



Tweeting like Elon? Provocative language, new-venture status, and audience engagement on social media

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ABSTRACT

This article theorizes and empirically investigates how status and provocative language influence audience engagement with new-venture posts on social media platforms. Using venture capital funding as a status proxy, we analyzed 369,142 Twitter posts by 268 new ventures. We found that status (1) increases engagement with ventures' tweets, and that it (2) moderates the effect of provocative language on audience engagement so that provocative language has a negative effect for low-status ventures but a positive effect for high-status ventures. Post-hoc analyses provide a basis for pragmatic theorizing and explore the effects of status tiers and subdimensions of provocative language.

1. Executive summary

Communication between new ventures and their audiences is key to enrolling stakeholders (Fisher, 2020; Fisher et al., 2020; Mitchell et al., 2021). The advent of social media platforms like Twitter and Facebook means that we may need to reconsider how new ventures can effectively communicate with external audiences (Etter et al., 2019). It is well established that new ventures benefit from social media communication (e.g., Antretter et al., 2019; Jin et al., 2017) and that effective social media communication needs to engage social media audiences, commonly measured via shares and likes (e.g., Gelper et al., 2021; Lee et al., 2018; Mallipeddi et al., 2021). However, we are just beginning to understand what drives such engagement in an entrepreneurship context (cf. Roccapiore and Pollock, 2022).

Research has shown that “superstar entrepreneurs” tend to display a “rule-breaking” attitude on social media, with little inclination to please others (Obschonka et al., 2017). This is perhaps best exemplified by Elon Musk—“Entrepreneur of the Year” (Chafkin, 2007)—who has repeatedly used provocative language, such as calling people pedophiles (Langone, 2018) or idiots (Musk, 2017). The social media buzz such tweets create is echoed in research suggesting that provocative language attracts audience engagement. Marketing and political science have argued for and found a positive effect of provocation on audience engagement online (e.g., Boulianne and Larsson, 2021; Fine and Hunt, 2021; Petrescu and Korgaonkar, 2011; Porter and Golan, 2006; Sabri, 2017). Building on

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this stream of literature, provocative language manifests in expressions of aggression, disobedience toward regulations, use of swear words, and antagonism. However, such research has not considered the impact of communicator status on this relationship. In contrast to the examined high-status communicators, such as superstar entrepreneurs, big brands, or politicians, new ventures commonly begin with low status (Milanov and Shepherd, 2013; Pollock et al., 2015) and must gain status through, for example, affiliations with high-status actors, such as venture capitalists (Lee et al., 2011; Pollock et al., 2010).

In this article, we theorize and empirically investigate the role of venture status in how provocative language influences audience engagement with new ventures' tweets. Therefore, we ask (1) how a venture's status influences audience engagement with its tweets, and (2) how a venture's status influences the relationship between provocative language in its tweets and audience engagement with those tweets.

We test our theorizing using a panel of 369,142 Twitter posts generated by 268 US-based internet ventures funded by venture capital (VC) and founded between 2011 and 2015. We find that the higher status that accompanies VC funding is positively related to the audience engagement that tweets attract. We also find that provocative language in tweets negatively impacts audience engagement for tweets by low-status ventures (i.e., those without VC funding) and positively impacts audience engagement for tweets by high-status ventures (i.e., those with VC funding).

Our study makes several contributions. First, we theorize and find support for a boundary condition (i.e., the communicator's status) of the previously established positive effect of provocative communication on audience engagement online. Second, we provide insights into how the effectiveness of new ventures' social media communication to engage audiences depends on the interplay between influencing factors related to the post and to the venture. Finally, we add to studies on the effects of VC funding by highlighting that VC funding is a valuable status marker that can be imported to online settings, ultimately affecting how ventures' provocative language engages audiences on social media. Tweeting like Elon seems to work, but only for those of high status.

2. Introduction

"Twitter is a war zone. If somebody's going to jump in the war zone, it's like, okay, you're in the arena. Let's go."—Elon Musk.

New ventures need to effectively communicate with their audiences in order to acquire the resources needed to survive in their vulnerable early years (Fisher et al., 2017; Lounsbury and Glynn, 2001; Stinchcombe, 1965) and to enroll stakeholders (Fisher, 2020; Fisher et al., 2020; Mitchell et al., 2021). A large body of research has established the importance of new-venture communication to swaying gatekeepers such as venture capitalists to obtain capital and journalists to receive public exposure (e.g., Lounsbury and Glynn, 2001; Navis and Glynn, 2011; Petkova et al., 2013). For example, to gain market awareness and acceptance, ventures communicate to broader audiences through journalists and editors (for a literature review on firm media coverage, see Graf-Vlachy et al., 2019), telling attractive stories about the new venture and the entrepreneurial team (Martens et al., 2007; Pan et al., 2020; Shoemaker and Vos, 2009).

However, with the advent of social media, we may need to reconsider notions of new ventures' effective communication with external audiences (Etter et al., 2019). Social media refers to "new information and communication technologies that enable their users to connect and publicly exchange experiences, opinions, and views on the Internet" (Etter et al., 2019, p. 28) and includes platforms such as Twitter, Facebook, and Instagram. Social media allows ventures to bypass traditional media gatekeepers (Etter et al., 2019), such as journalists and editors, and thus represents a shift away from traditional communication (e.g., Navis and Glynn, 2011; Petkova et al., 2013).

Social media posts can be shared by any user exposed to them, making the audience "unknowable a priori" (Fischer and Reuber, 2011, p. 17). As a result, social media communicators have "little possibility of customization for any particular audience or audience member" (Fischer and Reuber, 2014, p. 569). Instead, ventures broadcast posts to diverse audiences in a context of fragmented and fleeting communication (Fischer and Reuber, 2014) and rely on these audiences to rebroadcast their posts to wider audiences. It is thus well established that effective social media communication involves high audience engagement, commonly represented by audience members endorsing and sharing these social media posts (e.g., Gelper et al., 2021; Lee et al., 2018; Mallipeddi et al., 2021).

Entrepreneurs often emphasize the benefits of their social media communications (Mack et al., 2017; Stelzner, 2015), especially for interacting with various stakeholders (Fischer and Reuber, 2011, 2014). For example, new ventures' social media communications are associated with increased crowdfunding pledges (Li and Wang, 2019), increased likelihood of raising VC as well as a higher amount raised (Jin et al., 2017), and enhanced venture performance (e.g., Antretter et al., 2019; de Oliveira Santini et al., 2020; Fischer and Reuber, 2011, 2014; Heavey et al., 2020).¹ These benefits have not escaped the attention of venture capitalists, who increasingly monitor new ventures' social media performance to identify promising investment targets (Hong, 2013; Tumasjan et al., 2021). However, despite the importance of social media engagement, we are only beginning to explore its drivers in an entrepreneurial context (cf. Roccapiore and Pollock, 2022).

Among the few entrepreneurship studies on social media, Obschonka et al. (2017) provided insights on how "superstar entrepreneurs" behave on these platforms. Superstar entrepreneurs' social media communications display a "rule-breaking" attitude, and little inclination to please others (Obschonka et al., 2013, 2017). This approach is perhaps best exemplified by Elon

¹ Although scholars have already provided evidence that "social media is associated with increased success in raising venture capital financing" (Jin et al., 2017, p. 1), we wanted to explore whether this is also the case for our measures of audience engagement (retweets and likes) and the ventures within our sample. We found positive and significant associations between audience engagement and ventures' second-round funding performance (following Ter Wal et al., 2016) (please see online Appendix B.1 for more details).

Musk—“Entrepreneur of the Year” (Chafkin, 2007) and “America’s Most Innovative Leader” (Forbes, 2019). Musk has repeatedly attracted audience engagement by casting insults on Twitter (calling people pedophiles; see Langone, 2018; or idiots; see Musk, 2017) or tweeting about “going against Alameda County rules” in sending workers to factory amid the Covid-19 lockdown (Miltimore, 2020).

Musk’s approach to tweeting has thus been described as provocative. For example, the *Washington Post* noted that “Elon Musk is no stranger to pulling stunts and jotting off *provocative* tweets” (McGregor, 2022), and the *New York Times* characterized him as a “divisive Twitter personality [who]...regularly shares *provocative* opinions” (Olson, 2022). The *Bloomberg Law* webpage described how “Musk doesn’t shrink from a fight. He has tangled with everyone from the US Securities and Exchange Commission over his *provocative* tweets” (Feeley et al., 2022), and *NBC News* pointed out that for some, “Musks’ [sic] *provocative* words have overshadowed his climate-friendly actions” (Seitz-Wald, 2022). Although admitting that he “was always crazy on Twitter” (Musk, 2019), given his iconic status as “the first influencer CEO” (Lopatto, 2018), other entrepreneurs may be tempted to follow Musk and use similar provocative social media posts to engage their audiences.

Indeed, social media research suggests that provocative language is conducive to audience engagement in online contexts. For example, research in marketing and political science has argued and found that provocation through controversial advertising (Petrescu and Korgaonkar, 2011; Porter and Golan, 2006; Sabri, 2017) and verbal attacks on political opponents (Boulianne and Larsson, 2021; Fine and Hunt, 2021; Meeks, 2020) attract audience engagement online. Building on this stream of literature, we define *provocative language* as words that are expected to challenge and transgress at least a portion of audiences’ “values, norms or taboos that are habitually not challenged or transgressed” (Vézina and Paul, 1997, p. 179), including expressions of aggression, disobedience toward regulations, use of swear words, and antagonism.

The purpose of this article is to theorize and empirically investigate how new ventures’ provocative language in social media communication engages online audiences and the boundary conditions of this relationship from a status perspective. Specifically, we note that previous research on the positive relationship between provocation and online audience engagement has focused on high-status communicators, such as well-established firms (e.g., Porter and Golan, 2006) and seasoned politicians (e.g., Boulianne and Larsson, 2021; Meeks, 2020). However, in the new-venture context, status cannot be taken for granted because new ventures generally start with low status (Milanov and Shepherd, 2013; Pollock et al., 2015) and must maneuver to gain status by, for example, securing the endorsement of high-status actors, such as venture capitalists (Lee et al., 2011; Pollock et al., 2010). Therefore, we ask how a venture’s status influences (1) audience engagement with its social media posts, and (2) the relationship between provocative language in its social media posts and the audience engagement the posts generate.

To address these questions, we build on theories of status (e.g., Levina and Arriaga, 2014; Washington and Zajac, 2005), communication (e.g., Bourdieu, 1991; Pan et al., 2020; Rhee and Fiss, 2014; Snihur et al., 2021), and the entrepreneurship literature on social media (e.g., Fischer and Reuber, 2014; Obschonka et al., 2017) to theorize about the effect of status on audience engagement with new ventures’ social media posts. We test this theorizing using a panel of 369,142 Twitter posts generated by 268 US-based VC-funded internet ventures founded between 2011 and 2015.² We trace these ventures’ posts before and after VC funding, which allows us to compare the social media communications of low- and high-status ventures. We find that the higher status that accompanies VC funding is positively related to the engagement that social media posts attract. We also find that provocative language in tweets negatively affects audience engagement for posts by low-status ventures and positively affects audience engagement for posts by high-status ventures.

Our study contributes to the entrepreneurship literature on new ventures’ (online) communication and to the literature on the effects of VC funding. First, previous entrepreneurship research explored the importance of new-venture communication to enrolling stakeholders (Fisher, 2020; Fisher et al., 2020; Mitchell et al., 2021), whereby telling attractive stories about the new venture enhances market acceptance (Martens et al., 2007; Pan et al., 2020). However, the advent of social media changes notions of what constitutes effective communication with audiences (Etter et al., 2019), where high-status communicators, such as superstar entrepreneurs (Obschonka et al., 2017), politicians (Boulianne and Larsson, 2021; Fine and Hunt, 2021), and big brands (e.g., Sabri, 2017), have achieved engagement through provocative approaches. We reason that in entrepreneurship, new-venture status cannot be taken for granted (Milanov and Shepherd, 2013). Theorizing and finding that provocative language on social media can backfire for new ventures lacking in status contributes new insights on how the effectiveness of social media communication can vary based on new-venture status. Thus, we introduce the communicator’s status as an important boundary condition of the previously established positive effect of provocative communication on audience engagement online.

Second, despite social media’s importance for a number of new-venture outcomes (Antretter et al., 2019; Jin et al., 2017), our understanding of audience engagement in this context is just emerging. In this regard, we have not sufficiently explored why some new ventures are better than others at using their social media communication to engage audiences (cf. Roccapiore and Pollock, 2022). We show that (1) characteristics of the venture, such as whether it is VC-funded and whether funders are top-tier venture capitalists; (2) characteristics of the message, such as how a post is linguistically framed; and (3) their interaction affects audience engagement with new-venture tweets. These findings have implications for the entrepreneurship literature on drivers of audience engagement on social media because they establish the importance of concomitantly examining the interplay of the communicator and the message.

² We chose 2011 as the cut-off because at the time of data collection, these firms were <10 years old, which represents a common operationalization of a new venture (e.g., Cardon and Kirk, 2015; Lundmark et al., 2020; Patel and Jayaram, 2014; Shane, 2008; Yli-Renko et al., 2001). In addition to the sample being drawn from Twitter before Elon Musk acquired the platform in October 2022, this article was also submitted before the acquisition.

Finally, new ventures seek financial resources from venture capitalists and others to grow and exploit potential opportunities (Clough et al., 2019). Over and above the financial capital provided, ventures backed by VC benefit from enhanced status when competing for prospective talent (Hellmann and Puri, 2002; Vanacker et al., 2013), alliance partners (Pollock and Gulati, 2007), or public market investors (Lee et al., 2011). We add to the nuance of VC funding effects on new ventures by highlighting that VC funding is a valuable status marker that can be imported to online settings. Therefore, we add knowledge about the consequences of VC funding beyond its immediate financial benefits by providing a basis for linking the off- and online contexts (Wang et al., 2021).

3. New-venture status and audience engagement on social media

Social media is widely recognized as a cost-effective means for new ventures to interact with a broad audience (e.g., Fischer and Reuber, 2011, 2014). However, different social media platforms vary in their characteristics; therefore, researchers must be mindful of the idiosyncrasies of the platforms they study (Levina and Arriaga, 2014). In theorizing audience engagement with social media posts by new ventures, we focus on Twitter but acknowledge that social media refers to a broader category in which networking sites might differ even though they share characteristics with Twitter. We thus refer to specific other social media platforms when appropriate.

Twitter is among the most-adopted social media platforms worldwide and is a relevant social media context for entrepreneurs and entrepreneurship research for several reasons. First, we see growing evidence of the importance of achieving audience engagement on Twitter for various venture outcomes (e.g., Antretter et al., 2019; de Oliveira Santini et al., 2020; Heavey et al., 2020; Jin et al., 2017). Second, on Twitter ventures can communicate with a range of stakeholders, including potential and existing investors (Blankespoor et al., 2014; Prokofieva, 2015). Twitter is even recognized by the US Securities and Exchange Commission as a means of public disclosure (SEC, 2013). Finally, tweets—as minimally customizable narratives (Czarniawska and Wolff, 1998)³—are increasingly forming the data backbone of a growing scholarly conversation in the entrepreneurship literature that qualitatively and quantitatively examines social media and online communication by entrepreneurs (Fisch and Block, 2021; Fischer and Reuber, 2014; Obschonka et al., 2017).

Advancing our understanding of social media communication and audience engagement requires us to first build an understanding of the motivations of social media users. To do that, we build on existing literature on status dynamics within social media (e.g., Iyer and Katona, 2016; Levina and Arriaga, 2014). Second, by adopting a linguistic perspective, we theorize how the characteristics of social media posts influence audience engagement. Finally, by combining this linguistic perspective with status dynamics, we theorize how the characteristics of message and communicator interact.

Although individuals participate in social media for many reasons, such as to learn or to stay informed, most are driven by social motives, such as social belonging and status (Kraut and Resnick, 2012). For example, in a study of noncommercial Twitter users by Toubia and Stephen (2013), image-related utility (i.e., perceptions by other users) was a stronger driver of social media activity than intrinsic motivations (i.e., inherent satisfaction from the activity). Thus, status is central to understanding the drivers of social media behavior (Levina and Arriaga, 2014). Status represents the extent to which others respect or honor a social actor (for a review on the nature of status, see Magee and Galinsky, 2008). Thus, status reflects an actor's standing within the social order (Washington and Zajac, 2005).

In the social media space, acts of respect are directly observed through user engagement, which, on Twitter, is tied to specific posts (i.e., tweets). Indeed, an important function of Twitter users—in addition to posting their own messages—is reacting to or rebroadcasting others' tweets by liking or sharing them (on Twitter, the latter action is called retweeting), ultimately contributing to a collective evaluation of what deserves attention. On Twitter, as on social media platforms in general, engagement in the form of likes and shares is seen as a sign of endorsement (Parmelee and Richard, 2013).

Publicly liking a post signals that a user effectively agrees with or appreciates its content (Twitter, 2022a). Similarly, retweeting is seen as “both a contribution to the platform (a tweet) and an act of evaluation (signaling that somebody else's contribution is worthy of attention)” (Levina and Arriaga, 2014, p. 478). The motivation behind retweeting was further nuanced by Metaxas et al. (2015, p. 661), who surveyed Twitter users and conducted a meta-review of 100 Twitter-related publications. They found that “retweeting indicates not only interest in a message, but also trust in the message and the originator, and agreement with the message contents.” Thus, Twitter functions such that users generally share content they find relevant and interesting, believing that others will or should find it relevant and interesting, too (Twitter, 2022b).⁴

While engagement with posts contributes to the formation of online status hierarchies through collective evaluation of what (and who) deserves attention, online communities also import status markers from offline settings (Bianchi et al., 2012). Prior status literature in management has demonstrated similar transferability of status between domains. For example, research has shown that venture capitalists with high status in home markets can benefit from it in foreign markets (Liu and Maula, 2021) and that commercial banks can leverage their status when entering new market domains (Jensen, 2003). Referring to social media, Twitter has been highlighted as a context in which such external status transfers can be particularly effective (Levina and Arriaga, 2014).

³ Tweets were limited to 140 characters until November 2017. Although this limit has increased to 280 characters to date, it had little impact on tweeting behavior, as subsequently, only 5 % of tweets exceed 190 characters (Perez, 2018).

⁴ While the Twitter platform and the literature on retweeting documents that retweets are typically positive endorsements of the original tweet's content, it is possible that the audience can disagree with a post's content and respond accordingly in a retweet. However, such reactions do not change the collective judgments (Etter et al., 2019), and even when retweeting signals disagreement, the original tweet is still engaging the audience. This audience engagement likely means that the content is worthy of attention, as the audience feels compelled to respond.

Although new ventures typically start with low status (Milanov and Shepherd, 2013), the literature proposes several ways in which status differences emerge between ventures, such as when some ventures add founders with top university affiliations (e.g., Shen et al., 2022), signal affiliations with high-status regional clusters (e.g., Luo et al., 2020), or attain media coverage (Kotha et al., 2022). However, the “most definite” differences in status are observed when some actors are legitimized by a consecrating event (Allen and Lincoln, 2004; Cattani et al., 2014; Delacour and Leca, 2017, p. 599). Consecration, conceptually and empirically (Allen and Parsons, 2006; Jones and Massa, 2013), refers to events where authoritative actors—who determine selections, honors, and prizes—elevate another actor’s status by selecting it from the many (Allen and Lincoln, 2004).

For new ventures, receiving VC represents such a consecrating event because venture capitalists are “expected to use their expertise to identify and develop the most promising young companies” (Pollock and Gulati, 2007, p. 346) and are seen as authoritative actors (Singh et al., 1986). While different types of affiliations (e.g., alliance partners, universities, or incubators) can influence a venture’s status, relationships that include financial commitments have a more substantial signaling effect than non-equity ones (Hsu, 2004; Stuart et al., 1999). Given venture capitalists’ highly selective nature and strong due-diligence processes, VC funding provides an important endorsement of a venture’s quality (Blevins and Ragozzino, 2018), separating consecrated ventures from the rest. Acquiring VC is far from the norm, as only 0.05 % of ventures receive VC funding (Wood, 2020). VC funding brings the endorsed actors into the spotlight (Pollock and Gulati, 2007). Therefore, we treat the acquisition of VC funding as a consecrating event that elevates a venture’s status.

The status that accompanies VC funding is likely to affect audience engagement with social media posts by VC-funded ventures for three reasons. First, “the formation of public opinion follows a ‘social influence’ logic, leading some organizations to gain disproportionate amounts of public attention and support on the basis of rather general and non-specific impressions and beliefs” (Kuran and Sunstein, 1999, cited in Rindova et al., 2005, p. 1037). Following this logic of social influence, VC-funded ventures are arguably more visible (Pollock and Gulati, 2007), which directs audiences’ attention to them. Indeed, although such consecration is earned outside the social media setting, it still forms an important part of these ventures’ broader symbolic capital (Bourdieu, 2018) and, as such, can play an important role in guiding social recognition in online settings, particularly on Twitter (Levina and Arriaga, 2014). Although users are exposed to posts from all the people and organizations they follow, they are more likely to pay attention to posts by actors of higher status (e.g., Aral, 2013; Rao et al., 2003), which should increase their tendency to engage with a post.

Second, audiences tend to perceive messages from those of higher (vs. lower) status as more important and persuasive (Rhee and Fiss, 2014). Such prioritizing also applies to Twitter, where author characteristics are a criterion for evaluating the importance of a message (Lee and Sundar, 2013; Park and Kaye, 2019). For example, news tweets by professional journalists are retweeted more frequently than those by regular users (Cha et al., 2012). Therefore, audiences are more likely to engage with posts by higher-compared with lower-status ventures.

Finally, sharing posts by those of higher status carries the prospect of improving the sharer’s online status, because sharers can ingratiate themselves with the higher-status actor. Such ingratiation carries the prospect of elevating one’s own status within the online community. Social media platforms are places where users are driven by impression-management motives (Wilson and Proudfoot, 2014) and seek to promote themselves (Moon et al., 2016; Taylor and Strutton, 2016). Because audience members’ likes and shares are public statements that confer association between users (Metaxas et al., 2015; Parmelee and Bichard, 2013), they can represent “prisms” through which users are evaluated by others (Podolny, 2001). Thus, users’ responses not only contribute to the status of the post’s originator but also make possible a spillover effect of this status for those who like and share. If high-status communicators’ messages are seen as more important (Rhee and Fiss, 2014), by engaging with posts of high-status actors, online audiences seek to signal that they are part of a more prominent conversation. Considering these together, we thus hypothesize as follows⁵:

Hypothesis 1. Tweets by new ventures of higher status (i.e., ventures with VC funding) will have higher audience engagement than those from ventures of lower status (i.e., ventures without VC funding).

4. New ventures’ provocative language, status, and audience engagement on social media

Although the previously theorized status dynamics drive much of the engagement behavior on social media platforms like Twitter (Levina and Arriaga, 2014; Toubia and Stephen, 2013), even high-status superstar entrepreneurs like Elon Musk refer to it as a “war zone.” This notion is echoed in an interview in which entrepreneurs compared Twitter to “standing on the street corner with a megaphone” (Fischer and Reuber, 2011, p. 3). Such statements exemplify that entrepreneurs of varying statuses share perceptions of intense competition for attention on social media platforms (Gelper et al., 2021; Iyer and Katona, 2016), which puts pressure on their posts to stand out. The pressure is due to the vast content shared on social media, only a fraction of which attracts substantial audience engagement (e.g., Berger and Milkman, 2012; Weng et al., 2012).

Because this “glut of information on Twitter often surpasses the upper limit of users’ cognitive capacity,...[users] ease their decision to retweet by relying on efficient heuristic evaluation” (Morris et al., 2012, cited in Park and Kaye, 2019, p. 2). Whereas relying on communicator status is one such heuristic, research and practice also described how language could help capture audience

⁵ Research also assumes that new ventures can increase their status over time (e.g., Fisher et al., 2016). We argue that accounting for this time effect, the change in status that stems from a consecrating event will still hold. We also run robustness analyses in which we use venture age as a proxy for gradual change in status.

attention. An example is the use of striking words within tweets, such as “WOW,” “LOOK,” or “TODAY ONLY” (Malhotra et al., 2012; caps in original), or the use of loaded words, such as “scandal” (Tan et al., 2014).

Echoing these examples, research found that emotion-provoking communication generally affects audience engagement more than content targeting reasoning and cognition does (Nabi, 2010). Accordingly, social media audiences engage more with and pay more attention to emotional content (Berger and Milkman, 2012; Heimbach and Hinz, 2016; Toubiana and Zietsma, 2017) or to content framed to provoke emotions, such as fake news (Clarke et al., 2020) or racist and sexist tweets (Inara Rodis, 2021). In line with this rationale, provocation through advertising controversial content (Petrescu and Korgaonkar, 2011; Sabri, 2017) or politicians’ attacks on opponents on social media (Boulianne and Larsson, 2021; Fine and Hunt, 2021; Meeks, 2020) was also found to increase audience engagement online.

Given the importance of the language used in online media for audience engagement (Berger and Milkman, 2012; Heimbach and Hinz, 2016), we also adopt a linguistic perspective to examine whether the language in social media posts can increase a post’s audience engagement and how this relationship might depend on a new venture’s status. More specifically, we build on the linguistic framing literature that suggests that entrepreneurs and firms carefully choose their words to frame their communication (e.g., Rhee and Fiss, 2014; Snihur et al., 2021) in order to shape audience perceptions (Emrich et al., 2001) and reactions (Cornelissen and Werner, 2014; Entman, 1993; Pan et al., 2020). These linguistic frames are defined by particular vocabularies (Ruebottom, 2013). Entrepreneurs and firms use such framing to stir controversy (Delacour and Leca, 2017; Meyer and Höllerer, 2010) in order to attract media attention (Andrews and Caren, 2010) and generate audience engagement on social media (Roccapiore and Pollock, 2022; Small and Warn, 2020).

The notion that ventures could increase audience engagement on social media through provocative language in their tweets is supported by two arguments. First, as discussed previously, the vast information on social media exceeds human cognitive processing capacity, making audiences resort to heuristics in deciding which content to pay attention to and engage with (Gelper et al., 2021; Morris et al., 2012). Such heuristics are useful when people confront information overflow—as is the case with information on social media; information must stand out to be noticed, interpreted, and evaluated (Kahneman et al., 1982). Provocative language likely helps new ventures stand out on social media because such language challenges and transgresses many people’s “values, norms or taboos that are habitually not challenged or transgressed” (Vézina and Paul, 1997, p. 179). For example, one of the posts in our sample states, “Do you fight dirty? Yeah, fuck, yeah. Why Crossfit is so litigious.” This framing is evidently more provocative and attention-grabbing than non-provocative reframing, such as “Let us explain the reasons behind Crossfit’s litigation.”⁶

Second, provocative language evokes emotions, and emotional content can drive audience engagement on social media (Berger and Milkman, 2012; Heimbach and Hinz, 2016; Toubiana and Zietsma, 2017) regardless of whether it generates a positive emotional reaction, like appreciation (Béal and Grégoire, 2021), or a negative emotional reaction, like anger (Hasell and Weeks, 2016). Indeed, audiences are engaged by provocative communication in controversial advertising (Petrescu and Korgaonkar, 2011; Porter and Golan, 2006; Sabri, 2017) and politicians’ attacks on opponents (Boulianne and Larsson, 2021; Fine and Hunt, 2021; Meeks, 2020).

In contrast to established brands and politicians (Boulianne and Larsson, 2021; Fine and Hunt, 2021; Meeks, 2020; Petrescu and Korgaonkar, 2011; Porter and Golan, 2006; Sabri, 2017), new ventures are not established and typically start with low status (Milanov and Shepherd, 2013). Because audiences do not fully separate message (i.e., a tweet) from messenger (i.e., the new venture) (Benford, 1993; Rhee and Fiss, 2014), the venture’s status likely influences the nature of the relationship between provocative language and audience engagement for social media posts.

First, we previously theorized that status markers (such as a venture’s VC funding) transfer to Twitter (Levina and Arriaga, 2014) and that actors of high status are more visible than those of low status (Pollock and Gulati, 2007). On social media, when a user engages with a high-status venture’s provocative post, the user joins a potentially inflammatory and wider-reaching conversation amplified by the high-status communicator’s visibility, as public attention feeds itself (Trumbo, 1995). Engaging with (1) a provocative tweet from (2) a high-status actor, therefore, may synergistically increase an audience member’s own visibility, given that by liking or sharing such a post, the audience member could also attract heightened engagement. The prospect of visibility is important because “reaching and being listened to by other peers in the network” has been described as a primary driver of social media use (Iyer and Katona, 2016, p. 2). By contrast, engaging with a provocative post from a low-status venture is unlikely to contribute to the audience member’s desired visibility to the same extent. It misses the potential to gain such momentum due to the lack of visibility by a low-status venture.

Second, beyond visibility, venture status has a bearing on the credibility of the provocative tone. Indeed, “the persuasive power of speakers rests not only on what they say and how well they say it but also on who they are. In other words, the status and prestige of the communicators have a direct bearing on the perceived plausibility of claims” (Benford, 1993, p. 693). In the context of provocative frames, this plausibility can be especially tenuous coming from a low-status actor and seen as “colorful and dramatic...but... ‘talking loudly and carrying a small stick’ can be ignored” (Gamson, 1990, p. 87). Provocative language stemming from a low-status communicator is likely appraised as less credible, as less interesting, and ultimately as unable to engage audiences. By contrast, when high-status actors challenge norms (even within legal frameworks), they are less likely to be penalized for their contraventions than their low-status counterparts (Devine and Caughlin, 2014). For example, when noticing aggression in social media communications, observers are likely to attribute the communicator’s reaction to “significant situational provocations” (legitimizing the act) for those of high status but as “crossing the impropriety” (and delegitimizing it) for those of low status (Geddes and Callister, 2007, p. 734). Thus, audiences considering engaging with a provocative post from a high-status venture can expect their engagement to be

⁶ We provide more exemplary tweets from our sample employing provocative language in Appendix A.2.

noticed by others, to be evaluated as credible, and to contribute to a desired online image (Toubia and Stephen, 2013). By contrast, engaging with provocative posts by low-status ventures could do the opposite—that is, their engagement goes unnoticed by others, is evaluated as lacking credibility, and contributes little to (or even damages) the desired image.

Third, provocative language may also antagonize others by questioning or violating the current social structure, triggering conflict between provocateurs and antagonists (Hensmans, 2003). Because sharing and liking are appraised as endorsements (e.g., Metaxas et al., 2015; Parmelee and Bichard, 2013), someone who shares or likes provocative material may likewise antagonize others.⁷ Thus, audience members may be apprehensive about retweeting material containing provocative language because endorsing it could leave them vulnerable to antagonists' responses (Gamson, 1989). However, this negative reaction to an audience member's engagement with a provocation is less threatening when it comes from high-status ventures because these ventures (and presumably audiences that engage with them) are granted more leeway in deviating from norms (e.g., Kohn, 1989; Phillips and Zuckerman, 2001; Swigert and Farrell, 1977).

Finally, the social risks of engaging with the provocatively framed tweet by a higher-status actor are mitigated by the potential of hiding behind that actor (Park and Westphal, 2013). This protection is weaker or non-existent for low-status actors. Additionally, because an audience member's endorsement of a post is likely to carry more weight when the content is provocative than when it is not (akin to taking sides in an argument), endorsing provocative material, compared with non-provocative material, is likely to strengthen the ingratiation effect of engaging with the post's originator (discussed in Section 3). As audiences give more importance to ingratiation with actors of high status (than those of low status), the benefits associated with endorsing provocative material are greater when originating from those of high status. We thus argue for status to be a boundary condition of the positive effect of provocatively framing online posts on attracting social media engagement and hypothesize as follows:

Hypothesis 2. New-venture status moderates the relationship between provocative language and audience engagement on Twitter, such that there is a positive relationship between provocative language and audience engagement for tweets by new ventures of higher status (i.e., VC-funded) but a negative relationship between provocative language and audience engagement for tweets by new ventures of lower status (i.e., not VC-funded).

5. Data and methods

5.1. Sample

We tested our hypotheses on a sample of 369,142 tweets by 268 US-based, VC-backed internet ventures founded between 2011 and 2015 that were active on Twitter. We sampled internet ventures because of their affinity for using social media (e.g., Ho et al., 2020; Ho and Vogel, 2014; Schiavone et al., 2014). We used data from CrunchBase, a widely adopted VC-funding database in management research (e.g., Block and Sandner, 2009; Ter Wal et al., 2016) because of its focus on tracking US internet industry ventures (especially Web 2.0 companies) (Block and Sandner, 2009). To capture authoritative venture capitalists who could consecrate a venture, we focused on ventures that reported funding by venture capitalists from the 2011 listing of reputable VC firms introduced by Lee et al. (2011).⁸ This sampling allowed us to compare audience reactions to tweets by ventures that have varying statuses but that are otherwise relatively homogeneous (i.e., VC-funded and not-yet-VC-funded ventures). We cleaned the data and retained only ventures for which the application programming interface (API) calls successfully retrieved information on their Twitter accounts. We eliminated ventures that did not meet a minimum activity threshold of 10 tweets. We further eliminated tweets that were retweets themselves to avoid confounding other authors' Twitter narrative styles with those of the sampled ventures. This sampling resulted in 369,142 tweets made by 268 ventures. Because the Twitter API limits the number of posts downloaded for one account to approximately 3200, we could not access tweets posted before VC funding for all sampled ventures. The final sample consists of 10,057 pre-funding tweets posted by 106 ventures and 359,085 post-funding tweets posted by all 268 ventures.⁹

5.2. Dependent variables

We used two established measures of audience engagement on social media in the management literature: shares (on Twitter called *retweets*) and *likes* (e.g., Gelper et al., 2021; Lee et al., 2018; Mallipeddi et al., 2021). “A Tweet that you share publicly with your followers is known as a Retweet. This is a great way to pass along news and interesting discoveries on Twitter” (Twitter, 2022b). “Likes are represented by a small heart and are used to show appreciation for a Tweet,” exemplifying the previously theorized endorsement nature of social media engagement in this context (Twitter, 2022a). Most social media platforms have engagement features similar to those on Twitter.

⁷ Some Twitter users, such as journalists, try to hedge against negative reactions to their likes and retweets by stating in their Twitter profiles that “retweeting is not endorsement.” However, it is unclear whether such disclaimers are effective in the light of powerful “guilt-by-association” mechanisms (e.g., Naumovska and Zajac, 2022).

⁸ In supplementary analyses, we also examined a broader sample—not limited to ventures funded by VC firms from the Lee et al. (2011) index—and explored the ventures' status heterogeneity (comparing ventures backed by high-tier VC firms, backed by lower-tier VC firms, and not having received VC funding).

⁹ We also analyze the 106 new ventures for whom we had pre- and post-funding tweets in our robustness checks.

5.3. Independent and interaction variables

5.3.1. VC funding

We followed the literature on status through VC affiliation (e.g., Pollock et al., 2010; Stuart et al., 1999) and used VC funding as an event that consecrates a venture and distinguishes high- from low-status ventures. The dummy variable *VC-funded* is equal to 1 if the venture has already received VC funding when posting a tweet, and 0 otherwise.¹⁰

5.3.2. Provocative language

In social media, ventures' online posts represent linguistic communication (Fisch and Block, 2021; Fischer and Reuber, 2014) that can be analyzed using computerized approaches. Computer software can use dictionaries to automatically detect specific vocabularies and identify the presence of dictionary-set words within given texts (e.g., Anglin et al., 2018a; Hubbard et al., 2018; Parhankangas and Renko, 2017). As linguistic frames manifest in word use, dictionary-based computerized text analysis has proved to be particularly useful in organizational research (Reid et al., 2023).

Given the absence of an established operationalization of provocative language in the social media space, we followed steps from the structured methodology of computer-aided text analysis (CATA) (for the CATA methodology, see McKenny et al., 2013; Short et al., 2010, 2018). CATA is an established approach within the entrepreneurship literature (e.g., Anglin et al., 2018b; Seigner et al., 2022). Following this approach, we began deductively, identifying existing constructs in the management and entrepreneurship literature relevant to provocation (Short et al., 2010). The construct previously operationalized that was most similar to provocation was nonconformance—to “act against or in contradiction to the prevailing standards, attitudes, practices, etc., of society or a group” (Hubbard et al., 2018, p. 1983) or to “question, change, or violate the social structure” (Zimmerman and Zeitz, 2002, p. 422). We thus complemented the existing dictionary of nonconforming terms used in traditional media when reporting on firms developed by Hubbard et al. (2018) (which included words like *misfit*, *rebel*, and *revolution*) with the terms *question*, *change*, and *violate*.¹¹ After that, we included all these previously mentioned terms' synonyms (using a thesaurus).

Following CATA, we further inductively identified words for our dictionary. In this step, we randomly selected half of all tweets from the initial data to identify the most commonly used words in venture tweets. The first author coded all 21,438 words with a frequency of 1000 (approximately 10 % of all words) within the subsample to identify relevant words—such as *riot*, *wtf*, and *jailbreak*—for our dictionary (e.g., *jailbreak* reflects tweeting about removing software restrictions in order to access paid software for free). To analyze face validity, we checked terms that might have several contextual meanings in ventures' online posts. Based on the central limit theorem, we inspected 30 random tweets for each such term to ensure that the flagged posts represented provocative language (i.e., expressions of aggression, disobedience toward regulations, use of swear words, antagonism, or other types of challenging social norms). An exemplary term eliminated within this process is *challenge* because, in the context of ventures' social media posts, the word also referred to start-up competitions instead of challenges to the status quo.

Finally, to validate the dictionary, the author team discussed the terms. Any inconclusive terms were further inspected for contextual validity with a random sample of 20 tweets per term. Three of the authors independently coded each term, after which we used these codes to calculate intercoder reliability. After this iterative process, Cohen's kappa was 0.98 for the dictionary. According to Landis and Koch (1977, p. 165), this magnitude of Cohen's kappa qualifies as “almost perfect.” We also assessed convergent validity—that is, “the extent to which the computer-aided text analytic word lists measure the construct of interest similarly to other validated measures of the same or a related construct” (McKenny et al., 2013, p. 167). There should be some correlation, though not above 0.5, given that this would indicate the need to collapse to a single measure (Short et al., 2010). Here, we can compare *provocative* language with dictionaries capturing *anger* and *negative emotions* from the established linguistic software Linguistic Inquiry and Word Count (LIWC) (e.g., Pennebaker et al., 2015). Correlations of *provocative* language with *anger* of 0.30 ($p < 0.001$) and *negative emotions* of 0.37 ($p < 0.001$) suggest that *provocative* language is a valid yet distinct measure.

The final dictionary for provocative language includes 176 words (presented in Appendix A.1). Following Hubbard et al. (2018), the linguistic variable (in this case, *provocative*) is a dummy with a value of 1 if at least one word from the dictionary is included within the tweet and 0 if no word from the dictionary is included.

5.4. Control variables

Following previous studies, we control for several variables on the tweet level. With two dummy variables, we control for whether a tweet includes a *link* to another website (Lee et al., 2018) and whether it *mentions* other accounts (it includes another account's name

¹⁰ In supplementary analyses, we show that our results are robust to using other status proxies, such as venture age and the ranking tiers of the consecrating VC.

¹¹ Given that Hubbard et al. (2018) developed their dictionary in a context where the general media write *about* firms rather than in a context of firms' own communications, we checked each of the 29 words in their dictionary for face validity in the context of ventures' tweets. We eliminated all terms that were not provocative (e.g., *differ*, *difference*, *different*, *dissimilar*, *distinct*, *original*, *rate*, *unlike*, *varied*). However, we still report this step because their efforts were helpful as a first dictionary-based approach to studying a construct similar to provocative language. Additionally, the terms *question* and *change* were only a starting point and were deemed non-provocative in the subsequent process of developing our dictionary. In Appendix A.1, we report all the terms in our final dictionary and italicize the words we retained from the Hubbard et al. (2018) nonconformance dictionary.

proceeded by the “@” character), as embedded content can be associated with social media engagement measures, such as retweets (Park and Kaye, 2019). We also control for the number of *hashtags*, such as “#entrepreneur” (Suh et al., 2010); *word count* with the total number of words within the focal tweet (Lee et al., 2018); and emotional language (Berger and Milkman, 2012; Heimbach and Hinz, 2016) by using LIWC (e.g., Tausczik and Pennebaker, 2010) to capture expressions of *positive emotions*, *negative emotions*, *anxiety*, *anger*, and *sadness*. Acknowledging the effect of gendered language in entrepreneurship (e.g., Lundmark et al., 2022; Wesemann and Wincent, 2021), we further employ LIWC to control for *female* expressions, such as *mum* or *girl*, and *male* expressions, such as *dad* or *boy*. We operationalize the variable *time to/since founding* as the difference between when a tweet was posted and the venture’s founding date.

Finally, we control for a venture’s *media visibility*. We used the news database Factiva (Dutta and Folta, 2016) to manually search for all media mentions of the venture’s name during the focal timeframe, given that media attention might be related to overall popularity and followership on social media (Aleti et al., 2019). We determined the number of articles per day in which a venture was mentioned and included a control for a cumulative count of media mentions, reflecting the ventures’ media visibility at the time of tweeting.

5.5. Descriptive statistics

On average, ventures in our sample are 3.53 years old and have been mentioned in 3.74 media articles when posting a tweet. A venture had a mean of 1377 tweets during the observation period, with the tweets receiving 4.52 retweets and 10.09 likes on average.¹² The average tweet contains 18.79 words, echoing best practices to keep tweets brief (Malhotra et al., 2012), and 5.35 % of all tweets use provocative language. Comparing this with other social media studies that have used field data with linguistic variables and a dummy operationalization, we observe that politicians use comparatively more attacking framing in their posts, ranging from 14.7 % on Instagram to 20.4 % on Twitter (Boulianne and Larsson, 2021). Table 1 shows the sample’s descriptive statistics on the tweet level and pairwise correlations.

5.6. Method of analysis

The data consist of an unbalanced panel of new-venture tweets. We applied fixed-effects Poisson estimation, in line with prior literature examining attention in the media (Kennedy, 2008). To account for the nature and distribution of our dependent variable—namely, count variable and overdispersion—we applied fixed-effects Poisson regression (using *xtpoisson* in Stata) with robust standard errors. We followed Wooldridge (1999), as the Poisson fixed-effects estimator is robust to almost every failure of the Poisson assumptions, including any variance-mean relationship, and effectively addresses serial correlation (Wooldridge, 2019).

To ensure that our results are not driven by multicollinearity, we centered troublesome variables and obtained identical results running a linear regression. After centering, all variables, except *negative emotions* (VIF = 2.92), were well below the conservative threshold of VIF < 2.5 (Johnston et al., 2018).

6. Results

6.1. Hypothesis testing

Table 2 details our models with fixed-effects Poisson regression estimates and robust standard errors. We show all individual regressions for our two dependent variables (i.e., retweets and likes). Models 1 and 2 contain only the control variables, Models 3 and 4 test the main effect and introduce the independent and moderator variables, and Models 5 and 6 test the hypothesized interaction effect.

Hypothesis 1 proposed that tweets from new ventures of higher status would draw higher audience engagement than those from ventures of lower status. In Models 3 and 4, we found a positive and significant effect of venture status (i.e., VC funding) on audience engagement (Model 3 predicting retweets: $b = 0.95$, $p < 0.01$; Model 4 predicting likes: $b = 1.33$, $p < 0.01$). Having received VC funding increases retweets by a factor (incidence rate ratio, which is $IRR = e^b$) of 2.59 (i.e., it increases retweets by 159 %) and likes by a factor of 3.79 (i.e., it increases likes by 279 %). These findings provide support for Hypothesis 1.

Hypothesis 2 proposed that new-venture status would moderate the relationship between provocative language and audience engagement on Twitter, such that there is a positive relationship between provocative language and audience engagement for posts by new ventures of higher status but a negative relationship between provocative language and audience engagement for posts by new ventures of lower status. Both models find a positive and significant interaction coefficient (Model 5 predicting retweets: $b = 0.96$, $p < 0.01$; Model 6 predicting likes: $b = 0.73$, $p < 0.01$). Posts with provocative language (vs. posts without provocative language) by low-status ventures (i.e., without VC funding) have lower retweets by a factor of $e^{b_{Provocative}} = 0.58$ (i.e., a reduction by 42 %) and likes by a factor of 0.62 (i.e., a reduction by 38 %). By contrast, for posts by ventures that have gained status (i.e., obtained VC funding), provocative language increases retweets by a factor of $e^{b_{Provocative} + b_{VC-funding} \times Provocative} = 1.52$ (i.e., it increases retweets by 52 %) and likes by a factor of 1.29 (i.e., it increases likes by 29 %). These findings provide support for Hypothesis 2.

¹² These numbers are consistent with the recognition that high levels of retweeting are expected only for very popular accounts (Jenders et al., 2013).

Table 1
Descriptive statistics and pairwise correlations.

Variables	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1 Retweets	4.52	123.14	1.00																
2 Likes	10.09	151.95	0.89***	1.00															
3 Provocative	0.05	0.23	0.01***	0.02***	1.00														
4 VC-funded	0.97	0.16	0.01***	0.01***	0.00	1.00													
5 Mention	0.23	0.42	-0.02***	-0.04***	-0.06***	-0.03***	1.00												
6 Link	0.76	0.43	-0.01***	-0.04***	0.05***	0.02***	-0.68***	1.00											
7 Hashtags	0.75	1.04	-0.02***	-0.03***	0.00	0.00 ⁺	-0.31***	0.23***	1.00										
8 Word Count	18.79	5.66	-0.00*	-0.01***	0.06***	0.04***	-0.34***	0.40***	0.13***	1.00									
9 Positive Emotions	4.98	7.86	-0.01***	-0.02***	-0.07***	-0.02***	0.43***	-0.44***	-0.17***	-0.40***	1.00								
10 Negative Emotions	0.73	2.28	0.01***	0.03***	0.30***	0.01***	0.02***	-0.04***	-0.03***	0.00	-0.07***	1.00							
11 Anxiety	0.16	0.99	0.01***	0.01***	0.03***	0.01***	-0.03***	0.02***	0.02***	0.01***	-0.04***	0.46***	1.00						
12 Anger	0.16	1.00	0.02***	0.03***	0.37***	0.01***	-0.04***	0.02***	0.00	0.00	-0.04***	0.46***	0.11***	1.00					
13 Sadness	0.20	1.10	0.00*	0.01***	0.04***	0.01***	0.08***	-0.08***	-0.04***	0.02***	-0.04***	0.52***	0.03***	0.01***	1.00				
14 Female	0.14	1.02	0.01***	0.03***	-0.00	-0.02***	-0.02***	0.00*	-0.01***	0.01***	-0.00	0.00*	-0.00	0.01***	-0.00	1.00			
15 Male	0.14	1.08	0.02***	0.03***	0.01***	-0.01***	0.01***	-0.02***	-0.03***	-0.00*	0.01***	0.01***	-0.00**	0.01***	-0.00	0.04***	1.00		
16 Time to/since Founding	42.41	17.65	-0.00**	-0.02***	0.02***	0.34***	-0.17***	0.16***	0.08***	0.11***	-0.12***	0.02***	0.02***	0.02***	0.01***	-0.02***	-0.02***	1.00	
17 Media Visibility	3.74	10.37	-0.01***	-0.02***	-0.00*	0.06***	-0.04***	0.02***	0.02***	0.04***	-0.03***	0.02***	0.02***	0.00**	0.02***	-0.01***	-0.00	0.15***	1.00

369,142 observations by 268 ventures.

*** $p < 0.001$.

** $p < 0.01$.

* $p < 0.05$.

+ $p < 0.1$.

Table 2
Fixed-effects poisson models for predicting retweets and likes.

	(1)	(2)	(3)	(4)	(5)	(6)
Variables	Base Model (Retweets)	Base Model (Likes)	Main Effect (Retweets)	Main Effect (Likes)	Full Model (Retweets)	Full Model (Likes)
Mention	−3.41*** (0.35)	−3.12*** (0.33)	−3.40*** (0.35)	−3.11*** (0.33)	−3.40*** (0.35)	−3.11*** (0.33)
Link	−0.52*** (0.14)	−0.63*** (0.05)	−0.50*** (0.14)	−0.61*** (0.06)	−0.50*** (0.14)	−0.61*** (0.06)
Hashtags	−0.01 (0.07)	−0.05 (0.12)	−0.01 (0.07)	−0.06 (0.12)	−0.01 (0.07)	−0.06 (0.12)
Word Count	0.01 (0.02)	0.00 (0.01)	0.01 (0.02)	0.00 (0.01)	0.01 (0.02)	0.00 (0.01)
Positive Emotions	−0.02** (0.01)	−0.01*** (0.00)	−0.02** (0.01)	−0.01*** (0.00)	−0.02** (0.01)	−0.01*** (0.00)
Negative Emotions	−0.01 (0.01)	−0.01 (0.01)	−0.03 (0.02)	−0.02 (0.02)	−0.03 (0.02)	−0.02 (0.02)
Anxiety	0.04 (0.03)	0.02 (0.02)	0.06 (0.04)	0.03 (0.03)	0.06 (0.04)	0.03 (0.03)
Anger	0.06 (0.04)	0.03 (0.03)	0.05 (0.03)	0.02 (0.03)	0.05 (0.03)	0.02 (0.03)
Sadness	0.02** (0.01)	0.01 (0.01)	0.03* (0.01)	0.02 (0.01)	0.03* (0.01)	0.02 (0.01)
Female	−0.01* (0.01)	0.00 (0.00)	−0.01* (0.01)	0.00 (0.00)	−0.01* (0.01)	0.00 (0.00)
Male	0.01+ (0.01)	0.02*** (0.00)	0.01+ (0.01)	0.02*** (0.00)	0.01+ (0.01)	0.02*** (0.00)
Time to/since Founding	−0.01 (0.01)	−0.00 (0.02)	−0.02 (0.01)	−0.01 (0.02)	−0.02 (0.01)	−0.01 (0.02)
Media Visibility	0.02 (0.01)	0.02 (0.01)	0.02 (0.01)	0.02 (0.01)	0.02 (0.01)	0.02 (0.01)
Provocative			0.42* (0.21)	0.25* (0.13)	−0.54* (0.21)	−0.48+ (0.26)
VC-funded			0.95** (0.36)	1.33** (0.44)	0.90* (0.36)	1.30** (0.44)
VC-funded × Provocative					0.96** (0.31)	0.73** (0.28)
Observations	369,142	369,142	369,142	369,142	369,142	369,142
Number of Ventures	268	268	268	268	268	268
Firm FE	YES	YES	YES	YES	YES	YES
Wald Chi2	1606	8146	2391	13,815	2371	13,775

Robust standard errors in parentheses.

*** $p < 0.001$.

** $p < 0.01$.

* $p < 0.05$.

+ $p < 0.1$.

6.2. Post-hoc analyses

Our theorizing and results established that a venture's status and provocative language matter in driving audience engagement on social media and that status is an important boundary condition of the previously identified positive effect of provocation on audience engagement online. In developing these analyses, we also recognized that there might be more nuances to our studied phenomenon, which can offer further opportunities for enriching insights through a pragmatic empirical theorizing approach using post-hoc analyses (Shepherd and Suddaby, 2017).

First, whereas provocation is defined as language violating norms and values, our combination of deductive and inductive operationalization of provocation revealed that new ventures' provocative language on Twitter could manifest in various ways—through, for example, the use of aggressive language, antagonism, or swear words—which offers opportunities for further elaboration. Accordingly, we wanted to determine whether there are differences in the effects of particular subdimensions (e.g., swearing) of provocative language.¹³ We thus inductively coded all words within our initially established word list and identified five distinct subdimensions included in our dictionary of provocative language. These are words expressing *aggression*, disobedience toward *regulations*, use of *swear words*, *antagonism*, and other types of the challenging of *norms*. Appendix A.1 shows how our words are

¹³ We thank an anonymous reviewer for the idea of identifying and analyzing heterogeneity within our dictionary.

categorized into these subdimensions, and Appendix A.2 provides exemplary tweets to better illustrate the subdimensions. Table 3 (Models 1 and 2) details the results for the subdimensions of provocative language and their interactions (Models 3 and 4) with VC funding in explaining audience engagement on social media. The results suggest that expressions referring to *aggression*, disobedience toward *regulations*, and *antagonism* seem to be the strongest drivers of the positive interaction between VC funding and provocative framing for both likes and retweets. *Swear words* were less effective (i.e., they show a positive and significant interaction for likes, but not for retweets), and expressions referring to other types of challenging *norms* were not significant.

Additionally, we recognize that whereas consecration is an important event that shifts a venture's status, there are also other types of status markers¹⁴ or gradients of status among the consecrated ventures in our sample. Transferring the notion of superstar status of entrepreneurs (Obschonka et al., 2017), some ventures also obtain funding from 'superstar' venture capitalists, described by practitioners as the top tier (e.g., Dealroom.co, 2021; Espinal, 2013), which might be reflected in even higher status. Accordingly, we examined status using a categorical variable that distinguishes between ventures without VC funding, ventures with VC funding from a venture capitalist in the bottom 80 % of the Lee et al. (2011) index, and ventures with VC funding from at least one venture capitalist in the top 20 % of the index (please see Models 5–8 in online Appendix B.2 for more details).¹⁵ Slope-difference tests revealed that the differences in estimates between the tiers were significant in all models ($p < 0.05$). In summary, we found positive and significant main effects of VC funding that were also significantly higher for funding by a venture capitalist at the top of the index versus VC funding in general. Similarly, we found positive and significant interactions, with the positive effect of provocative language on audience engagement being more positive when a venture was funded by a venture capitalist at the top of the index versus funded by a lower-ranked VC.¹⁶

6.3. Robustness checks

We employed several robustness checks and present three key tests here (please see online Appendix B.3 for details and additional robustness checks).¹⁷ First, we examined whether the results might be driven by ventures systematically changing their tweeting behavior after receiving funding. We ran a t -test comparing the use of provocative language in tweets posted before and after ventures secured VC funding. The t -test showed a small and statistically non-significant change (two-tailed $p = 0.17$), indicating that this change did not drive the results.

Second, we employed a split-sample approach, testing the direct effects of provocative language in the pre- and post-VC-funding subsamples. This approach allows that VC funding alters *all* covariate estimates. Before VC funding, we found a marginally significant negative relationship between provocative language and retweets ($b = -0.20$; $p = 0.09$) and a nonsignificant relationship in explaining likes. After VC funding, we found positive and significant direct effects of provocative language on both retweets and likes.

Finally, we ran pooled random-effects Poisson estimations using the Chamberlain-Mundlak approach to more closely approximate fixed effects. We included more venture-level controls here because random-effects estimation does not automatically control for time-invariant omitted variables. We controlled for the total number of Twitter *followers* at the time of data retrieval of the respective venture (Albrecht et al., 2020).¹⁸ We further controlled for *total funding amount*, *total funding rounds*, and *venture founding location*, all taken from Crunchbase, and we included a dummy variable specifying whether the tweets were sent by a business-to-business (B2B) or by a business-to-consumer (B2C) venture. The location is operationalized with dummy variables for the US states. The Chamberlain-Mundlak approach also includes, besides the initial covariates, the averages of the time-varying variables as controls. The results fully support our initial findings.

¹⁴ Beyond acquiring status via a consecrating event such as obtaining VC funding, new ventures can also increase social standing in other ways, such as over time. Therefore, we conducted further analyses to examine the effect of this alternative status proxy (please see Models 1–4 in online Appendix B.2 for more details). The interactions between provocative language and venture age in explaining audience engagement on social media are consistent with our initial results using VC funding as a proxy for venture status.

¹⁵ Because 20 % is an arbitrary boundary, we ran the same regression with the top 10 %, and the results remained consistent (please see Models 9–12 in online Appendix B.2 for more details).

¹⁶ Additionally, we followed a reviewer's suggestion to look for differences between business-to-business (B2B) and business-to-consumer (B2C) ventures. Results indicated, at least with marginal significance, that B2B ventures, in contrast to B2C ventures, do not increase audience engagement by employing provocative language in their tweets, and that the positive effect of VC funding on audience engagement on social media is more positive for B2B ventures than for B2C ventures (please see Models 13–16 in online Appendix B.2 for more details).

¹⁷ In additional robustness checks, we ran our initial models (1) using only the 106 ventures where we had pre- and post-VC funding tweets to check for within-venture differences (please see Models 21–24 in online Appendix B.3 for more details); (2) using all ventures, regardless of being listed on the VC index, to use a more generous sampling strategy (online Appendix B.3, see Models 25–28); and (3) using our main sample but Winsorizing our dependent variables at the 99th percentile to mitigate the effect of outliers (online Appendix B.3; see Models 29–32).

¹⁸ We, alternatively, replaced *time to/since founding* in our initial models with a *time × followers count at the time of data retrieval* interaction or *log (time+1) × followers count at the time of data retrieval* interaction, including the respective main effects, as additional controls to better model growth in followership over time. This is because the Twitter API only permits gathering the account's number of followers at the time of data retrieval, a limitation we share with similar studies (e.g., Albrecht et al., 2020; Antretter et al., 2019; Jin et al., 2017; Yang and Berger, 2017). Approximating follower growth this way, we found no substantive change in the results when we included either of these controls (please see Models 9–16 in online Appendix B.3 for more details). To account for discontinuities in time effects, we also included year-quarter dummies as additional controls (online Appendix B.3; see Models 17–20).

Table 3
Dictionary subdimensions.

	(1)	(2)	(3)	(4)
Variables	Main Effects (Retweets)	Main Effects (Likes)	Interactions (Retweets)	Interactions (Likes)
VC-funded	0.95** (0.36)	1.33** (0.44)	0.90* (0.35)	1.29** (0.44)
Aggression	0.07 (0.12)	0.13 (0.09)	−0.51 ⁺ (0.29)	−0.56* (0.23)
VC-funded × Aggression			0.58* (0.27)	0.69** (0.24)
Regulations	−0.06 (0.07)	0.02 (0.06)	−1.76*** (0.29)	−1.49* (0.61)
VC-funded × Regulations			1.70*** (0.28)	1.51* (0.62)
Swear Words	−0.20 (0.15)	−0.01 (0.09)	−0.18 (0.42)	−0.43* (0.20)
VC-funded × Swear Words			−0.02 (0.42)	0.42* (0.20)
Antagonism	1.14*** (0.31)	0.76* (0.33)	−0.04 (0.28)	−0.10 (0.27)
VC-funded × Antagonism			1.19** (0.42)	0.86* (0.42)
Norms	−0.14 (0.20)	0.02 (0.09)	−0.49 (0.38)	0.23 (0.18)
VC-funded × Norms			0.35 (0.42)	−0.21 (0.22)
Observations	369,142	369,142	369,142	369,142
Number of Ventures	268	268	268	268
Firm FE	YES	YES	YES	YES
Main Analysis Controls	YES	YES	YES	YES
Wald Chi2	3529	12,482	3745	12,753

Robust standard errors in parentheses.

*** $p < 0.001$.

** $p < 0.01$.

* $p < 0.05$.

⁺ $p < 0.1$.

7. Discussion

Communicating with external audiences is key for new ventures (e.g., Fisher et al., 2017), and social media platforms can be a cost-effective means of delivering such communications (e.g., Fischer and Reuber, 2011, 2014). However, there is limited research on how new ventures can communicate effectively on these platforms, and entrepreneurs may be tempted to imitate the social media behavior of superstar entrepreneurs (Obschonka et al., 2013, 2017) or rely on findings from other contexts, which suggest that provocative communication drives audience engagement online. In this article, we have cautioned against generalizing from these findings in contexts where the communicator typically is of high status, such as established firms (e.g., Porter and Golan, 2006) or politicians (e.g., Boulianne and Larsson, 2021; Meeks, 2020), to the new-venture context, where the communicator typically does not begin with a high status (Milanov and Shepherd, 2013; Pollock et al., 2015).

We theorized and, in a panel data set of 369,142 tweets by 268 new ventures, provided empirical evidence that new-venture status influences how audiences react to posts containing provocative language. Not only do tweets from new ventures attract more audience engagement when these ventures have gained status by having acquired VC funding; the differences in status also affect the relationship between provocative language and audience engagement on Twitter: in tweets by low-status ventures, provocative language decreased audience engagement, whereas in tweets by high-status ventures, provocative language increased audience engagement. Our post-hoc tests revealed that there are nuances in the gradients of status and that the underlying interaction effect was driven mainly by provocative language expressing aggression, disobedience toward regulations, and antagonism. We further discovered that social media engagement was positively associated with second-funding-round performance. With these findings, we contribute to studies on new-venture communication with external audiences, including the nascent entrepreneurship literature around audience engagement on social media, and to the conversation around the nonfinancial effects of VC funding.

7.1. Contributions

First, there is scholarly consensus in the entrepreneurship literature that new-venture communication is vital to enrolling stakeholders (Fisher, 2020; Fisher et al., 2020; Mitchell et al., 2021), including that media coverage is an important positive driver of new-venture legitimacy (Petkova et al., 2013; Pollock and Rindova, 2003). Ventures should tell attractive stories about themselves to increase market acceptance (Martens et al., 2007; Pan et al., 2020). However, ventures increasingly use social media to communicate

with external audiences (e.g., Fischer and Reuber, 2011, 2014; Howard et al., 2021). In this context, there are indications that different rules apply for what constitutes effective communication (Etter et al., 2019). Superstar entrepreneurs' tweets tend to display a "rule-breaking" attitude (Obschonka et al., 2017), and such provocative online communication approaches have been found to increase audience engagement with established politicians (Boulianne and Larsson, 2021; Fine and Hunt, 2021) or brands (e.g., Sabri, 2017). We, too, found that provocative language can be positively associated with audience engagement on social media. However, we also discovered circumstances where provocative language was negatively associated with audience engagement. As we theorized, status is an important boundary condition of the relationship between provocative language and audience engagement on social media. Our findings thus validate previously documented positive effects of provocative language on social media engagement for comparatively high-status communicators (brands, companies, and politicians) while also demonstrating how provocative language can have the opposite effect. The latter is especially crucial in early-stage entrepreneurship, where high status cannot be taken for granted (Milanov and Shepherd, 2013) and ventures need to especially consider their liabilities of newness (Stinchcombe, 1965).

Second, while the literature on social media use in entrepreneurship has documented various beneficial outcomes for new ventures (e.g., Antretter et al., 2019; Tumasjan et al., 2021), there is still limited understanding of why new ventures differ in their ability to engage with social media audiences (cf. Roccapiore and Pollock, 2022). Our results, including our post-hoc analyses, reveal that (1) characteristics of the venture, such as whether they are VC-funded, and even the more nuanced ranking of their funding venture capitalists, as well as (2) characteristics of the message, such as how it is linguistically framed, affect audience engagement with new-venture posts. Furthermore, our results show that the tendencies of social media audiences to engage with ventures' posts seem determined not only by the individual effects of such characteristics but also by their *interactions*. For example, social media audiences engage with posts including provocative language *differently* depending on whether the posting venture is of high status or of low status. This implies that on social media, as in other entrepreneurial online settings (e.g., Seigner et al., 2022) and in offline contexts (e.g., Rhee and Fiss, 2014), theorizing audience reactions to social media communication should consider not only factors influencing communication separately but also their potential interdependencies.

Finally, research has documented the role of VC funding in ventures' resource mobilization (Clough et al., 2019) as well as its many benefits for ventures beyond its direct financial impact, such as in attracting talent (Hellmann and Puri, 2002; Vanacker et al., 2013), securing alliance partners (Pollock and Gulati, 2007), and drawing attention in traditional media outlets (Petkova et al., 2013). Our study extends this strand of VC research by providing evidence that (1) VC funding is a valuable status marker that carries over to the social media context, and (2) VC funding also influences audience reactions to ventures' provocative language on social media. While research has suggested that some status markers can transfer from off- to online contexts (Levina and Arriaga, 2014), our study provides empirical evidence that VC funding is an offline event that has implications for social media (Wang et al., 2021). On this basis, our post-hoc analysis hints at further such links between off- and online contexts. Namely, social media engagement between financing rounds is positively associated with monetary performance offline (i.e., the funding amount in the second round). Taken together, these findings extend our current knowledge of the interdependence between the off- and online spaces for new ventures in the context of their VC funding.

7.2. Limitations and future research

Our study has some limitations that offer future research opportunities. Our data do not allow for analysis of heterogeneity in the social media audience. We cannot see whether, for subgroups on social media, reactions to new ventures' tweets differ systematically. As discussed, the potential audience for a post is unknown a priori, audience diversity is part of social media, and the possibility of customizing posts is limited (e.g., Fischer and Reuber, 2011). Still, sub-audiences might react differently to provocative language. One of our post-hoc analyses indicated that, compared with B2C ventures, posts by B2B ventures might not increase audience engagement by using provocative language. If B2B and B2C ventures have different audiences, this finding implies that sub-audiences might hold different standards. Future research could examine whether and why audience characteristics influence reactions to new ventures' social media communication. It would also be interesting to see how audience differences across platforms influence our studied effects, for example by investigating more professional contexts for social media audiences on platforms such as LinkedIn.

Moreover, at least two empirical restrictions might limit our findings. The first is due to the Twitter API. Sharing this limitation with other Twitter studies (e.g., Albrecht et al., 2020; Antretter et al., 2019; Jin et al., 2017; Yang and Berger, 2017), we could not control for the exact number of a venture's followers over time for each post, as we only had access to the number of followers at the time of data collection. We addressed this issue by controlling for ventures' (traditional) media visibility and, in our robustness checks, interacting the number of followers of a venture at the moment of data retrieval with venture age to approximate the development in the number of followers over time. Furthermore, we used quarterly dummies to account for potential discontinuities. We consistently found robust results. Still, our approaches remain approximations. Future research could set up recurring—daily, maybe even hourly—API calls over an extended period to more precisely determine effects attributable to the number of followers at any given time.

The second empirical restriction is our focus on a select sample of ventures. Although this allowed us to use VC funding as a proxy for status, and although we also investigated alternative measures (e.g., venture age and VC tiers), we suggest caution in generalizing to other ventures or status measures. The VC status-tier analysis shows that it matters who funds ventures and suggests that there are gradients of status that influence our observed effects (i.e., receiving funding by a top-tier VC [vis-à-vis a lower-tier VC firm] magnifies our reported effects). This additional finding raises questions about how the effect of provocative language changes as status increases beyond the maximum levels we could operationalize here. For example, would superstar entrepreneurs gain even greater audience engagement on social media from their provocative language?

In addition, our findings raise questions about the effects of other status markers, for example visible affiliations with prominent partners (Milanov and Shepherd, 2013) or prestigious partners (Stuart et al., 1999) or from winning contests (Claussen et al., 2022), which could be especially valuable for new ventures not seeking VC funding. Future research could examine whether and how our model holds for ventures that gain social status through these or other means.

Additionally, our sample selection does not allow us to speak directly to other social media users. While we thus want to be careful not to claim that our findings apply equally to other settings, extending our results might have implications for the effects of provocation on audience engagement in political science and marketing (e.g., Boulianne and Larsson, 2021; Fine and Hunt, 2021; Sabri, 2017). If we would, more generally, acknowledge that the status of social media users is an important factor in how provocation influences their audience engagement, this boundary condition could potentially extend to politicians and brands, too. However, in polarized contexts, such as politics (e.g., Hare and Poole, 2014; Poole and Rosenthal, 1984), what is considered provocative varies between political ideologies (e.g., Kalmoe, 2014), and the risks and rewards of provocation may vary depending on whom the provocation addresses (e.g., attacking those in one's own party may be risky, whereas attacking someone in a rival party may carry little risk of serious pushback, at least among those who share the communicator's political beliefs). Therefore, it would be interesting for future research to adjust our theorizing and transfer it to other contexts, such as politics and marketing, to examine the generalizability of our insights through further empirical studies.

Finally, we caution against extrapolating our study's results beyond audience engagement with individual tweets. While we found that provocative language was positively associated with a tweet's engagement for VC-funded ventures, this does not mean (1) that provocative language is the only potential influencing factor or that (2) provocative language is an advisable dominant strategy in the long run. Indeed, marketing studies show that positive and emotional language drive the sharing of content online even when controlling for the content's nature (Berger and Milkman, 2012; Milkman and Berger, 2014). In this regard, entrepreneurship research has documented that, on average, entrepreneurs talk more positively on Twitter than the general population (Tata et al., 2017), although without assessing the effectiveness of their approach with respect to social media engagement. Interestingly, our control variable for positive emotional language indicated that positive framing slightly decreased engagement for the ventures in our sample.

We studied provocative language because it represents a particularly prominent, current, and widely discussed phenomenon within social media, but future research could advance our understanding of effective social media communication by examining other linguistic drivers of social media engagement for ventures. Adopting a long-term perspective on provocation as a strategy, we also caution that, over time, provocative posts manifest in digital footprints (Fisch and Block, 2021). Recurring Twitter tantrums aimed at generating engagement—even if seen as suitable at the time—might have detrimental long-term effects. While our post-hoc analyses revealed that social media engagement was associated with higher funding in the second funding round of the ventures in our sample, our study still calls for more research on how ventures can use social media to effectively communicate with stakeholders and how this affects their (financial) performance.

8. Conclusion

In this study, we set out to answer whether tweeting provocatively, as some superstar entrepreneurs do, engages audiences on social media. In this pursuit, we theorized and found that venture status plays an important role in such a communication strategy. High status, which we operationalized as having received VC funding, leads to increased audience engagement with a venture's posts and influences how social media audiences respond to provocative tweets. While tweets by VC-funded ventures attracted more engagement when they contained provocative language, such language decreased audience engagement with tweets by non-VC-funded ventures. In the end, the answer to our question “Do ventures attract audience engagement by tweeting like Elon?” appears to be “It depends on their status!”

CRedit authorship contribution statement

Benedikt David Christian Seigner: Conceptualization, Data curation, Formal analysis, Methodology, Writing – original draft, Writing – review & editing. **Hana Milanov:** Conceptualization, Methodology, Resources, Writing – original draft, Writing – review & editing. **Erik Lundmark:** Conceptualization, Methodology, Writing – original draft, Writing – review & editing. **Dean A. Shepherd:** Conceptualization, Writing – review & editing.

Data availability

Data will be made available on request.

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Appendix A

Table A.1

Provocative language dictionary clustered in five subdimensions.

Aggression

aggress*, assault*, attack*, battle*, beast*, beat*, bomb*, break*, brutal*, bully*, bust, collapse*, combat*, conquer*, destroy*, doom*, downfall*, eliminate*, enem*, eradicate*, escalate, escalation, fight*, gladiator, harm, harmful, hate, hated, hating, hostile*, impose, imposes, insult*, intrud*, invad*, kill*, knockout*, nemesis, provocat*, *radical**, raider*, rampage, rant, reveng*, riot*, ruin*, ruthless*, savag*, scratch*, takeover*, terrify, tortur*, treacherous, tyrann*, wack, warfare, weapon*, yell*

Disobedience Toward Regulations

advers*, arrest*, cheat*, convict*, corrupt*, crime*, criminal*, discriminat*, explosiv*, fake, fraud*, hijack*, illegal*, jailbreak*, jailbroke*, lawsuit*, mafia*, marijuana, murder*, phish*, phony, piracy*, poison*, psycho, psychopath*, psychos, punish*, rob, robbery, sanction*, spoof*, steal*, suspect*, theft*, unconstitutional*

Swear Words

ass, asshole*, boob*, bum, crap, crappy, curse, cursed, cursing, damn, fck*, fu, fuck*, jerk, junk*, omfg, pee, peeing, pees, piss*, shut up, wtf

Antagonism

absurd*, against, anti*, block, bogus, boycott*, conflict*, controvr*, critic*, debunk, denial*, deny, disput*, evil*, interrupt*, noncompl*, *nonconform**, oppos*, protest*, refus*, *revolution**, sabotag*, unaccept*, undermin*, unsustain*, violat*

Other Types of Challenging Norms

abus*, alcoholic*, annoy*, bad, blacklist, booz*, breitbart*, cheeky, crash*, crazy, creep*, disgust*, disregard*, disturb*, drinker*, dropout*, drunk*, freak*, hangover, hungover, inappropriat*, mess, *misfit**, *mismatch**, naughty, prank*, punk, punks, *rebel**, *renegad**, rude, shock*, troubl*, unauthoriz*, wikileaks

Notes. Asterisks were used for truncation. Words from the dictionary by Hubbard et al. (2018) are *italicized*.

Table A.2

Exemplary use of different provocative framing in new ventures' tweets.

Aggression

- "I *hate* when I stop to let someone cross the street and they decide to do their best impression of a snail." — ***
- "There are strategic *attacks*, and then there is tactical *warfare*" @*** on the #DNCleak via @*** https://t.co/****

Disobedience Toward Regulations

- Stolen card info is good if you're an online *criminal*, but that plus personal info about the victim is even better https://t.co/****
- The Beautiful, Intriguing, and *Illegal* Ways to Map the Internet http://t.co/**** via @*** #dataviz

Swear Words

- "Fire the *assholes*. That's my refrain." - @*** #LetUsEffUpToo
- Do you fight dirty? Yeah, *Fuck* yeah. Why CrossFit is so litigious https://t.co/**** via @***

Antagonism

- The new #RoyalBaby will have a lower hospital bill than an uninsured U.S. baby #*absurd* @***http://t.co/**** http://t.co/****
- *Unacceptable* to see new law allowing business discrimination against gays in #Indiana. Bigotry based on love is unjust and inhuman.

(continued on next page)

Table A.2 (continued)

Other types of challenging norms

- Throwing a New Years (*hangover*) brunch? Here's how to throw a glam first 2017 party. https://t.co/****https://t.co/****
- "Professor: Any questions? Me: Why are you such a *bad* teacher?" — ***

Notes. The words from the respective sub-dictionaries of provocative language are *italicized*. The tweets are anonymized.

Appendix B. Supplementary analyses

Supplementary analyses to this article can be found online at <https://doi.org/10.1016/j.jbusvent.2022.106282>.

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