manipulative and insincere (Campbell
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10 1999; Campbell and Kirmani 2000; Thomas and Fowler 2021) and which negatively
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12 influences customers' attitudes and intentions in relation to the brand (DeCarlo 2005; Fein,
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14 Hilton, and Miller 1990; Yoon, Gürhan-Canli, and Schwartz 2006). In sum, amusement
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16 captures whether an attempt at humor constitutes a benign violation, while ulterior motives
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18 capture whether an attempt at humor constitutes a malign violation.
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24 The benign violation theory and the mediating roles of amusement and ulterior
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26 motives are helpful to better understand the logic that affiliative humor outperforms
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28 aggressive humor (developed in H₁). By definition, affiliative humor is a benign form of
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30 humor that signals to the audience that the attempt at humor is playful and should not be taken
31
32 seriously (Martin et al. 2003). Affiliative humor is considered light and friendly and does not
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34 severely transgress communicational norms on social media (Béal, Grégoire, and Carrillat
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36 2023). Accordingly, using affiliative humor constitutes a benign violation that should generate
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38 amusement while mitigating customers' suspicions of ulterior motives. Conversely,
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40 aggressive humor constitutes a malign violation that flouts the traditional norms of respect
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42 and civility (Kowalski 2000; Meyer 2000; Swani, Weinberger, and Gulas 2013). The
43
44 frivolous and mocking nature of aggressive humor makes brands appear as though they wish
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46 to engage in a malign form of rivalry to ridicule and denigrate other brands (Cann and Matson
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48 2014; Cooper 2005). Brands use aggressive humor to mock their competitors to take
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50 advantage of the situation through the belittlement of the targeted brand (Cann and Matson
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52 2014; Thomas and Fowler 2021), which could lead customers to suspect that the perpetrating
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54 brands have ulterior motives (Reeder et al. 2002). Customers could suspect that the
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perpetrating brand is using aggressive humor to damage the other brand's reputation to gain personal profit from the situation (Béal and Grégoire 2022; Cann, Cann, and Jordan 2016). Accordingly, we hypothesize that aggressive humor is associated with a higher number of perceptions of ulterior motives and lower levels of amusement in comparison with affiliative humor, which negatively influences brand attitudes and purchase intentions.

H₂: Amusement mediates the effects of humor types on (a) brand attitudes and (b) purchase intentions. Affiliative humor results in a higher level of amusement than aggressive humor, which, in turn, positively affects brand attitudes and purchase intentions.

H₃: Ulterior motives mediate the effects of humor types on (a) brand attitudes and (b) purchase intentions. Aggressive humor results in a higher number of perceptions of ulterior motives than affiliative humor, which, in turn, negatively affects brand attitudes and purchase intentions.

The Moderating Role of the Competitive Context

The benign violation theory also explains that the interpretation of a violation as either benign or malign can be affected by different contextual factors (Warren, Barsky, and McGraw 2022), including the characteristics of the perpetrator and the target of the joke (Burmeister and Carels 2014; Gutman and Priest 1969). In a marketing context where the perpetrator and target are brands, these characteristics represent a set of brand-related factors that managers use to position and differentiate brands. On social media, brands face a landscape of other brands with different brand-related characteristics that managers should consider when adapting their sense of humor. In other words, we hypothesize that managers must adapt their humor depending on certain brand-related characteristics. Specifically, this research considers competitive context and brand positioning as two brand-related factors that could affect the extent to which the two aforementioned humor types (i.e., affiliative and aggressive) are perceived as a benign or malign violation. We have also elected to focus on these two brand-related factors because managers can easily identify and use them to adapt their brand strategies (i.e., type of humor in our context). The first of these brand-related

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2
3 factors is the competitive context. Specifically, we assess whether the relative effectiveness of
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5 our two humor types differs when brands target competing brands (e.g., Wendy's versus
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7 McDonald's) or noncompeting brands (e.g., Wendy's versus Bank of America). Two brands
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9 are considered competitors if they operate within the same market and offer similar products
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11 and/or services, thereby fulfilling customers' requirements in the exact same manner (Aaker
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13 2012; Clark and Montgomery 1999).
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17 Again, we use the benign violation theory to explain how the competitive context
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19 between the two brands influences whether customers interpret an attempt at humor as either
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21 a benign or malign violation. Regarding affiliative humor, we do not expect the competitive
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23 context to affect the effectiveness of this type of humor. Affiliative humor is intrinsically a
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25 socially accepted type of humor and is considered appropriate in all contexts (Ferguson and
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27 Ford 2008; Weinstein, Hodgins, and Ostvik-White 2011). Furthermore, the notion of
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29 competition and rivalry is not particularly salient in affiliative humor, so brands respect the
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31 "never knock the competition" axiom (Berendt, Urich, and Thompson 2018). Conversely,
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33 rivalry is a core component of aggressive humor because its objective is to disparage others
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35 (Martin et al. 2003; Meyer 2000), and we hypothesize that the competitive context affects
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37 whether customers interpret this type of humor as warranted (i.e., benign) or not. We expect
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39 ambivalent interpretations of aggressive humor when brands target competitors. Negatively,
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41 using aggressive humor against a competitor constitutes a more malign violation (Kowalski
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43 2000; Meyer 2000), thereby resulting in a higher number of perceptions of ulterior motives
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45 (as per the logic of H₃). When brands use aggressive humor against their competitors, they
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47 publicly signal that they are engaging in a malicious act of rivalry to gain a personal
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49 advantage (Berendt, Urich, and Thompson 2018), thereby increasing the salience of their
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51 ulterior motives. Brands' use of aggressive humor is a deliberate act whose aim is to discredit
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53 and belittle competitors, and, for customers, there can be no doubt that the brand is clearly
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3 violating the norms of respect and civility (Phillips-Melancon and Dalakas 2014). However,
4 customers' suspicions that brands have ulterior motives when the brands use aggressive
5 humor should be lessened when brands target noncompetitors because customers should infer
6 that the brands have nothing to gain from belittling brands with which they do not compete.
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12 Positively, a brand's targeting of a competitor when using aggressive humor can make
13 the violation appear more benign, thereby increasing customers' amusement levels (as per the
14 logic of H₂). Although using aggressive humor can make customers more suspicious of
15 brands' real motives, it can also make the violation appear more benign because customers
16 realize that the brand is just "playing the competitive game." Overall, this ambivalent
17 interpretation of aggressive humor in a competitive context as both malign (i.e., associated
18 with a higher number of perceptions of ulterior motives) and benign (i.e., associated with
19 increased amusement) should make it more effective in competitive contexts (compared to
20 noncompetitive contexts) but still not more acceptable than affiliative humor.
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34 **H₄:** The competitive context moderates the effects of humor types on
35 brand attitudes. When brands are competitors, the difference in brand
36 attitudes between affiliative humor and aggressive humor is lower
37 than when brands are not competitors.
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40 **H_{4a}:** The mediating role of ulterior motives explains the interaction
41 effect described in H₄. The competitive context moderates the effects
42 of humor types on ulterior motives. When brands are competitors, the
43 difference in ulterior motives between affiliative humor and
44 aggressive humor is higher than when brands are not competitors.
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47 **H_{4b}:** The mediating role of amusement explains the interaction effect
48 described in H₄. The competitive context moderates the effects of
49 humor types on amusement. When brands are competitors, the
50 difference in amusement between affiliative humor and aggressive
51 humor is lower than when brands are not competitors.
52

53 ***The Moderating Role of Brand Positioning: Top Dog versus Underdog***

54 Focusing on competing brands (based on H₄), we consider the moderating role of
55 brand positioning as our second brand-related factor that managers should consider when
56 adapting their sense of humor. Specifically, we distinguish between underdog brands
57 (characterized by external disadvantages and a lack of resources but an indomitable spirit,
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3 passion, and determination to succeed) and top dog brands (characterized by rich resources or
4 scale strength and the achievement of market success through their strong advantage; Paharia
5 et al. 2011). Psychologists have explained that the relative power, status, and size of the
6 perpetrator are crucial in interpreting the violation that aggressive humor causes (Keltner et al.
7 1998; Robinson and Smith-Lovin 2001; Romero and Cruthirds 2004), and these different
8 aspects of power, status, and size tap into the concept of brand positioning in marketing
9 research (Jin and Huang 2018; Li and Zhao 2018; Paharia et al. 2011). Underdog brands are
10 usually considered small and powerless, while top dog brands are large and powerful
11 corporations (Paharia et al. 2011).

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24 Again, we rely on the benign violation theory to explain that brand positioning is a
25 contextual factor that should influence the extent to which customers perceive humor types as
26 either benign or malign (Warren, Barsky, and McGraw 2022). We hypothesize that underdog
27 brands should continue using affiliative humor because such humor is perceived as a more
28 benign violation than aggressive humor. Customers have high ethical expectations from
29 underdog brands and expect such brands to behave carefully and inhibit their actions to
30 respect moral behaviors (Keltner et al. 2001; Kirmani et al. 2017; Yang and Aggarwal 2019).
31 Underdog brands are vulnerable to norm violations and transgressions (e.g., Hornsey et al.
32 2021; Kirmani et al. 2017; Li and Zhao 2018; Tang and Tsang 2020; Tezer, Bodur, and
33 Grohmann 2022), and they are not expected to engage in direct rivalry (Motsi 2024).
34 Consequently, customers judge underdog brands more harshly when these brands violate
35 norms. Hence, a norm-violating humor type, such as aggressive humor, is more likely to be
36 perceived as a malign violation for underdog brands, thereby lowering customers' amusement
37 levels and exacerbating their suspicions of ulterior motives.

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56 However, we expect that customers perceive aggressive humor more as a benign
57 violation when top dog brands use it. Top dog brands are large-sized and powerful brands
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3 with a dominant market position (Paharia et al. 2011), and these aspects should affect
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5 customers' evaluations of aggressive humor. People appreciate aggressive forms of humor,
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7 such as teasing and mocking, more when high-status and powerful managers use them in
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9 dialogues with their subordinates than in the opposite direction (Cooper 2005; Romero and
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11 Cruthirds 2004). Customers tend to feel less offended by a violation if it is committed by large
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13 corporations than if it is committed by smaller businesses (Hornsey et al. 2021; Kim and Park
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15 2020). Moreover, top dog brands can get away with aggressive humor since they are well
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17 known, whereas underdog brands cannot (Brown, Bhadury, and Pope 2010). Customers are
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19 more likely to accept disinhibited and counternormative actions from powerful brands (i.e.,
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21 top dogs) and consider that their violations are more benign (Keltner et al. 2001; Knegtmans
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23 et al. 2018). For all these reasons, we hypothesize that brand positioning as a top dog brand
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25 should make customers interpret aggressive humor as a more benign violation, thereby
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27 leading to increased amusement and fewer perceptions of ulterior motives.
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33 **H₅:** Brand positioning moderates the effects of humor types on
34 purchase intentions. When the brand is an underdog, affiliative humor
35 leads to higher purchase intentions than aggressive humor. When the
36 brand is a top dog, aggressive humor leads to higher purchase
37 intentions than affiliative humor.
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39 **H_{5a}:** The mediating role of ulterior motives explains the interaction
40 effect described in H₅. Brand positioning moderates the effects of
41 humor types on ulterior motives. When the brand is an underdog, the
42 number of perceptions of ulterior motives is higher when the brand
43 uses aggressive (versus affiliative) humor. When the brand is a top
44 dog, the number of perceptions of ulterior motives is lower when the
45 brand uses aggressive (versus affiliative) humor.
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48 **H_{5b}:** The mediating role of amusement explains the interaction effect
49 described in H₅. Brand positioning moderates the effects of humor
50 types on amusement. When the brand is an underdog, amusement
51 levels are higher when the brand uses affiliative (versus aggressive)
52 humor. When the brand is a top dog, amusement levels are higher
53 when the brand uses aggressive (versus affiliative) humor.
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Overview of Studies

To test our hypotheses, we adopted a multimethod approach combining three scenario-based experiments with a content analysis of real humorous tweets and their likes and retweets. Study 1 is a scenario-based experiment that tested the effectiveness of our two humor types for brand attitudes and purchase intentions (H_1). Study 1 also introduced the mediating roles of amusement (H_2) and ulterior motives (H_3). Study 2 is a scenario-based experiment that tested the moderating role of the competitive context (H_4). Study 3A is another scenario-based experiment that tested the interaction between humor types and brand positioning (H_5), while Study 3B replicates this interaction for real tweets with their objective performance metrics (i.e., likes and retweets).

Study 1

Procedures and Measures

Study 1 was designed to test the direct effect of humor types on brand attitudes and purchase intentions (H_1) and the mediating roles of amusement and ulterior motives (H_2 – H_3). Study 1 is a preregistered⁴ single-factor scenario-based experiment with three conditions (humor type: affiliative humor, aggressive humor, nonhumorous comment). Initially, we pretested our stimuli and manipulations by showing the participants an X (formerly Twitter) post that a fictional fast-food chain called Chicky had written: “Today, it’s been 80 years since we serve our chicken burgers to our customers.” Subsequently, we created five humorous responses from another fictional fast-food chain called Burger’s. For this pretest, using Prolific (Peer et al. 2017), we recruited 159 U.S. participants (49.1% female, 49.1% male, and 1.9% nonbinary; $M_{\text{age}} = 39.18$ years, $SD = 12.56$) who were randomly assigned to our five stimuli. In all conditions, the participants had to indicate to what extent they

⁴ Anonymized link to the preregistration:
https://osf.io/my4h3/?view_only=df8b7eb799c6438e865f741c8f81b126

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3 considered that Burger's had used affiliative humor (four items including "The company
4 Burger's responded to laugh with the company Chicky," $\alpha = .91$; Béal and Grégoire 2022)
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6 and aggressive humor (three items including "The company Burger's is using an offensive
7 and hurtful form of humor," $\alpha = .91$; Béal and Grégoire 2022). Eventually, we retained the
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9 stimuli "We don't have any presents but having us as your competitor is a gift in itself" to
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11 manipulate the affiliative humor condition ($M_{\text{affiliative}} = 4.77 > M_{\text{aggressive}} = 2.31, p < .01$) and
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13 "More candles on your cake than customers in your restaurants" for our aggressive humor
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15 condition ($M_{\text{aggressive}} = 4.92 > M_{\text{affiliative}} = 3.12, p < .01$) as they both had the highest scores on
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17 the respective scales.⁵ In the control condition, the brand Burger's answered "Time is running
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19 out so fast." The detailed scenario and retained stimuli are provided in Web Appendix A.

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26 Using Prolific, we recruited 209 U.S. participants, seven of whom were automatically
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28 removed because they had failed one of our attention checks, which resulted in a final sample
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30 of 202 participants (52% female, 46.5% male, and 1.5% nonbinary; $M_{\text{age}} = 40.22$ years, $SD =$
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32 12.86). We checked our manipulation using the same scales for affiliative humor and
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34 aggressive humor as in the pretest. The participants in the affiliative humor condition scored
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36 higher on the affiliative humor scale than the participants in the other two conditions
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38 ($M_{\text{affiliative}} = 5.02 > M_{\text{nonhumorous}} = 3.91 > M_{\text{aggressive}} = 2.65, F(2, 199) = 56.52, p < .01$).
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40 Conversely, the participants in the aggressive humor condition scored higher on the
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42 aggressive humor scale than the other two conditions ($M_{\text{aggressive}} = 5.41 > M_{\text{nonhumorous}} = 3.22 >$
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44 $M_{\text{affiliative}} = 2.06, F(2, 199) = 103.65, p < .01$). Manipulation checks also showed that the
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46 control condition had scored lower regarding the two humor type scales than the respective
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48 conditions where the brand had used affiliative humor ($M_{\text{affiliative}} = 5.02 > M_{\text{nonhumorous}} = 3.91,$
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57 ⁵ In the pretest, we did not check whether affiliative humor and aggressive humor elicited similar levels of
58 amusement because we hypothesized a difference between these two types of humor (H_2). The objective of all
59 our pretests was to test whether the humorous stimuli were appropriate regarding humor types, while the main
60 studies also tested customers' reactions to these stimuli, especially regarding amusement. We thank an
anonymous reviewer for requesting such clarification.

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3 $p < .01$) or aggressive humor ($M_{\text{aggressive}} = 5.41 > M_{\text{nonhumorous}} = 3.22, p < .01$). Overall, our
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5 manipulation was successful.
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8 We measured brand attitudes (five items including “To what extent the joke made
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10 Burger’s seem: Unappealing (1) – Appealing (7),” $\alpha = .99$; Park et al. 2010) and purchase
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12 intentions (three items including “I would purchase Burger’s products,” $\alpha = .96$; Grewal et al.
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14 1998) as dependent variables. Our two mediators were amusement (three items including
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16 “Burger’s response was funny,” $\alpha = .95$; McGraw, Warren, and Kan 2015) and ulterior
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18 motives (four items including “Burger’s intended to take advantage of the situation,” $\alpha = .91$;
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20 Joireman et al. 2013). Web Appendix B provides the detailed scales and psychometric
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22 properties. When studying humor online, we also controlled for important variables such as
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24 sense of humor (three items including “I easily recognize a hint, such as a wink or a slight
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26 change in emphasis, as a mark of humorous intent,” $\alpha = .84$; Svebak 1996), X usage intensity
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28 (three items including “Twitter is part of my everyday activity,” $\alpha = .94$; Hübner Barcelos,
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30 Dantas, and Sénécal 2018), gender, and age.⁶ We built a measurement model (AMOS Version
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32 26), which included eight factors (i.e., affiliative humor, aggressive humor, amusement,
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34 ulterior motives, brand attitudes, purchase intentions, sense of humor, and X usage intensity),
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36 and 28 items yielded a satisfactory fit ($CFI = .96, TLI = .96, RMSEA = .07, \chi^2 = 598.72, df =$
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38 $320, p < .01$). All items loaded higher than .50 on their corresponding constructs, which
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40 suggested adequate convergent validity (Fornell and Larcker 1981). Moreover, the square
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42 roots of the average variance extracted (AVE) for each construct were substantially greater
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44 than its correlations with the other constructs, which suggested adequate discriminant validity
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46 (Fornell and Larcker 1981). Furthermore, the participants perceived the scenario as realistic
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⁶ We confirmed that neither sense of humor ($p = .38$), X usage intensity ($p = .29$), gender ($p = .35$), nor age ($p = .32$) differed between our three experimental conditions.

(two items: “The situation described in this scenario is realistic” and “The situation is likely in real life,” $\alpha = .90$, $M = 5.56$ on a 7-point Likert scale).

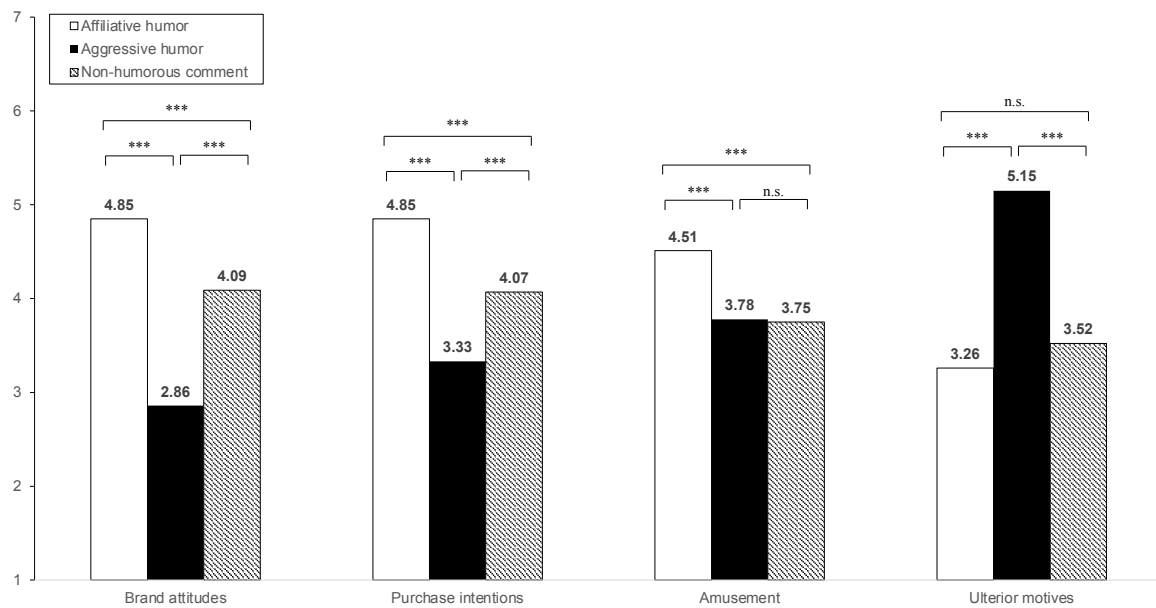
Results for Study 1

The effects of humor types on brand attitudes and purchase intentions (H₁).

The results from a MANCOVA (see Figure 3) showed that humor type had a significant direct effect on brand attitudes⁷ ($F(2, 195) = 29.49$, $p < .01$, $\omega_p^2 = .23$), such that the participants developed greater brand attitudes when the brands had used affiliative humor rather than aggressive humor ($M_{\text{affiliative}} = 4.85 > M_{\text{aggressive}} = 2.86$, $p < .01$). We replicated the same analysis with purchase intentions as the dependent variable, and the results showed that humor type had a significant direct effect ($F(2, 195) = 19.66$, $p < .01$, $\omega_p^2 = .19$), such that purchase intentions were higher when the brands had used affiliative humor rather than aggressive humor ($M_{\text{affiliative}} = 4.85 > M_{\text{aggressive}} = 3.33$, $p < .01$). H₁ was validated. We also compared the efficiency of our two humor types with the nonhumorous condition, and the results showed that affiliative humor generated higher levels for brand attitudes ($M_{\text{affiliative}} = 4.85 > M_{\text{nonhumorous}} = 4.09$, $p < .01$) and purchase intentions ($M_{\text{affiliative}} = 4.85 > M_{\text{nonhumorous}} = 4.07$, $p < .01$), while aggressive humor performed less than the nonhumorous condition regarding brand attitudes ($M_{\text{aggressive}} = 2.86 < M_{\text{nonhumorous}} = 4.09$, $p < .01$) and purchase intentions ($M_{\text{aggressive}} = 3.33 < M_{\text{nonhumorous}} = 4.07$, $p < .01$).

⁷ Web Appendix C provides additional analyses where we considered the effects of brand attitudes on several outcomes, including purchase intentions, engagement with posts, and brand equity. The results showed that brand attitudes constituted a strong predictor of these other variables and represented the key dependent variable in this research.

Figure 3. Visual representation of the direct effects of humor types on brand attitudes, purchase intentions, amusement, and perceptions of ulterior motives



Note: *** $p < .01$; ** $p < .05$; * $p < .10$; n.s. = not significant

Mediation effects of ulterior motives and amusement (H_2).

We ran another MANCOVA (see Figure 3) that showed that humor type significantly affected amusement ($F(2, 195) = 3.68, p < .05, \omega_p^2 = .04$), such that the brand was found to be funnier in the affiliative humor condition than in the aggressive humor ($M_{\text{affiliative}} = 4.51 > M_{\text{aggressive}} = 3.78, p < .01$) and the nonhumorous conditions ($M_{\text{affiliative}} = 4.51 > M_{\text{nonhumorous}} = 3.75, p < .01$). However, we observed no difference between aggressive humor and the nonhumorous condition regarding amusement ($M_{\text{aggressive}} = 3.78 \approx M_{\text{nonhumorous}} = 3.75, p > .10$). Moreover, humor type significantly affected ulterior motives ($F(2, 195) = 35.41, p < .01, \omega_p^2 = .27$), such that the participants inferred more ulterior motives when the brand had used aggressive humor in comparison with the other two conditions ($M_{\text{aggressive}} = 5.15 > M_{\text{affiliative}} = 3.26, p < .01; M_{\text{aggressive}} = 5.15 > M_{\text{nonhumorous}} = 3.52, p < .01$). However, we observed no difference between affiliative humor and the nonhumorous condition ($M_{\text{affiliative}} = 3.26 \approx M_{\text{nonhumorous}} = 3.04, p > .10$). Web Appendix D provides the detailed results with and without our covariates, concluding that our effects of interest were unaffected.

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3 As a formal test of H₂ and H₃, we used the PROCESS macro (Hayes 2017; Model 4;
4 5,000 resamples) with humor type as the independent variable, amusement and ulterior
5 motives as parallel mediators, and brand attitudes as the dependent variable (Web Appendix E
6 provides a replication of the same results with purchase intentions as the dependent variable).
7 Given that our independent variable employed three levels (affiliative humor, aggressive
8 humor, and a nonhumorous condition), we ran moderated mediation models by employing a
9 multicategory analysis for the independent variable, which resulted in three models: a model
10 comparing affiliative humor with aggressive humor (Model A), a model comparing affiliative
11 humor with the nonhumorous condition (Model B), and a model comparing aggressive humor
12 with the nonhumorous condition (Model C). For Model A, which compared aggressive humor
13 (coded 0) with affiliative humor (coded 1), the results showed that the indirect effect through
14 amusement was significant and favored affiliative humor ($\beta = .31$, CI₉₅ [.051, .605]), such that
15 affiliative humor elicited higher levels of amusement, which, in turn, improved brand
16 attitudes. This finding confirmed H₂. Moreover, the indirect effect through ulterior motives
17 was significant and favored affiliative humor ($\beta = .74$, CI₉₅ [.452, 1.064]), such that
18 aggressive humor elicited a higher number of perceptions of ulterior motives than affiliative
19 humor, which, in turn, negatively influenced brand attitudes. This finding confirmed H₃.

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21 For Model B, which compared the nonhumorous condition (coded 0) with affiliative
22 humor (coded 1), the results showed that the indirect effect through amusement was
23 significant and favored affiliative humor ($\beta = .30$, CI₉₅ [.047, .580]), such that affiliative
24 humor generated more amusement than the nonhumorous condition, which resulted in
25 improved brand attitudes. However, the indirect effect through ulterior motives was not
26 significant ($p > .10$). Overall, affiliative humor resulted in better brand attitudes than the
27 nonhumorous comment. As expected, the results confirmed that affiliative humor constituted
28 a benign violation, which translated into high levels of amusement and revealed no difference
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3 regarding ulterior motives. Lastly, for Model C, which compared the nonhumorous condition
4 (coded 0) with aggressive humor (coded 1), the results showed that the indirect effect through
5 amusement was not significant ($p > .10$). However, the indirect effect through ulterior motives
6 was significant and favored the nonhumorous condition ($\beta = -.65$, $CI_{95} [-.979, -.376]$), such
7 that the participants inferred more ulterior motives when the brand had used aggressive
8 humor, which ultimately negatively influenced brand attitudes. Overall, aggressive humor did
9 not result in improved brand attitudes in comparison with the nonhumorous condition because
10 this type of humor constitutes a malign violation, which is characterized by a higher number
11 of perceptions of ulterior motives without generating more amusement than a nonhumorous
12 condition. We replicated all our analyses (see Web Appendix F for the detailed results)
13 without the covariates and confirmed that our results remained virtually similar.
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29 ***Discussion for Study 1***

30 Study 1 provides two main conclusions. First, it highlights that using humorous brand-
31 to-brand dialogues based on affiliative humor results in improved brand attitudes and
32 purchase intentions (compared to aggressive humor). Second, we use the benign violation
33 theory (McGraw and Warren 2010) to explain the superiority of affiliative humor. Affiliative
34 humor constitutes a benign violation that is associated with high levels of amusement and a
35 low number of perceptions of ulterior motives, both of which contribute to improving brand
36 attitudes and purchase intentions. Conversely, aggressive humor constitutes a malign
37 violation, which leads customers to infer that the brand has ulterior motives, which negatively
38 influence brand attitudes and purchase intentions. Moreover, aggressive humor is not
39 sufficiently benign to generate amusement (no difference with the nonhumorous condition).
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Study 2

Pretest, Procedure, and Measures

Study 2 was designed to test the moderating role of the competitive context (H_4). We pretested four humorous brand-to-brand interactions with 145 U.S. participants (58.6% female, 41.4% male; $M_{\text{age}} = 36.96$ years, $SD = 12.47$) who were recruited on Prolific and randomly assigned to four conditions. The pretest presented a fictional company called TropicDrink, which sold energy drinks and had written an X post, accompanied by a photograph of boxes (see Web Appendix G), and asked its customers the question: “Where should I deliver this big package?” Subsequently, we showed another brand called Cyan, which had directly responded to the post. Eventually, we retained the stimuli “I always knew that you were well-endowed” for our affiliative humor condition ($M_{\text{affiliative}} = 4.92 > M_{\text{aggressive}} = 2.66, p < .01$) and “Probably to someone who has lost the sense of taste!” for our aggressive humor manipulation ($M_{\text{aggressive}} = 5.15 > M_{\text{affiliative}} = 3.24, p < .01$) as they had the highest scores on the respective scales.

Study 2 is a 2 (humor type: affiliative humor versus aggressive humor) \times 2 (competitive context: competing brands versus noncompeting brands) between-subjects experiment. We used the pretested stimuli to manipulate the humor type. Subsequently, we manipulated the competitive context (see Web Appendix G). In the competing brand condition, TropicDrink and Cyan both sold energy drinks. In the noncompeting brand condition, TropicDrink sold energy drinks, while Cyan sold hygiene products. Using Prolific, we recruited 269 U.S. participants, and we automatically removed eight of the participants because they had failed our attention checks, which resulted in a final sample of 261 participants (49.4% female, 49.4% male, and 1.1% nonbinary; $M_{\text{age}} = 41.69$ years, $SD = 13.11$). The participants were randomly assigned to the four conditions. Regarding humor type manipulation, the participants scored significantly higher on the affiliative humor scale in the affiliative humor condition ($M_{\text{affiliative}} = 5.09 > M_{\text{aggressive}} = 2.53, F(1, 259) = 125.82, p <$

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3 .01). The participants in the aggressive humor condition scored significantly higher on the
4 aggressive humor scale ($M_{\text{aggressive}} = 5.05 > M_{\text{affiliative}} = 3.11$, $F(1, 259) = 200.43$, $p < .01$).
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6 Additionally, we created a scale to check for our manipulation of the competitive context
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8 (four items including “The two companies are direct competitors,” $\alpha = .99$) based on the
9
10 definition of “competitive context” from previous research (e.g., Aaker 2012; Clark and
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12 Montgomery 1999). The participants reported that the two companies had been perceived
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14 more as competitive brands in the competing brands condition ($M_{\text{competitors}} = 6.54 >$
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16 $M_{\text{noncompetitors}} = 1.43$, $F(1, 259) = 2,532.06$, $p < .01$), as expected. Overall, our manipulations
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18 were successful.
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24 After reading the scenario, the participants answered questions relating to brand
25 attitudes as the dependent variable, our two mediators (ulterior motives and amusement), and
26 the control variables (i.e., sense of humor, X usage intensity, age, and gender).⁸ We also
27 included a measure for surprise (three items including “The tweet content surprised me,” $\alpha =$
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29 $.93$; Weinstein, Hodgins, and Ostvik-White 2011) to rule out its mechanism (see Web
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31 Appendix B for detailed scales and psychometric properties). The nine-factor model (i.e.,
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33 affiliative humor, aggressive humor, perceived competitiveness, brand attitudes, ulterior
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35 motives, amusement, surprise, sense of humor, and X usage intensity) with 29 items yielded a
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37 satisfactory fit ($CFI = .96$, $TLI = .96$, $RMSEA = .06$, $\chi^2 = 847.53$, $df = 424$, $p < .01$), and both
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39 convergent and discriminant validities were confirmed (Fornell and Larcker 1981). Our
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41 participants also perceived the scenario as realistic ($M = 5.19$ over 7).
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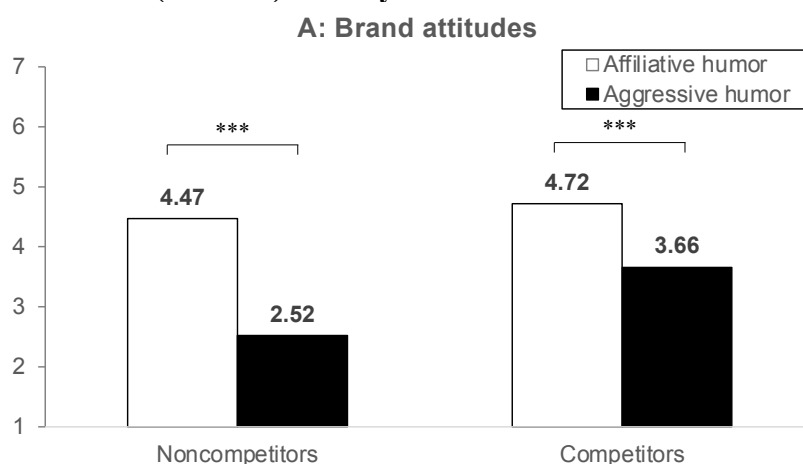
50 ***Results for Study 2***

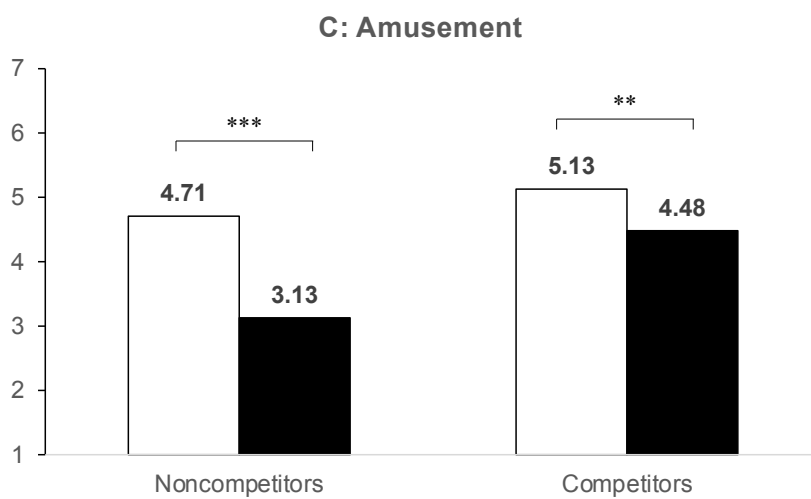
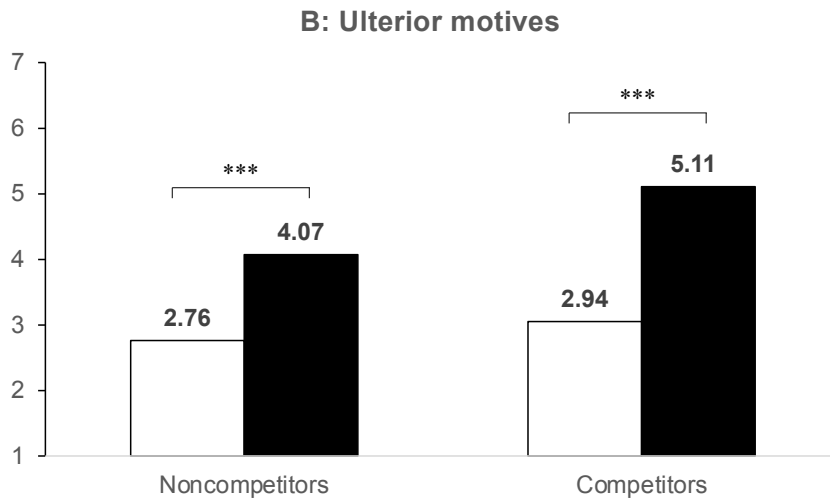
51 The results from a MANCOVA showed that the interaction term between humor type
52 and the competitive context for brand attitudes was significant ($F(1, 253) = 4.43$, $p < .05$, ω_p^2
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59 ⁸ We confirmed that neither sense of humor ($p = .11$), X usage intensity ($p = .76$), age ($p = .12$), nor gender ($p =$
60 $.78$) differed between our four experimental conditions.

= .02; Figure 4, Panel A). Contrast analyses revealed that brand attitudes were always improved when the brand had used affiliative humor, and the difference with aggressive humor was smaller when the two brands were competitors ($M_{\text{affiliative}} = 4.70 > M_{\text{aggressive}} = 3.73, p < .01$) than when they were not ($M_{\text{affiliative}} = 4.48 > M_{\text{aggressive}} = 2.52, p < .01$), as suggested in H₄. Second, the interaction effect between humor type and the competitive context for ulterior motives was also significant ($F(1, 253) = 5.21, p < .05, \omega_p^2 = .02$; Figure 4, Panel B). Contrast analyses revealed that the number of perceptions of ulterior motives was always higher when the brand had used aggressive humor, and the difference with affiliative humor was larger when the brands were competitors ($M_{\text{aggressive}} = 5.11 > M_{\text{affiliative}} = 2.94, p < .01$) than when they were not ($M_{\text{aggressive}} = 4.07 > M_{\text{affiliative}} = 2.76, p < .01$), as suggested in H_{4a}. Lastly, for amusement, the interaction effect was also significant ($F(1, 253) = 3.88, p < .05, \omega_p^2 = .02$; Figure 4, Panel C). Affiliative humor always generated the highest levels of amusement, and the difference with aggressive humor was smaller when the two brands were competitors ($M_{\text{affiliative}} = 5.13 > M_{\text{aggressive}} = 4.48, p < .05$) than when they were not ($M_{\text{affiliative}} = 4.71 > M_{\text{aggressive}} = 3.13, p < .01$), as suggested in H_{4b}. Web Appendix H provides the detailed results with and without our covariates.

Figure 4. Visual representation of the interaction plot between humor type and competitiveness for brand attitudes (Panel A), ulterior motives (Panel B), and amusement (Panel C) – Study 2





Note: *** $p < .01$; ** $p < .05$; * $p < .10$; n.s. = not significant

To formally test H_{4a-b} , we used the PROCESS macro (Model 7; 5,000 resamples) with humor type as the independent variable (0 = aggressive humor; 1 = affiliative humor), the competitive context as the moderator (0 = noncompetitors; 1 = competitors), ulterior motives and amusement as parallel mediators, and brand attitudes as the dependent variable (see Table 1 for the detailed results and Web Appendix I for the results without covariates). First, the index of moderated mediation for the indirect sequence through ulterior motives was positive and significant ($\beta = .12$, $CI_{95} [.011, .273]$). Specifically, brands always appeared to have more ulterior motives when they had used aggressive humor, but the difference was more pronounced when they had targeted a competing brand ($\beta = .33$, $CI_{95} [.112, .566]$) rather than

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3 a noncompeting brand ($\beta = .21$, $CI_{95} [.062, .379]$), which was consistent with H_{4a} . Second, the
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5 index of moderated mediation for the indirect sequence through amusement was negative and
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7 significant ($\beta = -.55$, $CI_{95} [-1.099, -.001]$). Specifically, the sequence always favored
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9 affiliative humor, but the difference between the two humor types was less pronounced when
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11 the two brands were competitors ($\beta = .45$, $CI_{95} [.099, .813]$) rather than when they were not (β
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13 = 1.00, $CI_{95} [.558, 1.474]$), which was consistent with H_{4b} .⁹
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18 ***Discussion for Study 2***

19 Study 2 shows that, although affiliative humor always maintains its superiority
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21 regardless of the competitive context, aggressive humor partially compensates for its
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23 weaknesses when brands target competing brands. Aggressive humor creates ambivalent
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25 customer reactions when brands target competing brands. Negatively, using aggressive humor
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27 against a competitor constitutes a more significant malign violation, which leads customers to
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29 suspect that brands have ulterior motives. When brands belittle and denigrate their
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31 competitors using aggressive humor, they are publicly engaging in a malign demonstration of
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33 rivalry, which makes the brands appear as though they are clearly trying to take advantage of
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35 the situation (Berendt, Urich, and Thompson 2018; Kowalski 2000). However, positively,
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37 customers simultaneously perceive this violation as more benign, which generates increased
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39 amusement because the customers recognize that this demonstration of rivalry is just brands
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41 playing the competitive game.
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55 ⁹ We performed additional analyses by introducing surprise as a parallel mediator to ulterior motives and
56 amusement to rule out the incongruity theory. The incongruity theory is arguably the most popular humor theory
57 (Warren, Barsky, and McGraw 2022). In brief, the theory introduces the important role of surprise in
58 understanding why something is funny (Graham, Papa, and Brooks 1992). The results showed that surprise had a
59 direct negative effect on brand attitudes ($\beta = -.16$, $p < .01$), contradicting the incongruity theory, which
60 postulates the positive effect of surprise. Moreover, following the introduction of surprise as a mediator, the
indirect effects of ulterior motives and amusement remained unchanged.

Table 1. Detailed results for Study 2

Variables	Ulterior motives		Amusement		Brand attitudes	
	Coeff.	t	Coeff.	t	Coeff.	t
Humor type (0 = aggressive; 1 = affiliative)	-1.28	-5.37***	1.45	5.06***	.44	2.67***
Competitive context (0 = noncompetitors; 1 = competitors)	1.00	4.16***	1.31	4.51***	–	–
Humor × competitive context	-.77	-2.28**	-.71	-.80**	–	–
Ulterior motives	–	–	–	–	-.16	-3.12***
Amusement	–	–	–	–	.68	16.20***
<i>Control variables</i>						
Gender	-.18	-1.14 ^{n.s.}	.01	.06 ^{n.s.}	-.11	-.82 ^{n.s.}
Age	.02	2.59**	-.03	-3.80***	-.00	-.84 ^{n.s.}
Sense of humor	-.20	-2.53**	.66	6.79***	.05	.71 ^{n.s.}
X intensity usage	.05	1.31 ^{n.s.}	-.03	-.60 ^{n.s.}	.03	.78 ^{n.s.}
R ²	.36		.31		.67	
ΔR ²	.01		.01			
	[ΔF(1, 253) = 5.21, p < .05]		[ΔF(1, 253) = 3.88, p < .05]			
Conditional effects of humor type at values of the moderator:						
	<i>Indirect effect</i>	95% confidence interval				
		Bootstrapped LLCI	Bootstrapped ULCI			
<i>Mediating variable: Ulterior motives</i>						
Noncompetitors	.21	.076		.399		
Competitors	.34	.134		.570		
Index of moderated mediation	.13	.011		.276		
<i>Mediating variable: Amusement</i>						
Noncompetitors	.99	.542		1.458		
Competitors	.45	.089		.814		
Index of moderated mediation	-.55	-1.111		-.002		

Note: *** $p < .01$; ** $p < .05$; * $p < .10$; n.s. = not significant

Study 3A

Procedures and Measures

Study 3A is a preregistered study¹⁰ that was designed to test the moderating role of brand positioning. The study is a 3 (humor type: affiliative humor, aggressive humor, nonhumorous comment) \times 2 (brand positioning: underdog versus top dog) between-subjects experiment. Using Prolific, we recruited 780 U.S. participants, and we automatically removed 19 of these participants because they had failed our attention checks, which resulted in a final sample of 761 participants (53.1% female, 45.5% male, 1.3% nonbinary, and 0.1% preferred not to say; $M_{\text{age}} = 40.45$ years, $SD = 12.84$). The participants were randomly assigned to the six conditions. We used similar stimuli and scenarios as for Study 1 (see Web Appendix A). The participants in the affiliative humor condition scored higher on the affiliative humor scale than the participants in the other two conditions ($M_{\text{affiliative}} = 4.10 > M_{\text{aggressive}} = 3.27 \approx M_{\text{nonhumorous}} = 3.20$, $F(2, 758) = 22.64$, $p < .01$). The participants in the aggressive humor condition scored higher on the aggressive humor scale than the other two conditions ($M_{\text{aggressive}} = 4.60 > M_{\text{affiliative}} = 3.58 \approx M_{\text{nonhumorous}} = 3.82$, $F(2, 758) = 19.75$, $p < .01$). Subsequently, we manipulated brand positioning by using the stimuli from Jin and Huang's (2018; see Web Appendix J) study, and we checked our manipulation using a one-item differential scale (Jin and Huang 2018) and asked whether the perpetrating brand was an underdog (anchored as 1) or a top dog (anchored as 7). The check was significant and in the expected direction ($M_{\text{topdog}} = 5.92 > M_{\text{underdog}} = 2.72$, $F(1, 759) = 1,099.66$, $p < .01$). Overall, our manipulations were successful.

In this study, we measured purchase intentions as the dependent variable; ulterior motives and amusement as the mediators (we also considered the mediating role of surprise to

¹⁰ Anonymized link to the preregistration:
https://osf.io/ajw46/?view_only=441e4abce52344db92f7f128328260db

rule out its mechanism); and sense of humor, X usage intensity, age, and gender as the control variables.¹¹ We used the same scales as in previous studies (see items in Web Appendix B). The measurement model with eight factors (i.e., affiliative humor, aggressive humor, purchase intentions, ulterior motives, amusement, surprise, sense of humor, and X usage intensity) and 26 items yielded a satisfactory fit (CFI = .98, TLI = .98, RMSEA = .04, $\chi^2 = 654.20$, $df = 268$, $p < .01$). Moreover, all the scales respected the established psychometric standards regarding convergent and discriminant validities (Fornell and Larcker 1981). The participants perceived the scenario as realistic ($M = 5.36$ over 7).

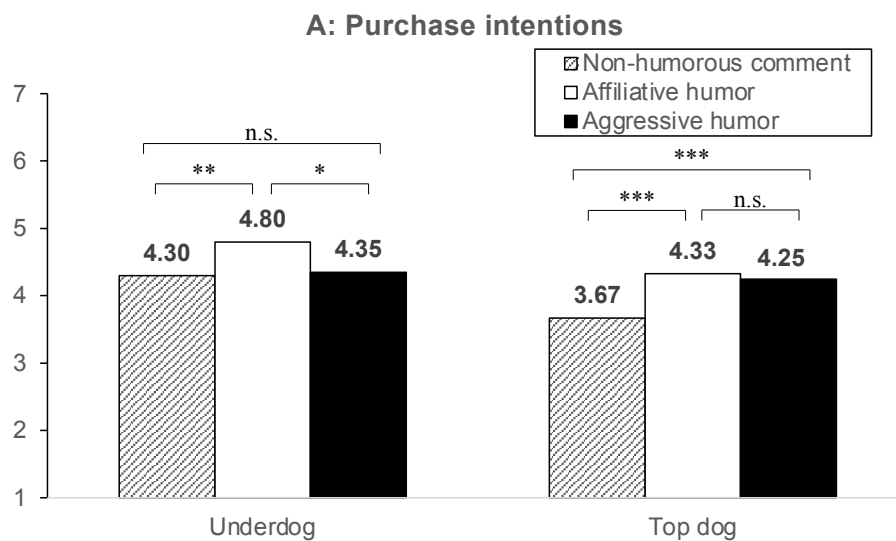
Results for Study 3A

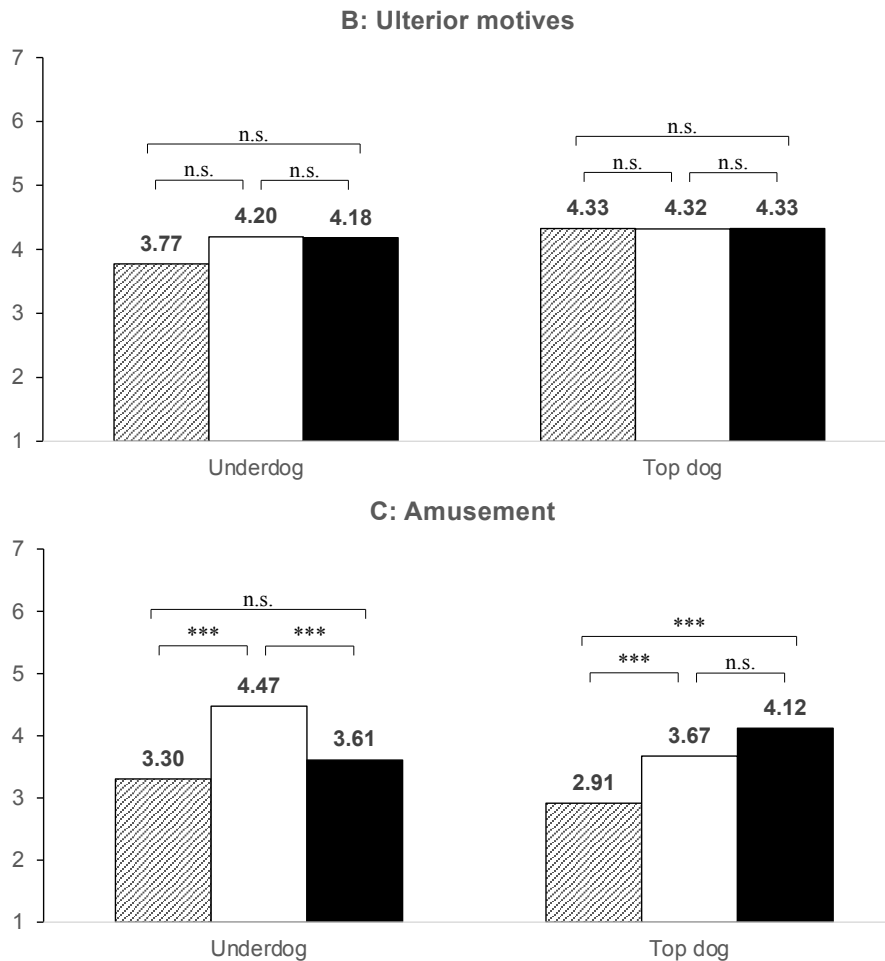
The results from a MANCOVA first showed that the interaction term between humor type and brand positioning for purchase intentions was marginally significant ($F(2, 751) = 2.42$, $p < .10$, $\omega_p^2 = .01$; Figure 5, Panel A). When the brand was an underdog, affiliative humor resulted in increased purchase intentions compared to aggressive humor ($M_{\text{affiliative}} = 4.80 > M_{\text{aggressive}} = 4.35$, $p = .08$) or the nonhumorous condition ($M_{\text{affiliative}} = 4.80 > M_{\text{nonhumorous}} = 4.30$, $p < .05$). We observed no difference between aggressive humor and the nonhumorous condition ($M_{\text{aggressive}} = 4.35 \approx M_{\text{nonhumorous}} = 4.30$, $p > .10$). However, when the brand was a top dog, there was no statistical difference in purchase intentions between affiliative humor and aggressive humor ($M_{\text{affiliative}} = 4.33 \approx M_{\text{aggressive}} = 4.25$, $p > .10$), which did not support H₅. Moreover, both humor types were more efficient than the nonhumorous condition ($M_{\text{nonhumorous}} = 3.67$, all p 's $< .01$). Second, both the direct effect of humor type ($F(2, 751) = 1.41$, $p > .10$) and the interaction term between humor type and brand positioning ($F(2, 751) = 1.20$, $p > .10$) for ulterior motives were not significant (Figure 5, Panel B), which did not support H_{5a}. We only observed the significant direct effect of brand positioning on ulterior

¹¹ We confirmed that neither sense of humor ($p = .71$), X usage intensity ($p = .94$), age ($p = .30$), nor gender ($p = .41$) differed between our experimental conditions.

motives ($F(1, 751) = 5.33, p < .05$), with top dog brands being perceived as having more
 ulterior motives than underdog brands ($M_{\text{topdog}} = 4.33 > M_{\text{underdog}} = 4.05, p < .05$). Third, the
 interaction term between humor type and brand positioning for amusement was significant
 ($F(2, 751) = 9.15, p < .01, \omega_p^2 = .02$; Figure 5, Panel C). When the brand was an underdog,
 affiliative humor generated more amusement than aggressive humor ($M_{\text{affiliative}} = 4.47 >$
 $M_{\text{aggressive}} = 3.61, p < .01$) or a nonhumorous comment ($M_{\text{affiliative}} = 4.47 > M_{\text{nonhumorous}} = 3.30,$
 $p < .01$). However, for top dog brands, affiliative humor did not generate more amusement
 than aggressive humor ($M_{\text{affiliative}} = 3.67 \approx M_{\text{aggressive}} = 4.12, p > .10$), which supported H_{5b} .
 Moreover, both humor types generated more amusement than the nonhumorous condition
 ($M_{\text{nonhumorous}} = 2.91, \text{all } p\text{'s} < .01$). Web Appendix K provides the detailed results with and
 without our covariates.

Figure 5. Visual representation of the interaction plot between humor type and brand positioning for purchase intentions (Panel A), ulterior motives (Panel B), and amusement (Panel C) – Study 3A





Note: *** $p < .01$; ** $p < .05$; * $p < .10$; n.s. = not significant.

To formally test H_{5a-b} , we used the PROCESS macro (Model 7; 5,000 resamples) with humor type as the independent variable, brand positioning as the moderator (0 = underdog; 1 = top dog), ulterior motives and amusement as the parallel mediators, and purchase intentions as the dependent variable. Given that our independent variable employed three levels (affiliative humor, aggressive humor, and a nonhumorous condition), we ran moderated mediation models by employing a multicategory analysis with three models, as we did in Study 1. For Model A, which compared aggressive humor (coded 0) with affiliative humor (coded 1), the results showed that the indirect effect through ulterior motives was not significant ($p > .10$), which did not support H_{5a} . However, the indirect effect through amusement was significant and negative ($\beta = -.45$, $CI_{95} [-.675, -.238]$). When the brand was

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3 an underdog, the indirect effect of humor type on purchase intentions through amusement was
4 positive ($\beta = .28$, $CI_{95} [.126, .443]$), which suggested that affiliative humor was funnier than
5 aggressive humor and increased purchase intentions. Conversely, when the brand was a top
6 dog, the same indirect effect through amusement became negative ($\beta = -.16$, $CI_{95} [-.313, -$
7 $.022]$), which suggested that aggressive humor had a more significant effect on purchase
8 intentions than affiliative humor through the mediating role of amusement. This finding
9 confirmed H_{5b} . For Model B, which compared the nonhumorous condition (coded 0) with
10 affiliative humor (coded 1), the results showed that the indirect effect through ulterior motives
11 was not significant ($p > .10$), which suggested no difference in ulterior motives between
12 affiliative humor and the nonhumorous condition regardless of brand positioning. Similarly,
13 the moderated mediation through amusement was also not significant ($p > .10$). Affiliative
14 humor always generated more amusement than the nonhumorous condition regardless of
15 brand positioning. Lastly, for Model C, which compared the nonhumorous condition (coded
16 0) with aggressive humor (coded 1), the results showed that the indirect effect through ulterior
17 motives was not significant ($p > .10$). Aggressive humor and the nonhumorous comment
18 generated a similar number of perceptions of ulterior motives regardless of brand positioning.
19 Moreover, the indirect effect through amusement was positive and significant ($\beta = .29$, CI_{95}
20 $[.076, .533]$). When the brand was an underdog, the difference in amusement between
21 aggressive humor and the nonhumorous condition was not significant ($p > .10$). However,
22 when the brand was a top dog, aggressive humor generated more amusement than the
23 nonhumorous condition ($\beta = .42$, $CI_{95} [.258, .595]$).¹²

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¹² For Study 3A, we included surprise as a parallel mediator to ulterior motives and amusement (the rest of the model was unchanged). Following the inclusion of surprise, the interaction terms between humor type and brand positioning for both ulterior motives and amusement remained similar. Moreover, the index of moderated mediation for the indirect path through surprise was not significant for either Model A ($\beta = .00$, $CI_{95} [-.022, .023]$), Model B ($\beta = .00$, $CI_{95} [-.029, .030]$), or Model C ($\beta = .00$, $CI_{95} [-.021, .021]$). It is worth noting that, unlike ulterior motives and amusement, surprise did not have a significant direct effect on purchase intentions ($p = .99$), thereby confirming its inability to capture the mechanism of humor.

Discussion for Study 3A

Study 3A was designed to test whether brands must adapt their sense of humor depending on their brand positioning and whether they are either an underdog or a top dog. Our results recommend that underdog brands continue using affiliative humor, which constitutes a more benign violation than aggressive humor and ultimately translates into more amusement and increased purchase intentions. However, a different logic applies to top dog brands, for which using aggressive humor is as effective as using affiliative humor and more effective than using a nonhumorous response. Thus, top dog brands can still benefit from using aggressive humor. Indeed, our results show that aggressive humor compensates for its inherent weaknesses over affiliative humor by becoming more amusing when used by top dog brands. This result suggests that aggressive humor constitutes a more benign violation than affiliative humor when aggressive humor is used by a top dog brand. This conclusion echoes the findings of previous research that has demonstrated that customers are less offended by a violation if it is committed by top dog brands (Hornsey et al. 2021; Kim and Park 2020). Being a top dog brand represents a contextual factor that ensures that customers consider the violation committed using aggressive humor as more benign and are more amused by the violation than they would be if underdog brands were to commit the violation. In Study 3B, we attempted to replicate this result using real tweets and their objective performance metrics (i.e., likes and retweets).

Study 3B

Data Operationalization

Study 3B used data from real tweets to assess whether the interaction effect between humor types by brand positioning that we observed in Study 3A could hold in real settings. We collected humorous tweets from a French blog called the CM Hall of Fame.¹³ This blog is

¹³ Link to the website: <https://cmhalloffame.fr>

relatively popular in France, and its associated X account has approximately 71,000 followers. The blog posts humorous messages that community managers have tweeted on X. From these posts, we only selected those in which brands had used humor in their brand-to-brand dialogues, which resulted in a final sample of 157 posts. For each post, two trained independent coders indicated the tweet's humor type (either affiliative or aggressive) and the position of the perpetrating brand (underdog versus top dog). The initial intercoder agreement was 92.38%, and they reached a consensus by discussing each disagreement. The coders identified 92 tweets with affiliative humor (58.6%) and 65 tweets with aggressive humor (41.4%). Moreover, they recognized 91 brands as underdogs (58%) and 66 brands as top dogs (42%). For the dependent variables, we collected the number of likes ($M = 20,975.39$, $SD = 101,284.3$) and retweets ($M = 6,851.45$, $SD = 30,297.63$) for each tweet. Lastly, we collected information on the number of followers of the focal brands' X accounts ($M = 1,040,173$, $SD = 2,154,950$), the word count of the posts ($M = 9.66$, $SD = 6.78$), and the posts' age operationalized as the number of months between publication and October 2023 ($M = 92.28$, $SD = 27.17$).

Data Analysis and Results

We modeled the number of likes and retweets for tweet i using the following Equations 1 and 2:

$$(1) \ln(\text{Likes}_i) = \alpha_0 + \alpha_1 \text{Humor}_i + \alpha_2 \text{Position}_i + \alpha_3 \text{Humor}_i \times \text{Position}_i + \sum_k \lambda_k \text{Control}_i + e_1$$

$$(2) \ln(\text{Retweets}_i) = \beta_0 + \beta_1 \text{Humor}_i + \beta_2 \text{Position}_i + \beta_3 \text{Humor}_i \times \text{Position}_i + \sum_k \eta_k \text{Control}_i + e_2$$

where "Humor" is the humor type (0 = aggressive humor; 1 = affiliative humor) and "Position" is the brand positioning (0 = underdog; 1 = top dog). As the controls, we included the number of followers ("Followers"), the length of the tweet ("Words"), and the age of the tweet ("Age") and its squared term ("Age²"). We used the logarithms of the dependent

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3 variables and the continuous independent variables to account for potential nonlinear
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5 relationships between these variables and reduce inference problems associated with
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7 heteroskedasticity and outliers¹⁴ (Wooldridge 2020). Given that the error terms in both
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9 equations (“ e_1 ” and “ e_2 ”) were likely to be correlated, we estimated Equations 1 and 2
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11 simultaneously as a system of equations. Lastly, we reported Huber-White robust standard
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13 errors.
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17 Table 2 provides the detailed results of the analysis. We focused on Model 3, which
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19 had the highest goodness of fit. The results for the number of likes showed that the interaction
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21 term between humor type and brand positioning was negative and significant ($\alpha_3 = -1.82, p <$
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23 $.05$). When the brand was an underdog, there was no difference between the two humor types
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25 regarding the number of likes ($\alpha_1 = .26, p > .10$). However, when the brand was a top dog,
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27 aggressive humor generated more likes than affiliative humor ($\alpha_1 + \alpha_3 = -1.57, p < .05$). We
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29 reached similar conclusions regarding the number of retweets. The interaction between humor
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31 types and brand positioning was negative and significant ($\beta_3 = -2.00, p < .05$). We observed
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33 no difference in retweets between affiliative humor and aggressive humor for underdog
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35 brands ($\beta_1 = .31, p > .10$). However, when the brand was a top dog, aggressive humor
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37 generated more retweets than affiliative humor ($\beta_1 + \beta_3 = -1.69, p < .05$).
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58 ¹⁴ We decided to use the logarithm of the dependent variables (i.e., likes and retweets) and the continuous
59 independent variables (i.e., number of followers, posts’ word count, and posts’ age) after considering the
60 histograms of the dependent variables (see Web Appendix L) and their scatter plots with the independent
variables (Web Appendix M).

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Table 2. Detailed results for Study 3B

	Number of likes			Number of retweets		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Humor type (0 = aggressive; 1 = affiliative)	.65 ^{n.s.}	.50 ^{n.s.}	.26 ^{n.s.}	.55 ^{n.s.}	.50 ^{n.s.}	.31 ^{n.s.}
Brand positioning (0 = underdog; 1 = top dog)	3.03 ^{***}	.84 ^{n.s.}	.93 ^{n.s.}	2.67 ^{***}	1.12 ^{n.s.}	1.19 ^{n.s.}
Humor type × brand position	-4.11 ^{***}	-1.84 [*]	-1.82 ^{**}	-3.52 ^{***}	-2.01 ^{**}	-2.00 ^{**}
ln(number of followers)		.40 ^{***}	.40 ^{***}		.38 ^{***}	.37 ^{***}
ln(word count)		.26 ^{n.s.}	.26 ^{n.s.}		.14 ^{n.s.}	.14 ^{n.s.}
ln(post age)		-4.33 ^{***}	-7.37 ^{***}		-2.82 ^{***}	-5.23 ^{***}
ln(post age) ²			-2.57 ^{***}			-2.03 ^{***}
Log pseudolikelihood	-621.02	-588.34	-536.43			

Note: *** $p < .01$; ** $p < .05$; * $p < .10$; n.s. = not significant.

For Peer Review

Discussion for Study 3B

For underdog brands, affiliative humor does not lead to more likes and retweets than aggressive humor. However, according to Study 3A, affiliative humor leads to increased purchase intentions at the individual customer level. For top dog brands, aggressive humor leads to more likes and retweets than affiliative humor. However, aggressive humor does not lead to increased purchase intentions at the individual customer level (Study 3A). Thus, the results of the two studies combined suggest that underdog brands benefit more from using affiliative humor, while top dog brands benefit more from aggressive humor because aggressive humor generates more engagement and, thus, more social media visibility.

General Discussion

Theoretical Implications

Brands are increasingly engaging in humorous dialogues on social media, and recent studies have only focused on brands using humor with customers (e.g., Batista et al. 2022; Liao, Li, and Filieri 2022). However, the benefits and pitfalls of using humor on social media to interact with other brands and celebrities have been somewhat overlooked (for a recent exception, see Thomas and Fowler 2021). This situation is surprising considering the anecdotal evidence about the popularity of certain humorous brand-to-brand dialogues (see Figure 1). Hence, this research investigates the mechanisms and conditions explaining the benefits and pitfalls of using humor in online brand-to-brand dialogues. By doing so, the research makes three main contributions to theory.

First, this research shows that, all things being equal, humorous brand-to-brand dialogues result in different brand attitudes and purchase intentions depending on whether brands adopt affiliative humor (i.e., laughing *with* the other brand) or aggressive humor (i.e., laughing *at* the other brand). The findings demonstrate that affiliative humor improves brand attitudes and purchase intentions compared to aggressive humor, which is consistent with the

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3 findings of previous studies in psychology (e.g., Plessen et al. 2020; Schneider, Voracek, and
4 Tran 2018) and marketing (e.g., Béal and Grégoire 2022). The comparison between the two
5 types of humor expands upon the conclusions of previous studies, which have only focused on
6 the consequences of using aggressive humor in brand-to-brand dialogues (Thomas and Fowler
7 2021). Based on the benign violation theory, our research suggests that affiliative humor
8 constitutes a benign violation (Martin et al. 2003), which leads to amusement while limiting
9 customers' inferences of ulterior motives, thereby ultimately improving brand attitudes and
10 purchase intentions. Conversely, aggressive humor constitutes a malign violation (Cann,
11 Cann, and Jordan 2016; Cann and Matson 2014) and leads customers to suspect ulterior
12 motives without amusement, thereby negatively influencing their attitudes and purchase
13 intentions. In that regard, our research contributes to the literature by identifying ulterior
14 motives as an interesting extension of the benign violation theory to better explain when a
15 violation is perceived as malign.

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Second, we contribute to the literature on humorous brand-to-brand dialogues by identifying two brand-related variables that influence when customers perceive the two aforementioned humor types as either benign or malign violations. We build on the benign violation theory (McGraw and Warren 2010; Warren, Barsky, and McGraw 2018) to understand how these variables affect evaluations of the violation as either benign or malign. The first variable is the brand's competitive context, distinguishing situations where brands use humor to target a competitor (e.g., Wendy's versus McDonald's) as opposed to a noncompetitor (e.g., Wendy's versus Bank of America). Study 2 reveals that, while affiliative humor remains unaffected by competitive context and consistently maintains its effectiveness, aggressive humor partially compensates for its shortcomings when brands target competitors, which is observed based on the difference in brand attitudes. Ambivalent effects on our two mediators explain this partial reduction (Hemenover and Schimmack 2007). Negatively, using

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3 aggressive humor against competitors intensifies customers' perceptions of malign violations
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5 as customers suspect ulterior motives in the act of using humor to ridicule and denigrate a
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7 competitor. Positively, using aggressive humor can simultaneously generate more amusement,
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9 which suggests that aggressive humor can also appear to be a more benign violation when
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11 brands target competitors because customers consider that, in the end, this humorous
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13 demonstration of rivalry is just "part of the competitive game" (Berendt, Uhrich, and
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15 Thompson 2018). These two findings on ulterior motives and amusement explain why
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17 aggressive humor results in improved brand attitudes when brands target competitors (rather
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19 than noncompetitors), although aggressive humor is not as effective as affiliative humor.
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24 Third, we identify brand positioning as our second brand-related variable. The results
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26 from Studies 3A and 3B show that brands must adapt their sense of humor depending on
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28 whether they are underdogs (i.e., small-sized and powerless entities) or top dogs (i.e., large-
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30 sized and powerful entities). Underdog brands should continue using affiliative humor, which
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32 does not result in more likes and retweets than aggressive humor (Study 3B) but which does
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34 increase purchase intentions (Study 3A). Conversely, aggressive humor generates more likes
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36 and retweets for top dog brands (Study 3B) without any difference with affiliative humor
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38 regarding purchase intentions (Study 3A). Combining these two studies, we observe that top
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40 dog brands benefit more from aggressive humor owing to aggressive humor's resulting
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42 increased engagement and social media visibility. This observation is explained by the fact
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44 that top dog brands are shielded from norm violations and misbehavior (Hornsey et al. 2021;
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46 Kim, Park, and Lee 2018; Kim and Park 2020), so customers interpret top dog brands' use of
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48 aggressive humor as a more benign violation, which generates more amusement than
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50 affiliative humor.
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Managerial Implications

Ninety-one percent of customers expect brands to be funny on social media, but 95% of business leaders are afraid of using humor in their online strategies (Oracle Fusion Cloud Customer Experience 2022). The main reason for this fear is that humor is a double-edged sword, and its misuse can be detrimental to brand image and reputation (Meyer 2000; Warren and McGraw 2016). Although research has informed scholars of the benefits and pitfalls of using humor in brand-to-customer dialogues (e.g., Béal, Grégoire, and Carrillat 2023; Liao, Li, and Filieri 2022), this research has provided limited insights into using humor in brand-to-brand dialogues.

What humor type must brands use in brand-to-brand dialogues? All things being equal, our results should encourage managers to favor affiliative humor (laughing with the other brand) over aggressive humor (laughing at the other brand). Using aggressive humor can lead customers to suspect that the brand has ulterior motives, which is detrimental to brand attitude and discourages customers from purchasing the brand's products. At the same time, aggressive humor is not a sufficiently benign and light form of humor to generate amusement, which is a necessity when it comes to improving customers' attitudes and purchase intentions.

Should brands target competing brands or noncompeting brands when engaging in humorous dialogues? Our results provide two answers to this question. First, brands benefit more from customer approval when they target their direct competitors rather than noncompeting brands. Second, although affiliative humor continues to be the best practice, whether brands are direct competitors or not, our findings inform managers that aggressive humor represents a more acceptable way of targeting a competing brand.

Should brands adapt their sense of humor depending on whether they are a top dog or an underdog brand? Focusing on online dialogues between competing brands, our research demonstrates that brands must adapt their sense of humor depending on their market

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3 positions. When the perpetrating brand is an underdog (characterized by a smaller size and
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5 powerless position), affiliative humor remains the best practice. Conversely, when the
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7 perpetrating brand is a top dog (characterized by a larger size and powerful position),
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9 aggressive humor results in increased social media visibility (regarding likes and retweets)
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11 without harming customers' purchase intentions, thereby making this humor type more
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13 appropriate for top dog brands.
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16 17 ***Limitations and Avenues for Further Research***

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19 This research has several limitations that could encourage continued research. First,
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21 we solely focused on two types of humor (i.e., affiliative and aggressive humor) because they
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23 are the most common types of humor on social media (Béal and Grégoire 2022). However,
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25 Martin et al.'s (2003) classification demonstrated that there are two other self-oriented forms
26
27 of humor: self-enhancing humor and self-defeating humor. Future research could investigate
28
29 the consequences of these types of humor for humorous brand-to-brand dialogues. Second,
30
31 our research only focused on samples of American participants (for our experiments) and
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33 French brand-to-brand dialogues (for Study 3B), and individualistic cultures characterize both
34
35 countries. Previous studies have shown that culture significantly affects the production and
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37 consumption of humorous content (Warren, Barsky, and McGraw 2018). Future research
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39 could investigate how customers perceive humorous brand-to-brand interactions in
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41 collectivistic cultures (e.g., China). Third, we considered two main moderators in this
42
43 research: the competitive context and brand positioning. However, many other contextual
44
45 variables can affect humor, and future research could enhance humor theory and our insight
46
47 into the process. Specifically, the benign violation theory offers a relevant framework to
48
49 understand what makes something funny and what makes something unfunny depending on
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51 whether the violation is perceived as benign or malign. Including competitive context and
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53 brand positioning provided a better understanding of what makes brands' use of humor benign
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3 or malign. Future research could enhance our understanding of this process by exploring
4 individual differences (e.g., sense of humor and cognitive styles; Svebak 1996), contextual
5 factors (e.g., type of consumption goal; Warren, Barsky, and McGraw 2018), social context
6 (e.g., customer–brand identification and sense of belonging; Phillips-Melancon and Dalakas
7 2014), power distance (Hu et al. 2024), or cultural factors (Cao et al. 2023). Finally,
8 companies’ use of humor on social media can also open avenues for future research for other
9 purposes. For instance, the use of humor in brand image co-creation activities might boost
10 customer engagement. Humor might represent a hedonic reason for customers to engage in
11 branded content and brand image co-creation activities (Dretsch, Kirmani, and Lundberg
12 2024).

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WEB APPENDICES**HUMOR IN ONLINE BRAND-TO-BRAND DIALOGUES: UNVEILING THE DIFFERENCE BETWEEN TOP DOG AND UNDERDOG BRANDS**

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These materials have been supplied by the authors to aid in the understanding of their paper. The AMA is sharing these materials at the request of the authors.

Web Appendix A: Materials and Stimuli for Study 1 and 3A

Main scenario	<p>Chicky is an American fast-food chain. Recently, the company posted the following message on Twitter to celebrate its 80th anniversary since the opening of its first restaurant:</p>  <p>The screenshot shows a tweet from @Chicky dated October 10, 2022. The text of the tweet reads: "Today, it's been 80 years since we serve our chicken burgers to our customers #HappyBirthdayToUs". The profile picture of @Chicky is a cartoon chicken head.</p>
MANIP 1: Affiliative humor	<p>Then, you realize that another company called Burger's directly answered the first company's Twitter post:</p>  <p>The screenshot shows a reply tweet from @Burgers dated October 10, 2022, replying to @Chicky. The text of the reply reads: "We don't have any presents but having us as your competitor is a gift in itself 😊". The profile picture of @Burgers is a burger icon. The tweet shows 30 retweets and 27 likes.</p>
MANIP 1: Aggressive humor	<p>Then, you realize that another company called Burger's directly answered the first company's Twitter post:</p>  <p>The screenshot shows a reply tweet from @Burgers dated October 10, 2022, replying to @Chicky. The text of the reply reads: "More candles on your cake than customers in your restaurants...". The profile picture of @Burgers is a burger icon. The tweet shows 30 retweets and 27 likes.</p>

MANIP 1: Nonhumorous condition



Burger's
@Burgers

Follow



Replying to @Chicky

Time is running out so fast

8:21PM – October 10, 2022

30 Retweets **27** Likes

2

30

27

For Peer Review

Web Appendix B: Detailed Scales and Psychometric Properties

Variables	Factors loadings		
	Study 1	Study 2	Study 3A
Affiliative humor (Béal and Grégoire 2022)			
AVE	.731	.731	.780
CR	.915	.915	.934
α	.925	.922	.935
The company [A] responded to laugh with the company [B]	.777	.859	.862
The company [A] responded to amuse the company [B]	.872	.889	.947
The company [A] is using humor to reduce tension	.805	.770	.859
The company [A] is using a balanced form of humor	.954	.895	.862
Aggressive humor (Béal and Grégoire 2022)			
AVE	.828	.811	.848
CR	.935	.927	.944
α	.930	.923	.942
The company [A] is using an offensive and hurtful form of humor	.842	.822	.858
The company [A] is using humor to ridicule the company [B]	.935	.932	.955
The company [A] is using humor to criticize the company [B]	.949	.942	.947
Brand attitudes (Park et al. 2010)			
AVE	.932	.938	
CR	.986	.987	
α	.985	.987	
To what extent the joke made [Company A] seem:			N/A
Unappealing (1) / Appealing (7)	.955	.963	
Bad (1) / Good (7)	.972	.961	
Unpleasant (1) / Pleasant (7)	.974	.965	
Unfavorable (1) / Favorable (7)	.970	.981	
Unlikable (1) / Likable (7)	.955	.972	

Variables	Factors loadings		
	Study 1	Study 2	Study 3A
Ulterior motives (Joireman et al. 2013)			
AVE	.667	.568	.720
CR	.887	.835	.911
α	.912	.870	.924
[Company A] intended to take advantage of the situation	.662	.618	.703
[Company A] intended to take advantage of [Company B]	.775	.577	.810
[Company A] had bad intentions	.951	.917	.929
[Company A] was acting out of selfishness	.851	.846	.932
Amusement (McGraw et al. 2015)			
AVE	.869	.934	.871
CR	.952	.977	.953
α	.951	.976	.959
[Company A]'s response was funny	.970	.985	.954
[Company A]'s response was amusing	.961	.983	.920
[Company A]'s response made me laugh	.862	.931	.925
Purchase intentions (Grewal et al. 1998)			
AVE	.888		.916
CR	.960		.970
α	.958	N/A	.969
I would purchase [Company A]'s products	.973		.970
I would consider buying [Company A]'s products	.955		.961
The probability that I would consider buying [Company A] products is high	.897		.940
Sense of humor (Svebak 1996)			
AVE	.607	.614	.606
CR	.820	.824	.818
α	.801	.820	.805
I easily recognize a hint, such as a wink or a slight change in emphasis, as a mark of humorous intent	.720	.675	.659
It is easy for me to find something comical, witty, or humorous in most situations	.929	.921	.939
I have much cause for amusement during an ordinary day	.664	.733	.708

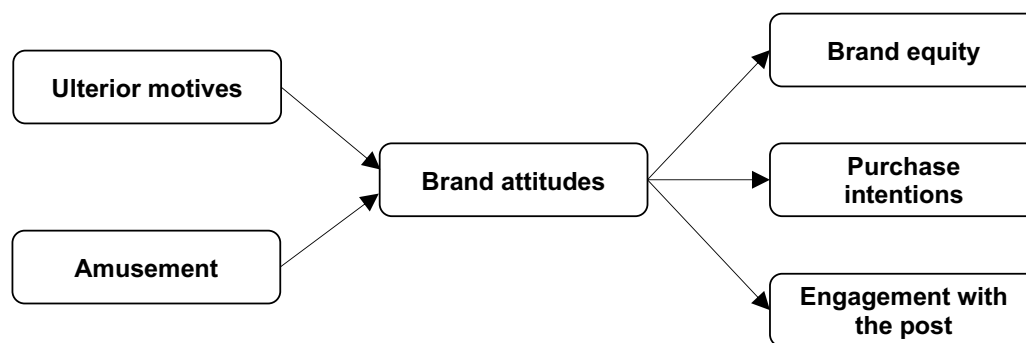
Variables	Factors loadings		
	Study 1	Study 2	Study 3A
X usage intensity (Hübner Barcelos et al. 2018)			
AVE	.892	.847	.875
CR	.961	.942	.954
α	.958	.937	.951
Regarding your Twitter ¹ usage:			
Twitter is part of my everyday activity	.986	.975	.980
Twitter has become part of my daily routine	.994	.995	.993
I feel out of touch when I have not logged onto Twitter for a while	.846	.774	.823
Perceived competitiveness (<i>newly created</i>)			
AVE		.960	
CR		.990	
α	N/A	.990	N/A
The two companies are direct competitors		.980	
The two companies operate on the same market		.964	
The two companies are selling similar products and services		.999	
The two companies fulfill the same customers' needs		.976	
Surprise (Weinstein et al. 2011)			
AVE		.815	.836
CR		.930	.938
α	N/A	.929	.936
The tweet content surprised me		.844	.944
The punch line was unexpected		.933	.964
The tweet content was very unanticipated		.929	.829

¹ By the time of the data collections, X was better known as “Twitter” and we elected to keep this name in our studies and items.

Web Appendix C: Supplementary Analyses Introducing the Mediating Role of Brand Attitudes With Three Dependent Variables (Study 1)

Brand attitudes represent an interesting dependent variable because it is a strong antecedent for a large set of dependent variables including purchase intentions, engagement with the post, and brand equity. Thus, we focus on this dependent variable in the main manuscript (for Studies 1 and 2). Building on Study 1's empirical model, we run additional analyses, including purchase intentions, engagement with the post, and brand equity as dependent variables (see Figure C1 below). In this model, we expect brand attitudes to mediate the effects of the two main processes (i.e., ulterior motives and amusement) on the three dependent variables. We measure purchase intentions with the scale we use in the main manuscript. We measure engagement with the post with a three-item scale, including items such as "I would 'Like' Burger's post" ($\alpha = .91$; Béal et al. 2023), and brand equity with a four-item scale, including items such as "It makes sense to buy Burger's instead of any other brand, even if they are the same" ($\alpha = .97$; Yoo and Donthu 2001).

Figure W1. Elaborated model for Study 1



We test our model using structural equation modeling, considering that the PROCESS macro does not allow us to test three dependent variables simultaneously. We follow the two-step approach recommended by Anderson and Gerbing (1988), who suggest first building a measurement model to test the psychometric properties of all the scales before testing the hypotheses with a structural model. The measurement model, including ten factors (i.e., affiliative humor, aggressive humor, ulterior motives, amusement, brand attitudes, sense of

humor, X usage intensity, purchase intentions, engagement with the post, and brand equity), and 35 items yielded a satisfactory fit (CFI = .95, TLI = .94, RMSEA = .07, $\chi^2 = 954.11$, $df = 512$, $p < .01$). Moreover, we assessed both convergent and discriminant validities (Fornell and Larcker 1981). Subsequently, the structural model yielded a satisfactory fit (CFI = .94, TLI = .93, RMSEA = .07, $\chi^2 = 788.21$, $df = 384$, $p < .01$). The results show that ulterior motives exert a significant and negative effect on brand attitudes ($\beta = -.62$, $p < .01$), while amusement exerts a significant and positive effect on brand attitudes ($\beta = .44$, $p < .01$). Secondly, we found that brand attitudes have a significant and positive effect on purchase intentions ($\beta = .50$, $p < .01$), engagement with the post ($\beta = .40$, $p < .01$), and brand equity ($\beta = .70$, $p < .01$). We use Sobel tests to test for the significance of the indirect mediating paths based on structural equation modeling (Sobel 1982). We report detailed results for all direct and indirect paths in the tables W1 and W2, respectively.

Table W1. Detailed results of the direct paths

Variables	Brand attitudes		Purchase intentions		Engagement with the post		Brand equity	
	β	<i>p</i> -value	β	<i>p</i> -value	β	<i>p</i> -value	β	<i>p</i> -value
Ulterior motives	-.62	< .01***	-.16	.05*	.10	.25 ^{n.s.}	.09	.32 ^{n.s.}
Amusement	.44	< .01***	.26	< .01***	.41	< .01***	.03	.68 ^{n.s.}
Brand attitudes	–	–	.50	< .01***	.40	< .01***	.70	< .01***

Note: *** $p < .01$; ** $p < .05$; * $p < .10$; n.s. = not significant

Table W2. Detailed results of the indirect paths

Indirect path	Path “X → M”		Path “M → Y”		Sobel test statistic (z)	<i>p</i> -value
	β	SE	β	SE		
<i>Dependent variable: Purchase Intentions (PI)</i>						
Ulterior motives → BA → PI	-.62	.05	.50	.08	-5.58	< .01
Amusement → BA → PI	.44	.05	.50	.08	5.10	< .01
<i>Dependent variable: Engagement with the Post (EP)</i>						
Ulterior motives → BA → EP	-.62	.05	.40	.12	-3.22	< .01
Amusement → BA → EP	.44	.05	.40	.12	3.12	< .01
<i>Dependent variable: Brand Equity (BE)</i>						
Ulterior motives → BA → BE	-.62	.05	.70	.08	-7.15	< .01
Amusement → BA → BE	.44	.05	.70	.08	6.20	< .01

Note: BA = Brand Attitudes

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3 The results from the Sobel tests reveal that brand attitudes significantly mediate all
4 indirect paths. Specifically, the results show that brand attitudes mediate the negative effect of
5 ulterior motives on purchase intentions ($z = -5.58, p < .01$), engagement with the post ($z = -$
6 $3.22, p < .01$), and brand equity ($z = -7.15, p < .01$). Similarly, brand attitudes also mediate
7 the positive impact of amusement on purchase intentions ($z = 5.10, p < .01$), engagement with
8 the post ($z = 3.12, p < .01$), and brand equity ($z = 6.20, p < .01$). Overall, these results confirm
9 that brand attitudes are a key mediating variable to capture how ulterior motives and
10 amusement can influence a large set of dependent variables, including purchase intentions,
11 engagement with the post, and brand equity.
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Web Appendix D: Detailed Results of MANOVAs for Study 1 With and Without Covariates

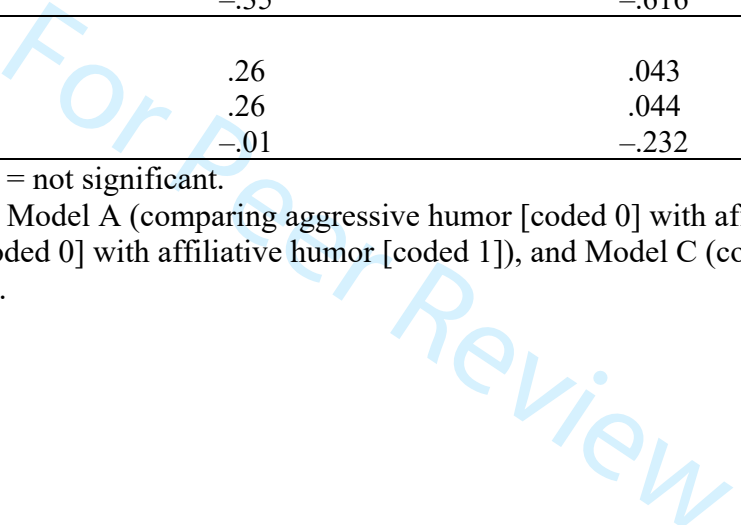
DV	IV	Model with covariates		Model without covariates	
		<i>F</i>	<i>p</i> -value	<i>F</i>	<i>p</i> -value
Brand attitudes	Humor type	29.49	< .01	29.30	< .01
	Gender	.27	.60	–	–
	Age	1.71	.19	–	–
	Sense of humor	15.56	< .01	–	–
	X usage intensity	.01	.91	–	–
Purchase intentions	Humor type	19.66	< .01	21.60	< .01
	Gender	.39	.53	–	–
	Age	.14	.70	–	–
	Sense of humor	9.94	.04	–	–
	X usage intensity	.56	.46	–	–
Ulterior motives	Humor type	35.41	< .01	35.20	< .01
	Gender	.17	.68	–	–
	Age	2.15	.14	–	–
	Sense of humor	5.84	.02	–	–
	X usage intensity	1.00	.32	–	–
Amusement	Humor type	3.68	.03	4.44	.01
	Gender	.18	.68	–	–
	Age	1.99	.16	–	–
	Sense of humor	19.73	< .01	–	–
	X usage intensity	.18	.67	–	–

Web Appendix E: Detailed Results of the Indirect Effects for Purchase Intentions (Study 1)

	<i>Indirect effect</i>	95% Confidence interval	
		Bootstrapped LLCI	Bootstrapped ULCI
<i>Mediating variable: Ulterior motives</i>			
X _A (aggressive vs. affiliative)	.40	.147	.689
X _B (non-humorous vs. affiliative)	.05	-.058	.171
X _C (non-humorous vs. aggressive)	-.35	-.616	-.131
<i>Mediating variable: Amusement</i>			
X _A (aggressive vs. affiliative)	.26	.043	.510
X _B (non-humorous vs. affiliative)	.26	.044	.508
X _C (non-humorous vs. aggressive)	-.01	-.232	.213

Note 1: *** $p < .01$, ** $p < .05$, * $p < .10$, n.s. = not significant.

Note 2: Letters A, B, C respectively refer to Model A (comparing aggressive humor [coded 0] with affiliative humor [coded 1]), Model B (comparing the non-humorous condition [coded 0] with affiliative humor [coded 1]), and Model C (comparing the non-humorous condition [coded 0] with aggressive humor [coded 1]).



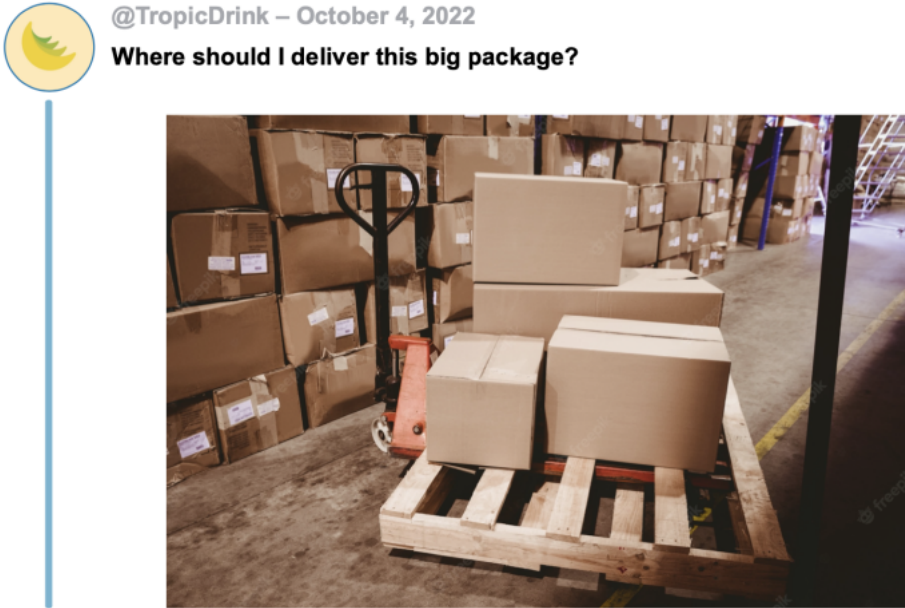
Web Appendix F: Detailed Results of PROCESS Analyses for Study 1 Without Covariates




Variables	Ulterior motives		Amusement		Brand attitudes	
	Coeff.	t	Coeff.	t	Coeff.	t
X _A (aggressive vs. affiliative)	-1.89	-7.72***	.73	2.51**	.88	4.47***
X _B (non-humorous vs. affiliative)	-.26	-1.08 ^{n.s.}	.76	2.66***	.29	1.67*
X _C (non-humorous vs. aggressive)	1.63	6.75***	.03	.11 ^{n.s.}	-.59	-3.09***
Ulterior motives	-	-	-	-	-.40	-7.37***
Amusement	-	-	-	-	.48	10.60***
Relative indirect effects of X on brand attitudes						
	<i>Indirect effect</i>	95% Confidence interval				
		Bootstrapped LLCI	Bootstrapped ULCI			
<i>Mediating variable: Ulterior motives</i>						
X _A (aggressive vs. affiliative)	.75		.456		1.074	
X _B (non-humorous vs. affiliative)	.10		-.087		.304	
X _C (non-humorous vs. aggressive)	-.65		-.965		-.373	
<i>Mediating variable: Amusement</i>						
X _A (aggressive vs. affiliative)	.29		.069		.560	
X _B (non-humorous vs. affiliative)	.37		.096		.678	
X _C (non-humorous vs. aggressive)	.01		-.269		.290	

Note 1: *** $p < .01$, ** $p < .05$, * $p < .10$, n.s. = not significant.

Note 2: Letters A, B, C respectively refer to Model A (comparing aggressive humor [coded 0] with affiliative humor [coded 1]), Model B (comparing the non-humorous condition [coded 0] with affiliative humor [coded 1]), and Model C (comparing the non-humorous condition [coded 0] with aggressive humor [coded 1]).

Web Appendix G: Materials and Stimuli for Study 2

<p style="text-align: center;">Main scenario</p>	<p>TropicDrink is a company selling energy drinks. As you are surfing on Twitter, you find the following message posted by this company to promote its products:</p>  <p>The screenshot shows a Twitter post from @TropicDrink on October 4, 2022. The text of the post asks, "Where should I deliver this big package?". Below the text is a photograph of a warehouse floor with a pallet loaded with several large cardboard boxes. A hand truck is visible in the background.</p>
<p style="text-align: center;">MANIP 1: Competing brand</p>	<p>Then, you realize that another company called Cyan directly answered TropicDrink's Twitter post.</p> <p>As for TropicDrink, Cyan is also a well-known brand selling energy drinks. Because both companies are selling energy drinks, they can be considered direct competitors, competing in the same market and fulfilling the same customers' needs.</p>
<p style="text-align: center;">MANIP 1: Noncompeting brand</p>	<p>Then, you realize that another company called Cyan directly answered TropicDrink's Twitter post.</p> <p>Contrary to TropicDrink, Cyan is a well-known brand selling hygiene products. The two companies are NOT selling the same products (TropicDrink sells energy drinks while Cyan sells hygiene products), they can't be considered competitors, NOT competing in the same market, and NOT fulfilling the same customers' needs.</p>

<p>MANIP 2: Affiliative humor</p>	<p> @TropicDrink – October 4, 2022 Where should I deliver this big package?</p> <p> Cyan @CyanCompany Follow</p> <p>Replying to @TropicDrink</p> <p>I always knew that you were well-endowed 😊</p> <p>8:21PM – October 4, 2022</p> <p>30 Retweets 27 Likes</p> <p>2 30 27</p>
<p>MANIP 2: Aggressive humor</p>	<p> @TropicDrink – October 4, 2022 Where should I deliver this big package?</p> <p> Cyan @CyanCompany Follow</p> <p>Replying to @TropicDrink</p> <p>Probably to someone who has lost the sense of taste!</p> <p>8:21PM – October 4, 2022</p> <p>30 Retweets 27 Likes</p> <p>2 30 27</p>

Web Appendix H: Detailed Results of MANOVAs for Study 2 With and Without Covariates

DV	IV	Model with covariates		Model without covariates	
		<i>F</i>	<i>p</i> -value	<i>F</i>	<i>p</i> -value
Brand attitudes	<i>X</i> : Humor type	55.04	< .01	50.51	< .01
	<i>Z</i> : Competitive context	13.39	< .01	10.80	< .01
	<i>X</i> × <i>Z</i>	4.43	.04	4.46	.04
	Gender	.25	.62	–	–
	Age	14.55	< .01	–	–
	Sense of humor	28.41	< .01	–	–
	<i>X</i> usage intensity	.01	.96	–	–
Ultterior motives	<i>X</i> : Humor type	100.29	< .01	101.09	< .01
	<i>Z</i> : Competitive context	13.62	< .01	15.34	< .01
	<i>X</i> × <i>Z</i>	5.21	.02	4.88	.03
	Gender	1.30	.26	–	–
	Age	6.72	.01	–	–
	Sense of humor	6.39	.01	–	–
	<i>X</i> usage intensity	1.40	.24	–	–
Amusement	<i>X</i> : Humor type	27.79	< .01	25.58	< .01
	<i>Z</i> : Competitive context	20.28	< .01	16.20	< .01
	<i>X</i> × <i>Z</i>	3.88	.05	4.40	.04
	Gender	.01	.95	–	–
	Age	14.43	< .01	–	–
	Sense of humor	46.11	< .01	–	–
	<i>X</i> usage intensity	.36	.55	–	–

Web Appendix I: Detailed Results of PROCESS Analyses for Study 2 Without Covariates

Variables	Ulterior motives		Amusement		Brand attitudes	
	Coeff.	t	Coeff.	t	Coeff.	t
Humor type (0 = aggressive; 1 = affiliative)	-1.32	5.52***	1.57	5.03***	.41	2.53**
Competition context (0 = not competitors; 1 = competitors)	1.03	4.31***	1.35	4.30***	–	–
Humor × Competition context	-.74	-2.21**	-.92	-2.10**	–	–
Greed	–	–	–	–	-.16	-3.20***
Amusement	–	–	–	–	.70	18.19***
R ²	.32		.15		.66	
ΔR ²	.01		.01			
	[ΔF(1, 257) = 4.87, p < .05]		[ΔF(1, 257) = 4.40, p < .05]			
Conditional effects of humor type at values of the moderator:						
	<i>Indirect effect</i>	95% Confidence interval				
		Bootstrapped LLCI	Bootstrapped ULCI			
<i>Mediating variable: Ulterior motives</i>						
Non-competitors	.21	.072		.401		
Competitors	.33	.124		.579		
Index of moderated mediation	.12	.011		.271		
<i>Mediating variable: Amusement</i>						
Non-competitors	1.11	.611		1.608		
Competitors	.46	.063		.868		
Index of moderated mediation	-.65	-1.262		-.031		

Notes: *** $p < .01$, ** $p < .05$, * $p < .10$, n.s. = not significant.

Web Appendix J: Stimuli for Study 3A

Underdog brand condition:

Burger's is also a fast-food brand. The company has had to compete against longtime powerful fast-food chains. Even though Burger's had smaller budgets, the founders always believed that their dedication and passion would help them overcome the odds and bring their higher-quality products to market. Through still relatively less known compared to powerful competitors, they are regarded by analysts to be a high-quality fast-food.

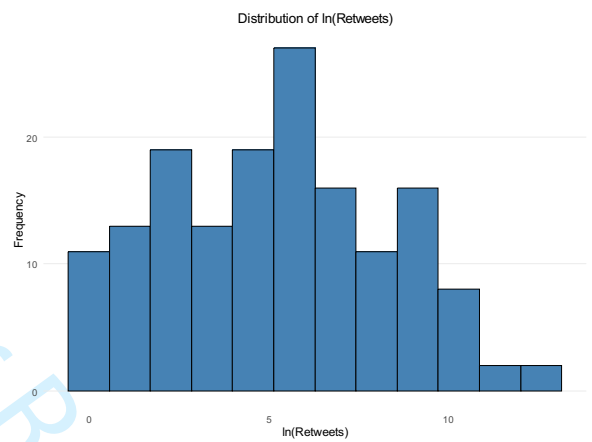
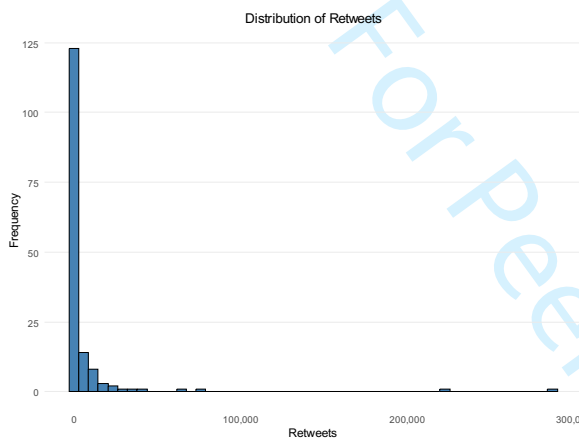
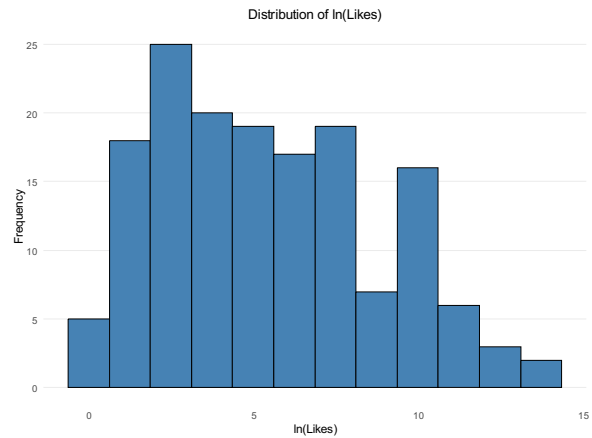
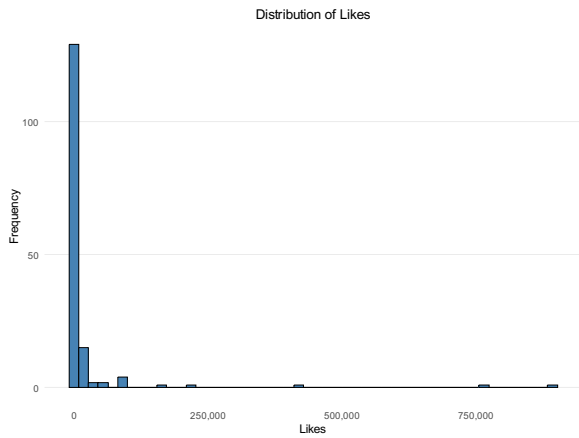
Top dog brand condition:

Burger's is also a fast-food brand. The company is well-resourced and has done well in the fast-food industry. The founders have significant experience in the fast-food industry and are known to maintain quality in every step of the production process. They are now owned by an international fast-food corporation which was able to build the brand with a large public relations budget. Because of this heavy financial support, they are now a well-known brand serving all around the US.

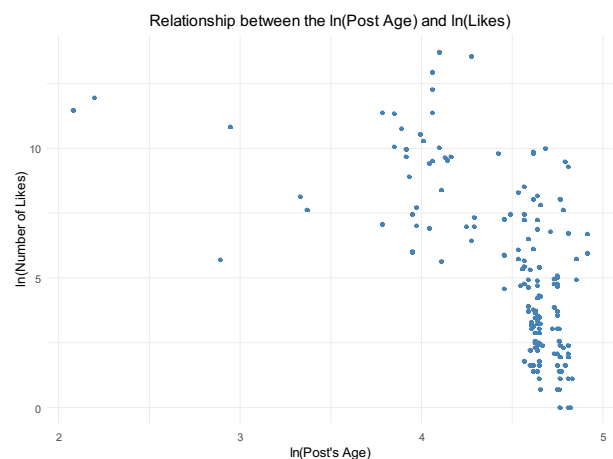
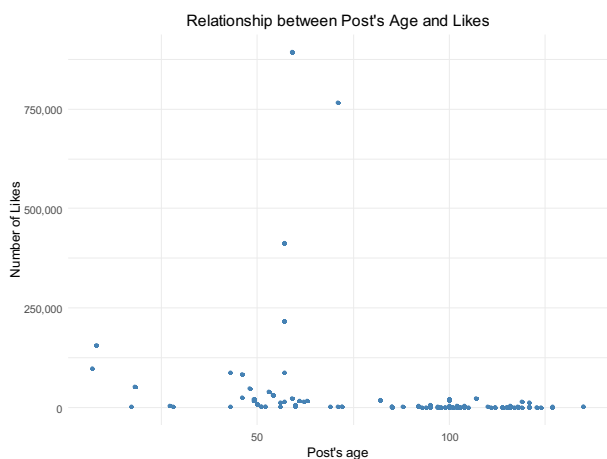
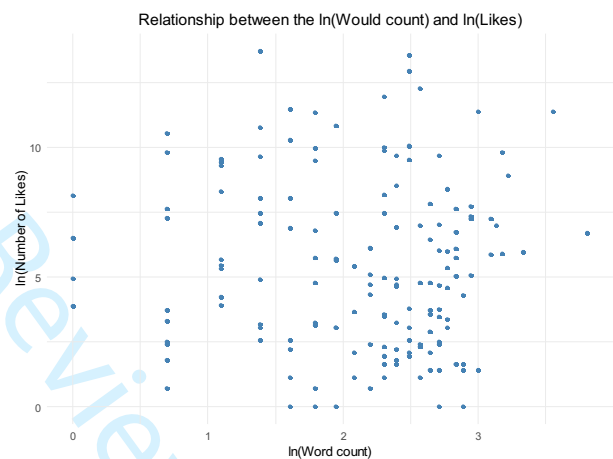
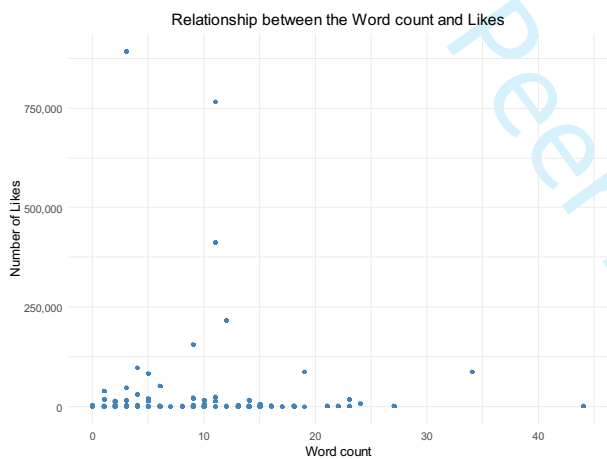
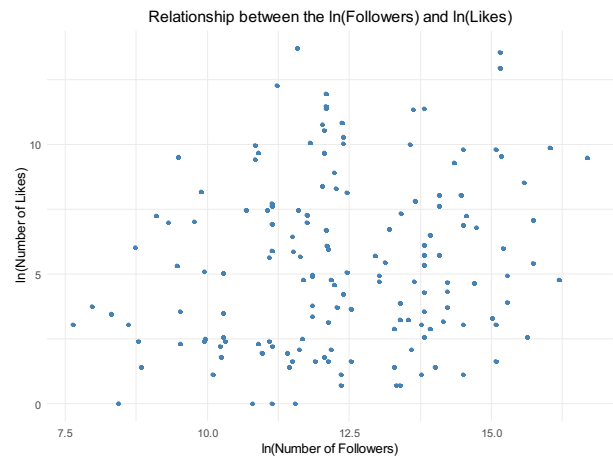
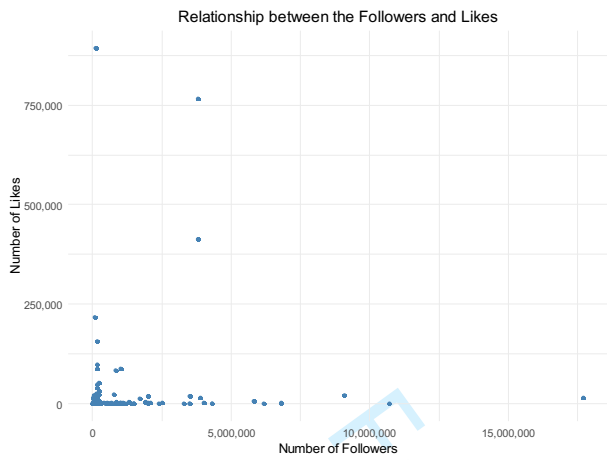
Web Appendix K: Detailed Results of MANOVAs for Study 3A With and Without Covariates

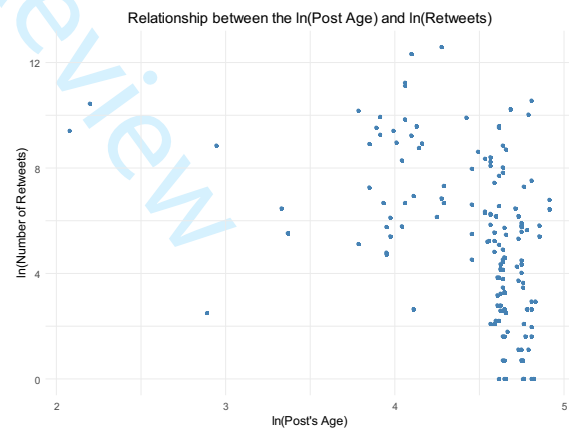
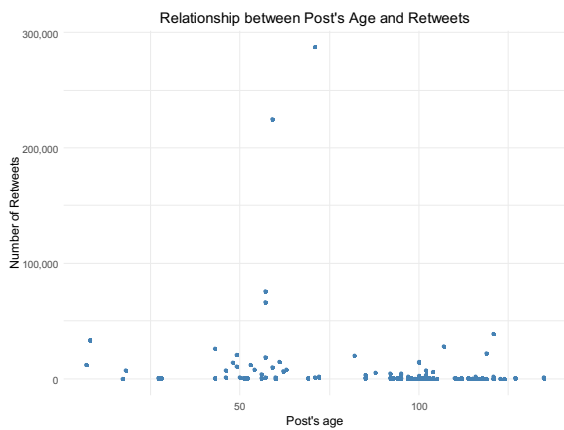
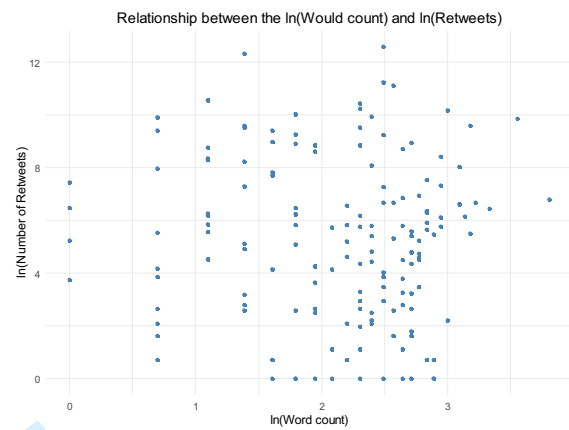
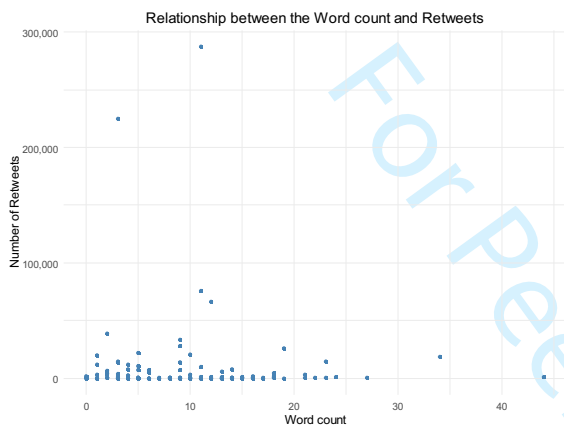
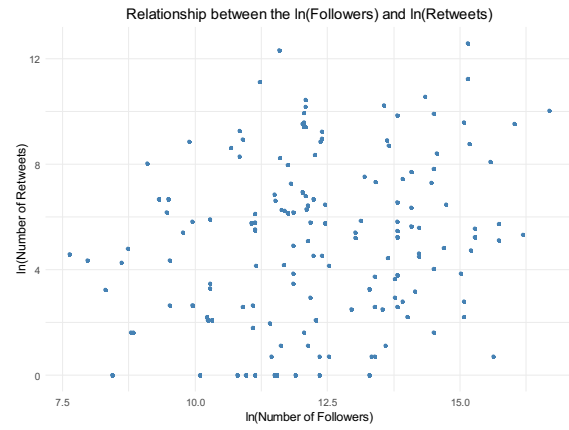
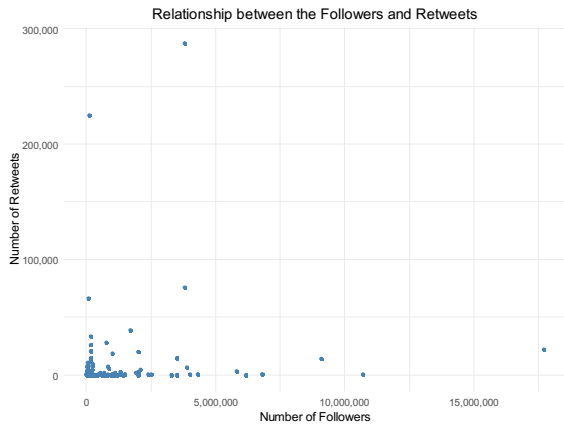
DV	IV	Model with covariates		Model without covariates	
		<i>F</i>	<i>p</i> -value	<i>F</i>	<i>p</i> -value
Purchase intentions	<i>X</i> : Humor type	5.69	< .01	7.63	< .01
	<i>Z</i> : Brand position	11.80	< .01	12.79	< .01
	<i>X</i> × <i>Z</i>	2.42	.09	2.82	.06
	Gender	2.34	.13	–	–
	Age	.48	.49	–	–
	Sense of humor	53.24	< .01	–	–
	<i>X</i> usage intensity	.13	.72	–	–
Ulterior motives	<i>X</i> : Humor type	1.41	.25	1.34	.26
	<i>Z</i> : Brand position	5.33	< .01	5.53	.02
	<i>X</i> × <i>Z</i>	1.20	.30	1.36	.26
	Gender	.31	.58	–	–
	Age	1.96	.16	–	–
	Sense of humor	16.61	< .01	–	–
	<i>X</i> usage intensity	1.51	.22	–	–
Amusement	<i>X</i> : Humor type	20.83	< .01	21.16	< .01
	<i>Z</i> : Brand position	2.85	.09	3.23	.08
	<i>X</i> × <i>Z</i>	9.15	< .01	9.62	< .01
	Gender	.22	.64	–	–
	Age	4.29	.04	–	–
	Sense of humor	39.45	< .01	–	–
	<i>X</i> usage intensity	2.64	.10	–	–

Web Appendix L: Histograms and Scatter Plots (Study 3B)



Web Appendix M: Scatter Plots for the Number of Likes (y-axis) and Number of Followers, Post's Word Count, and Post's Age (x-axis) in Levels (left panels) and Logs (right panels)





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