The Social Power of Narcissists in Mass Customization

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Abstract

It has become standard practice for consumers to customize products instead of choosing off-the-shelf solutions. A new practice is that consumers can directly share and discuss their customized products with their peers via social product configurators. We examine how the type of communication affects peer decision-making and satisfaction in such configurators. Drawing on research on mass customization, electronic word of mouth, and narcissism, we propose that narcissistic communication is crucial to understanding the effect of a shared configuration. A series of three studies demonstrates that consumers scoring high (vs. low) on narcissism are more likely to share their customized product online as a sample configuration and to use I-centered communication to describe that configuration. Such narcissistic communication makes peers adjust their own customized product to the sample configuration and to evaluate their own product less favorably. These findings suggest that narcissistic communication influences consumers' decision-making by increasing the likelihood to conform, potentially negatively impacting consumer satisfaction. The social power of narcissists has implications for both marketing research and practice.

Keywords: communication style, electronic word of mouth, mass customization, narcissism, online social networks, social product configurator

Introduction

Customizing products and services based on individual preferences has become common practice. Manufacturers have begun implementing social product configurators that allow consumers to easily share, discuss, and improve their customized products online on social networks (SNs). For example, consumers can configure a car and directly share and discuss the configuration with peers on Facebook. Thus far, however, little is known about the consequences of integrating elements of social interaction into mass customization systems (Franke, Keinz, & Schreier, 2008; Schlager, Hildebrand, Häubl, Franke, & Herrmann, 2018). Which shared configurations are most influential? What are the behavioral consequences for peers when processing such information?

Consumers are spending ever more time online. As a result, they are increasingly flooded with information and appraisal, not only from firms but also from peers. Widely accessible online social networks (SNs) such as Instagram or Twitter have made electronic word of mouth (eWOM) proliferate in recent years (Berger, 2014). Providing information online through eWOM enables consumers to communicate about products, services, and brands (Rosario, Sotgiu, De Valck, & Bijmolt, 2016). A 2015 global consumer survey found that over 80% of consumers trusted recommendations from friends and family while two-thirds relied on opinions from unknown consumers posted online (Nielsen, 2015). The latter share is expected to grow even further due to the increasing use and integration of SNs. Whereas much is known about the consequences of eWOM and its underlying processes (Berger, 2014; Chevalier & Mayzlin, 2006; Eisingerich, Chun, Liu, Jia, & Bell, 2015; Hennig-Thurau, Gwinner, Walsh, & Gremler, 2004), less attention has been paid to which communication types by which consumers are more influential (Luangrath, Peck, & Barger, 2017; Packard & Berger, 2017). Exploring this issue, we propose that narcissism is key to understanding the effectiveness of eWOM.

Narcissism is a relatively prevalent personality dimension (Emmons, 1984; Raskin & Terry, 1988). It denotes unjustified conceit and implies excessive motivation to self-enhance (Lee, Gregg, & Park, 2013). Narcissism entered the field of consumer psychology through the seminal work of Sedikides, Gregg, Cisek, and Hart (2007), who famously argued that it is "the I that buys." While explored in depth in psychology, narcissism as a relatively prevalent consumer trait is receiving increasing attention in marketing (de Bellis, Sprott, Hermann, Bierhoff, & Rohmann, 2016; Kashmiri et al.,

2017). Although narcissists supposedly use more first-person singular ("I" and "me") than first-person plural pronouns ("we" and "us") to draw attention to themselves (Raskin & Shaw, 1988), this has not been corroborated by more recent research (e.g., Carey et al., 2015; Holtzman et al., 2019).

Our research integrates insights from eWOM and narcissistic communication into the mass customization domain. A pilot study and two experimental studies examine how narcissistic communication impacts peer decision-making and satisfaction in social product configurators. We draw on and contribute to three literature streams—eWOM, mass customization, and narcissism —by demonstrating that narcissistic (vs. non-narcissistic) communication in social product configurators is more influential while decreasing consumers' satisfaction with their customized products.

Theoretical Background and Hypotheses

Electronic Word of Mouth (EWOM) and Social Product Configurators

EWOM is not only one of the most significant developments in contemporary consumer behavior (Rosario et al., 2018) but also one of the most important sources of consumer decision-making (Litvin, Goldsmith, & Pan, 2008). EWOM, or more specifically online reviews, can greatly impact sales (Chevalier & Mayzlin, 2006; Chintagunta, Gopinath, & Venkataraman, 2010; Dellorcas, Zhang, & Awad, 2007; Liu, 2006; Moore, 2015; Zhu & Zhang, 2010). The effectiveness of eWOM differs across products, metrics, and platforms (e.g., the effectiveness of eWOM in SNs is stronger if eWOM receivers can assess their own similarity with eWOM senders; Rosario et al., 2016). Consumers exchange information with other consumers online for different reasons, including the desire for social interaction and the opportunity to enhance their own self-worth (Hennig-Thurau et al., 2004). Research has analyzed the linguistic aspects of eWOM. It has examined the influence of implicit versus explicit endorsements on purchase intention (Packard & Berger, 2017) and has investigated whether expressing subjectivity in online reviews enhances persuasion (Liu, Ozanne, & Mattila, 2018). Research has also examined how textual paralanguage affects SNs (e.g., emojis and vocalizations like "haha"; Luangrath et al., 2017), as well as the effects of linguistic mimicry (Moore & McFerran, 2017). Nevertheless, the impact of different communication styles remains unclear.

Our research combines eWOM with mass customization (i.e., social product configurators). Doing so is worthwhile as integrating social sharing into mass customization systems is a novel trend across industries and markets (Gandhi, Magar, & Roberts, 2014). For example, car manufacturers (e.g., Porsche and Land Rover) or sportswear manufacturers (e.g., Nike and Oakley) now provide consumers with web-based tools to easily share, discuss, and improve their configured products on SNs like Facebook, LinkedIn, or Twitter (see Appendix A). Typically, consumers configure products and can then share a commented link on their customization via their SN profile. So far, research has focused primarily on the effects of customization formats on consumer satisfaction (Huffman & Kahn, 1998). Little, however, is known about the consequences of integrating elements of social interaction into mass customization systems. The few existing studies on social product configurators have examined how feedback impacts the uniqueness and creativity of product designs, the role of social distance in product modifications, and the satisfaction with self-designed products (D'Angelo, Diehl, & Cavanaugh, 2019; Hildebrand, Häubl, Herrmann, & Landwehr, 2013; Schlager et al., 2018). However, none of these studies have investigated whether and how different communication styles in consumer feedback messages affect peer customization.

Narcissists and Their Communication Style

Raskin and Terry (1988) derived the concept of narcissism as a subclinical personality construct and subsequently developed a validated measure: the Narcissistic Personality Inventory (NPI). Narcissists pay more attention to self-esteem than their less narcissistic peers, strive for admiration, and are characterized by agency, extraversion, and self-confidence (Baumeister & Vohs, 2001; Bradlee & Emmons, 1992; Morf & Rhodewalt, 2001). They purchase exclusive products to elevate their self-image and consider themselves special and entitled (Cisek et al., 2014; Sedikides et al., 2007).

The social interactions of narcissists involve their need to boast about their achievements (Buss & Chiodo, 1991) and their need for superiority, such that their agentic bias is acted out to validate these self-beliefs (Sedikides et al., 2007). Unsurprisingly, narcissism predicts a higher level of social activity in SNs and more self-promoting content (Buffardi & Campbell, 2008; Leung, 2013; McCain & Campbell, 2018; Ong et al., 2011; Poon & Leung, 2011). Narcissists are highly self-

focused, persistently seek attention, and often consider themselves the epicenter of their social world (Sedikides, Campbell, Reeder, Elliot, & Gregg, 2002). They communicate to convey "heroic I" messages; this self-centered "configuration of selfhood" means that individuals strive to be the heroes of their own stories (Goodman, Dueck, & Langdal, 2010, p. 667).

The prevailing opinion is that narcissistic communication is I-centered as narcissists tend to use more first-person singular (vs. plural) pronouns compared to non-narcissists (Chatterjee & Hambrick, 2007; Raskin & Shaw, 1988). However, this relationship has been examined with contradictory results. Some studies have not found a significant correlation between I-centered communication and narcissism (Carey et al., 2015; DeWall, Buffardi, Bonser, & Campbell, 2011; Fast & Funder, 2010). More recently, a positive relationship has only been demonstrated between narcissism and the use of words related to second-person pronouns, sports, and swearing (Holtzman et al., 2019). It remains unclear how narcissists communicate with respect to perspective-taking, especially in specific settings such as social product configurators, where uniqueness perceptions are likely more important (Franke & Schreier, 2008).

We propose that narcissistic consumers employ self-promoting interaction patterns within social communities associated with mass customization systems. When narcissistic consumers share their customized products with SN peers, their underlying motivation is to highlight their greatness (Goodman et al., 2010). They are hence likely to use more first-person singular pronouns rather than neutral, product-focused communication (Raskin & Shaw, 1988).

> H1: The greater consumers' narcissistic tendencies, the greater their use of I-centered (vs. product-centered) communication in social product configurators.

The Influence of Narcissistic Communication on Peers

How does narcissistic (i.e., I-centered) communication affect others in a mass customization context? Narcissists are often opinion leaders within their communities and motivated to share information about their own decision-making (Baumgarten, 1975). Hence, we predict that when product information is communicated narcissistically, it affects peer product customization. We expect this type of message to

inform peers that the product designer identifies with the customized product. Its use of "I" makes such communication seem more authentic and competent, and thus more influential (Brunell et al., 2008). Prior research has suggested that combining first-person pronouns and personal information evokes authenticity and enhances confidence (Schindler & Bickart, 2012). Further, consumers might believe narcissistic leaders are more competent and effective, based on their exhibited confidence (Brunell et al., 2008). Therefore, when consumers have the opportunity to repeat their configuration, we suspect that they are more heavily influenced by a narcissist's sample configuration (relative to a non-narcissist's), resulting in an adjusted original configuration.

H2: Consumers adjust their own customized product to their peers' sample configuration if its presentation is I-centered (vs. product-centered).

Peer input on evaluating preliminary design solutions can have positive effects (Franke, Keinz, & Schreier, 2008). However, evidence also exists that social comparisons and deviating from initial preferences due to social feedback can have negative effects by devaluing self-designed products (Dahl, Argo, & Morales, 2011; Hildebrand et al., 2013; Moreau & Herd, 2010). Consumers evaluate their self-designed product lower if the sample is presented by a close (vs. distant) social other (D'Angelo et al., 2019). Thus, while consumers likely adjust their customized product more to a narcissist's sample configuration (per H2), we expect them to be less satisfied with their own customized product because they perceive narcissists' sample configurations as more competently customized (Brunell et al., 2008). This might raise more doubts about one's own customized product and lead to less favorable evaluations. Negative reactions may also occur if someone's customized product is imitated (White & Argo, 2011).

H3: Consumers perceive their own customized products less favorably after seeing an I-centered (vs. product-centered) sample configuration.

Below, we report a set of three studies that were conducted to test H1–H3. As narcissism is linked to pride and self-enhancement, we accounted for the level of appraisal of the sample configuration by manipulating it. We conducted the studies in the automotive industry due to its advanced integration of social elements into mass

customization systems (see configurator-database.com; Schlager et al., 2018). All studies were carried out in accordance with ethical standards for psychological research (e.g., voluntary participation, informed consent, and confidential treatment of information). To improve the external validity of our results, we studied varying and market-relevant populations (i.e., recent car buyers, potential car buyers, and MBA students). Table 1 summarizes the methods and results.

Table 1: Summary of Methods and Results

Study	Main Focus	Participants	Design	Hypothesis	Dependent Variable	Results
Pilot	Role of social networks on car purchases & influence of narcissism on communication style	64 actual car buyers	Online study	H1	- Usage of social networks prior to car purchase - Usage of first-person singular pronouns in posts	Narcissists heavily use first-person singular pronouns when communicating via social networks
Pretest	Narcissistic communication in social networks	164 MBA students from a European business school	Paper-and-pencil study	H1	- Willingness to show the configured product in the social network - Select corresponding message, which varied in terms of perspective & appraisal	Narcissism is a significant predictor of choosing I-centered (vs. product-centered) messages
1	Influence of narcissistic communication on alteration of product customization	146 panel members from a commercial research company intending to buy a car in 2–3 years	Online study, between-subjects 2×2 design (perspective × appraisal)	H2	- Adjustment of options in product customization 2 versus product customization 1	Consumers adjust their own customized product to peers' sample configuration if it is presented I-centered (vs. product-centered)
2	Influence of narcissistic communication on evaluating product customization	169 MBA students from a European business school	Lab study, between-subjects 2×2 design (perspective × appraisal)	H3	- Choice satisfaction - Pride of authorship - Fit of configured options - Willingness to reconfigure	Consumers reading the I-centered (vs. product-centered) message showed decreased product valuation and increased willingness to reconfigure their car

Pilot Study

Our pilot study (see Appendix B1 for details) explored how SNs impact a recent car purchase and how consumer communication depends on narcissistic tendencies. We recruited 64 car buyers via a commercial market research company and measured their narcissistic tendencies using an abbreviated NPI-15 scale (see Appendix B2; Schütz, Marcus, & Sellin, 2004). We investigated how buyers used SNs prior to purchase. Results showed that narcissists more frequently use SNs, as indicated by a positive and significant relationship between narcissism and daily SN use (b = .51, SE = .18, t = 2.78, p < .01). Requesting car buyers to state their SN use in the past 30 days revealed that narcissism was positively and significantly related to the number of replies to their own posts (b = 3.08, SE = 1.02, t = 3.00, p < .01), indicating their role as influencers and opinion leaders. Further, narcissism was associated with a subjective measure of being an opinion leader (b = .18, SE = .05, t = 3.86, p < .001). Requesting car buyers to write an SN post for their friends about a recent restaurant visit (which enabled examining distinct SN communication styles), their narcissistic tendencies predicted the use of first-person singular pronouns (b = .06, SE = .03, t = 2.07, p = .04). This result was confirmed when using a relative measure designed to put into perspective the use of the first-person singular and first-person plural (b = .08, SE = .03, t = 2.38, p = .02). The findings of our pilot study suggest that narcissists can be described as opinion leaders who heavily use first-person singular pronouns when communicating via SNs (Raskin & Shaw, 1988), providing initial support for H1.

Study 1

Study 1 examined how narcissists' messages impact peer product customization. As predicted in H2, we expect consumers (irrespective of their narcissism scores) to adjust their customized product to a sample configuration if this is communicated narcissistically (I-centered) vs. non-narcissistically (product-centered). Using a mass customization context allowed us to precisely measure deviations from initial consumption choices.

Pretest

We conducted an extensive pretest to operationalize narcissistic (I-centered) communication (see Appendix C). The pretest further served to replicate and extend the

correlational results of the pilot study in a more controlled setting. The results showed that narcissists (vs. non-narcissists) are more likely to share information about products configured within a mass customization system. Importantly, narcissists tended to differentially structure their interactional patterns regarding a customized product by using more I-centered (vs. product-centered) messages. The pretest thus provides more direct support for H1. Interestingly, we found that narcissism does not predict choosing appraising versus non-appraising messages, suggesting that the effect of I-centered versus product-centered messages is considerably stronger.

Method

We employed a 2 (perspective: I-centered vs. product-centered) × 2 (appraisal: appraising vs. non-appraising) between-subjects design. The sample included 146 panel members from a commercial research company (45% female; $M_{\text{age}} = 42$; $M_{\text{narcissism}} = 5.52$) who were prescreened for their intention to purchase or lease a car.

Having completed the NPI-15, participants configured a car with a mock-up configurator (see Appendix D1). Next, they were randomly assigned to a sample configuration along with an experimentally manipulated SN message ($N_{\text{I, appraising}} = 39$, $N_{\text{I, non-appraising}} = 34$, $N_{\text{product, appraising}} = 35$, $N_{\text{product, non-appraising}} = 38$). We created four variant messages. These differed in terms of perspective (I-centered vs. product-centered), appraisal, and whether the chosen attribute options were made explicit (to keep message length constant; see Table 2). We also created four sample configurations, to be used with one of the four messages. Each configuration randomly combined six product options to minimize confounding factors resulting from preferring certain options (see Appendix D2). Finally, participants configured their car a second time, before completing a four-item car expertise scale (adapted from Hildebrand et al., 2014) and demographics.

The dependent variable was whether participants selected the same product options during the second product customization as selected in the sample configuration. As the same option was more likely to be chosen if few options were available (e.g., only three options for the sound system), each adjustment was weighted by the number of options for a particular attribute. Thus, we calculated an adjustment index:

$$AI = \sum_{i=1}^{6} SC_i O_i \quad (1),$$

where *i* represents the six product attributes, where *SC* represents whether participants choose the same (1) or not the same product option (0) as the sample configuration, and where *O* refers to the number of product options for the i^{th} attribute.

Table 2: Message Versions to Accompany Customized Products

	appraising	**non-appraising**
I-centered	"Let me show you an Audi A6 that I just configured. As I'm very good with cars, I've chosen the best options for the six attributes while I took care that they fit well together."	"Let me show you an Audi A6 that I just configured. I've chosen specific options for the six attributes exterior color, rims, seat upholstery, interior décor, steering wheel, and sound system."
Product-centered	"This Audi A6 has just been configured. The best options were chosen for the six attributes while care was taken that they fit well together."	"This Audi A6 has just been configured. Specific options have been chosen for the six attributes exterior color, rims, seat upholstery, interior décor, steering wheel, and sound system."

Results and Discussion

Consumers receiving an I-centered message were significantly more likely to adjust their customized product to a sample configuration. A two-way ANOVA with perspective and appraisal as factors and the adjustment index as dependent variable showed a significant effect for perspective ($F(1, 142) = 4.25$, $p = .04$), yet none for appraisal ($F(1, 142) = 1.66$, $p = .20$) nor for factor interaction ($F(1, 142) = .09$, $p = .77$; $M_{\text{I, appraising}} = 4.44$, $M_{\text{I, non-appraising}} = 3.18$, $M_{\text{product, appraising}} = 2.29$, $M_{\text{product, non-appraising}} = .29$). As expected, no significant effect was found between the adjustment index and customization 1 (index range: 0 to 27), as the sample configuration was shown after customization 1. Overall, H2 was supported.

We conducted two additional analyses. First, instead of analyzing consumers' adjustment toward the sample configuration using the adjustment index, we examined whether consumers changed their second customization compared to their first one. A two-way ANOVA (using the above factors) showed a marginally significant effect for perspective ($F(1, 142) = 3.48$, $p = .06$), yet no significant effects for appraisal ($F(1, 142) = 0.51$, $p = .48$) nor for their interaction ($F(1, 142) = 0.97$, $p = .33$), thus further supporting H2. Second, we considered narcissism scores. A two-way ANOVA with

perspective and narcissism as factors and the adjustment index as dependent variable showed a significant effect of perspective ($F(1, 142) = 4.22$, $p = .04$), yet none for narcissism ($F(1, 142) = 0.32$, $p = .57$) nor for their interaction ($F(1, 142) = 0.11$, $p = .74$), demonstrating that narcissists were also influenced by I-centered messages.

Study 1 demonstrated that narcissists' social interaction patterns lead peers to adjust a configured product to that of narcissists. In light of research showing that narcissistic consumers configure more unique products (de Bellis et al., 2016; Lee et al., 2013), they may also sway others to configure such products.

Study 2

Study 2 explored whether consumers are satisfied with their customized product after being presented with a narcissistic (vs. non-narcissistic) sample configuration. We focused on how consumers respond to a narcissistic versus non-narcissistic message and did not collect narcissism from this study.

Method

We employed a 2 (perspective: I-centered vs. product-centered) × 2 (appraisal: appraising vs. non-appraising) between-subjects design. The sample included 169 MBA students who participated in a paper-and-pencil study. We excluded ten participants who had not read the manipulation message, resulting in a final sample size of 159 participants (23% female; mode age within age bracket 30–39).

Participants used a car configurator to configure their car of choice and subsequently evaluated their customized product. Similar to Study 1, they were shown one of four fully configured cars. Along with this sample configuration, participants were randomly assigned to one of four experimentally manipulated messages ($N_{\text{I, appraising}} = 46$, $N_{\text{I, non-appraising}} = 41$, $N_{\text{product, appraising}} = 34$, $N_{\text{product, non-appraising}} = 38$) supposedly posted on Facebook. Before providing demographics, participants reevaluated their customized product by responding to several variables (see Table 3).

Results and Discussion

As expected, the two conditions did not differ in terms of initial choice satisfaction (see Table 3). However, both this and further variables systematically varied by treatment after participants read the experimental message. A two-way ANOVA with perspective and appraisal as factors and choice satisfaction as dependent variable exhibited a significant effect for both perspective ($F(1, 155) = 6.05$, $p = .02$) and

appraisal ($F(1, 155) = 4.16$, $p = .04$), yet no significant interaction ($F(1, 155) = .83$, $p = .36$). Regarding pride of authorship, we found a significant effect for perspective ($F(1, 155) = 6.90$, $p < .01$) and appraisal ($F(1, 155) = 7.69$, $p < .01$), yet no significant interaction ($F(1, 155) = .58$, $p = .45$). Regarding willingness to reconfigure, we found a significant effect for perspective ($F(1, 155) = 24.21$, $p < .001$), a marginally significant effect for appraisal ($F(1, 155) = 2.94$, $p = .09$), and no significant interaction ($F(1, 155) = .17$, $p = .68$). Regarding fit of configured items, we found a significant effect for perspective ($F(1, 155) = 8.50$, $p < .01$), yet none for appraisal ($F(1, 155) = 2.35$, $p = .13$) nor their interaction ($F(1, 155) = 1.35$, $p = .25$). Thus, consumers reading the I-centered (vs. product-centered) message exhibited decreased choice satisfaction, decreased pride of authorship, decreased fit of the configured options, and increased willingness to reconfigure their car (see Table 3). These findings support H3.

Study 2 showed that consumers consistently evaluated their customized product more negatively after seeing a narcissistically communicated sample configuration while expressing a greater desire to reconfigure their customized product.

Table 3: Results of Study 2: Means Before (1) and After (2) the Presentation of a Sample Configuration by Communication Style

	I-centered		Product-centered	
	Appraisal	Non-appraisal	Appraisal	Non-appraisal
Choice satisfaction (1)	3.93	3.68	3.64	3.95
Choice satisfaction (2)	3.07	3.18	3.20	3.47
Pride of authorship	4.46	4.91	4.88	5.13
Fit of the configured items	4.28	4.17	5.26	4.61
Willingness to reconfigure	3.96	4.54	2.68	3.03

Note. Choice satisfaction was measured with five items (Homburg et al., 2005) both before (1) and after (2) participants read the message. Pride of authorship (three items; Franke et al., 2010), fit of configured options (one item; Till & Busler, 2000), and the willingness to reconfigure one's car (one item) were measured after participants had read the message. All variables were measured on a 7-point Likert scales.

General Discussion

Our pilot study and two experiments highlight the social power of narcissists in mass customization systems: Consumers scoring high (vs. low) on narcissism are more likely to share their customized product online as a sample configuration and to use I-centered communication to describe that configuration. Such narcissistic communication makes peers adjust their own customized product to the sample configuration and to evaluate their own product less favorably. Narcissistic communication seems critical to understanding the effectiveness of eWOM and to determining what cuts through the noise and influences consumers in social product configurators. These findings provide four major implications for marketing research and practitioners.

First, we contribute to the growing research stream on mass customization and especially social product configurators (Arora et al., 2008; de Bellis, Hildebrand, Ito, & Herrmann, 2015; Schlager et al., 2018). Our findings are also relevant for practitioners, as many industries have embraced the promising link between mass customization systems and SNs, while only little is known about the consequences of integrating elements of social interaction into mass customization systems. Our research illustrates the potential downsides of such integration. Narcissists can impact the mass customization buying process because they are often opinion leaders within social communities and strive to share information with peers. According to our findings, eWOM from narcissists may decrease consumer satisfaction with the customized product and result in a greater desire to reconfigure the product. The latter need not be a disadvantage for companies, which should, however, carefully integrate social sharing functions into product configurators and account for individual differences in narcissism when creating the configurators. They should also ask themselves where the benefits outweigh the disadvantages.

Second, we contribute to the growing research on eWOM by showing that communication type determines message impact. We found that eWOM from narcissists is more influential, as consumers adjust their own consumption choice to a sample configuration if presented with narcissistic communication (Study 1). Prior research has shown that negative eWOM is more influential than positive eWOM (Hewett, Rand, Rust, & Van Heerde, 2016). We extend these findings by showing that even positive eWOM may have negative consequences. Future research could more closely examine why narcissistic communication is more influential and what the underlying role of

perceived competency is (Brunell et al., 2008). The principle of social proof might also explain the greater influence of I-centered (vs. product-centered) communication. This principle implies that "we view a behavior as correct in a given situation to the degree that we see others performing it" (Cialdini, 2009, p. 99). Consumers may adjust their customized product to the sample configuration to avoid mistakes, to reduce uncertainty, and to accord with social evidence (Cialdini, 2009). Our research also expands existing research on the detrimental effect of community feedback on consumer satisfaction (Moreau & Herd, 2010). Whereas previous research has found that general feedback leads to less unique product designs and reduced satisfaction (Hildebrand et al., 2013), we show that feedback from narcissists negatively impacts consumers' satisfaction rates with their customized product.

Third, we contribute to the growing stream on narcissism in SNs and provide intriguing avenues for future research. Our research shows that narcissism manifests not only in physical appearance (Vazire, Naumann, Rentfrow, & Gosling, 2008) but also in communication characteristics (i.e., more I-centered communication). Whereas previous findings about narcissists' use of first-person pronouns (singular vs. plural) have been contradictory, we show that narcissists use more I-centered (vs. product-centered) communication in SNs and are more likely to share their customized product (pilot study and pretest).

As shown, narcissistic (vs. non-narcissistic) communication (operationalized through I-centered communication) negatively influences peer satisfaction while increasing product reconfiguration willingness (Study 2). Interestingly, narcissists and non-narcissists are equally influenced by I-centered communication. Further, narcissism did not predict the choice of appraising versus non-appraising messages. This might be explained by the fact that narcissists' attention is primarily guided by I-centered pronouns, meaning they little heed other differences in the constructed messages or that narcissism is not a predictor of appraising messages. Future research could verify this assumption using eye tracking technology to show heatmaps of attention in the constructed messages (i.e., if consumers focus on the "I").

Also worth studying is that consumers might not identify I-centered communication as messages from narcissists, and that not all I-centered communication comes from narcissists. It would be intriguing to examine whether consumers also adjust their customized product to a sample configuration if stemming from an obviously narcissistic person. In this case, we expect consumers to configure their product very

differently than the narcissistic sample configuration because they do not wish to appear narcissistic. Future research could also examine how narcissists can be identified in an eWOM context other than by I-centered communication. Other factors typical of narcissistic communication in SNs likely exist (e.g., the use of more exclamation marks; Holtzman et al., 2019).

Finally, our research has potential implications for the nascent field of influencer marketing. This has emerged as one of the fastest-growing advertising segments (Linqia, 2019; Lou & Yuan, 2019). Our findings raise two key questions: How narcissistic are influencers? And are influencers largely equal to narcissists? Whereas current research is unable to answer these questions, our findings suggest that marketers should find ways of identifying narcissists and be aware of their power to influence peers. We advise marketers to consider the potential negative effects of narcissism in the field of influencer marketing and to find the sweet spot between providing ideas and feedback via sample configurations and strengthening consumers' opinions of their own customizations. Policy makers should consider the impacts on society through the social power of narcissists, for example, by nudging people toward healthier choices or more environmentally friendly behavior.

References

Arora, N., Dreze, X., Ghose, A., Hess, J. D., Iyengar, R., Jing, B., . . . Zhang, Z. J. (2008). Putting one-to-one marketing to work: Personalization, customization, and choice. *Marketing Letters, 19*(3), 305–321. https://doi.org/10.1007/s11002-008-9056-z

Baumeister, R., & Vohs, K. (2001). Narcissism as Addiction to Esteem. *Psychological Inquiry, 12*(4), 206–210.

Baumgarten, S. (1975). The Innovative Communicator in the Diffusion Process. *Journal of Marketing Research, 12*(1), 12–18. https://doi.org/10.2307/3150653

Berger, J. (2014). Word of mouth and interpersonal communication: A review and directions for future research. *Journal of Consumer Psychology, 24*(4), 586–607. https://doi.org/10.1016/j.jcps.2014.05.002

Bradlee, P. M., & Emmons, R. A. (1992). Locating narcissism within the interpersonal circumplex and the five-factor model. *Personality and Individual Differences, 13*(7), 821–830. https://doi.org/10.1016/0191-8869(92)90056-U

Brunell, A. B., Gentry, W. A., Campbell, W. K., Hoffman, B. J., Kuhnert, K. W., & DeMarree, K. G. (2008). Leader Emergence: The Case of the Narcissistic Leader. *Personality and Social Psychology Bulletin, 34*(12), 1663–1676. https://doi.org/10.1177/0146167208324101

Buffardi, L. E., & Campbell, W. K. (2008). Narcissism and Social Networking Web Sites. *Personality and Social Psychology Bulletin, 34*(10), 1303–1314. https://doi.org/10.1177/0146167208320061

Buss, D. M., & Chiodo, L. M. (1991). Narcissistic Acts in Everyday Life. *Journal of Personality 59*(2), 179–215. https://doi.org/10.1111/j.1467-6494.1991.tb00773.x

Carey, A. L., Brucks, M. S., Küfner, A. C. P., Holtzman, N. S., große Deters, F., Back, M. D., Donnellan, M. B., Pennebaker, J. W., & Mehl, M. R. (2015). Narcissism and the use of personal pronouns revisited. *Journal of Personality and Social Psychology*, *109*(3), e1–e15. https://doi.org/10.1037/pspp0000029

Chatterjee, A., & Hambrick, D. C. (2007). It's All about Me: Narcissistic Chief Executive Officers and Their Effects on Company Strategy and Performance. *Administrative Science Quarterly, 52*(3), 351–386. https://doi.org/10.2189/asqu.52.3.351

Chevalier, J., & Mayzlin, D. (2006). The Effect of Word of Mouth on Sales: Online Book Reviews. *Journal of Marketing Research, 43*(3), 345–354. https://doi.org/10.1509/jmkr.43.3.345

Chintagunta, P. K., Gopinath, S., & Venkataraman, S. (2010). The Effects of Online User Reviews on Movie Box Office Performance: Accounting for Sequential Rollout and Aggregation Across Local Markets. *Marketing Science, 29*(5), 944–957. https://doi.org/10.1287/mksc.1100.0572

Cialdini, R. B. (2009). *Influence: Science and practice*. Boston, MA: Pearson.

Cisek, S. Z., Sedikides, C., Hart, C. M., Godwin, H. J., Benson, V., & Liversedge, S. P. (2014). Narcissism and consumer behaviour: a review and preliminary findings. *Frontiers in Psychology, 5*(232), 1–9. https://doi.org/10.3389/fpsyg.2014.00232

Dahl, D. W., Argo, J. J., & Morales, A. C. (2011). Social Information in the Retail Environment: The Importance of Consumption Alignment, Referent Identity, and Self-Esteem. *Journal of Consumer Research, 38*(5), 860–871. https://doi.org/10.1086/660918

D'Angelo, J. K., Diehl, K., & Cavanaugh, L. A. (2019). Lead by Example? Custom-Made Examples Created by Close Others Lead Consumers to Make Dissimilar Choices. *Journal of Consumer Research, 46*(4), 750–773. https://doi.org/10.1093/jcr/ucz019

de Bellis, E., Hildebrand, C., Ito, K., & Herrmann, A. (2015). Cross-national differences in uncertainty avoidance predict the effectiveness of mass customization across East Asia: a large-scale field investigation. *Marketing Letters, 26*, 309–320. https://doi.org/10.1007/s11002-015-9356-z

de Bellis, E., Sprott, D. E., Herrmann, A., Bierhoff, H., & Rohmann, E. (2016). The Influence of Trait and State Narcissism on the Uniqueness of Mass-Customized Products. *Journal of Retailing, 92*(2), 162–172. https://doi.org/10.1016/j.jretai.2015.11.003

Dellorcas, C., Zhang, X., & Awad, N. F. (2007). Exploring the value of online product reviews in forecasting sales: The case of motion pictures. *Journal of Interactive Marketing, 21*(4), 23–45. https://doi.org/10.1002/dir.20087

DeWall, C. N., Buffardi, L. E., Bonser, I., & Campbell, W. K. (2011). Narcissism and implicit attention seeking: Evidence from linguistic analyses of social networking and online presentation. *Personality and Individual Differences, 51*(1), 57–62. https://doi.org/10.1016/j.paid.2011.03.011

Eisingerich, A. B., Chun, H. H., Liu, Y., Jia, H. M., & Bell, S. J. (2015). Why recommend a brand face-to-face but not on Facebook? How word-of-mouth on online social sites differs from traditional word-of-mouth. *Journal of Consumer Psychology, 25*(1), 120–128. https://doi.org/10.1016/j.jcps.2014.05.004

Emmons, R. A. (1984). Factor Analysis and Construct Validity of the Narcissistic

Personality Inventory. *Journal of Personality Assessment, 48*(3), 291–300. https://doi.org/10.1207/s15327752jpa4803_11

Fast, L. A., & Funder, D. C. (2010). Gender Differences in the Correlates of Self-Referent Word Use: Authority, Entitlement, and Depressive Symptoms. *Journal of Personality, 78*(1), 313–338. https://doi.org/10.1111/j.1467-6494.2009.00617.x

Franke, N., Keinz, P., & Schreier, M. (2008). Complementing Mass Customization Toolkits with User Communities: How Peer Input Improves Customer Self-Design*. *Journal of Product Innovation Management, 25*(6), 546–559. https://doi.org/10.1111/j.1540-5885.2008.00321.x

Franke, N., & Schreier, M. (2008). Product Uniqueness as a Driver of Customer Utility in Mass Customization. *Marketing Letters, 19*, 93–107. https://doi.org/10.1007/s11002-007-9029-7

Franke, N., Schreier, M., & Kaiser, U. (2010). The "I Designed It Myself" Effect in Mass Customization. *Management Science, 56*(1), 125–140. https://dx.doi.org/10.1287/mnsc.1090.1077

Gandhi, A., Magar, C., & Roberts, R. (2014). How technology can drive the next wave of mass customization. *Business Technology Office,* 1-8. Retrieved from https://digitalmarketing.temple.edu/mktg5604/wp-content/uploads/sites/6/2015/06/ How-technology-can-drive-the-next-wave-of-mass-customization.pdf

Goodman, D. M., Dueck, A., & Langdal, J. P. (2010). The "Heroic I": A Levinasian Critique of Western Narcissism. *Theory & Psychology, 20*(5), 667–685. https://doi.org/10.1177/0959354310370238

Hennig-Thurau, T., Gwinner, K. P., Walsh, G., & Gremler, D. D. (2004). Electronic word-of-mouth via consumer-opinion platforms: What motivates consumers to articulate themselves on the Internet? *Journal of Interactive Marketing, 18*(1), 38–52. https://doi.org/10.1002/dir.10073

Hewett, K., Rand, W., Rust, R. T., & Van Heerde, H. J. (2016). Brand Buzz in the Echoverse. *Journal of Marketing*, *80*(3), 1–24. https://doi.org/10.1509/jm.15.0033

Hildebrand, C., Häubl, G., Herrmann, A., & Landwehr, J. R. (2013). When Social Media Can Be Bad for You: Community Feedback Stifles Consumer Creativity and Reduces Satisfaction with Self-Designed Products. *Information Systems Research, 24*(1), 14–29. https://doi.org/10.1287/isre.1120.0455

Holtzman, N. S., Tackman, A. M., Carey, A. L., Brucks, M. S., Küfner, A. C. P., Deters, F. G., Back, M. D., Donnellan, M. B., Pennebaker, J. W., Sherman, R.

A., & Mehl, M. R. (2019). Linguistic Markers of Grandiose Narcissism: A LIWC Analysis of 15 Samples. *Journal of Language and Social Psychology*, *38*(5–6), 773–786. https://doi.org/10.1177%2F0261927X19871084

Homburg, C., Koschate, N., & Hoyer, W. D. (2005). Do Satisfied Customers Really Pay More? A Study of the Relationship between Customer Satisfaction and Willingness to Pay. *Journal of Marketing, 69*(2), 84–96. https://doi.org/10.1509/jmkg.69.2.84.60760

Huffman, C., & Kahn, B. E. (1998). Variety for sale: Mass customization or mass confusion? *Journal of Retailing, 74*(4), 491-513. https://doi.org/10.1016/S0022-4359(99)80105-5

Kashmiri, S., Nicol, C. D., & Arora, S. (2017). Me, myself, and I: influence of CEO narcissism on firms' innovation strategy and the likelihood of product-harm crises. *Journal of the Academy of Marketing Science, 45*, 633–656. https://doi.org/10.1007/s11747-017-0535-8

Lee, S. Y., Gregg, A. P., & Park, S. H. (2013). The person in the purchase: Narcissistic consumers prefer products that positively distinguish them. *Journal of Personality and Social Psychology, 105*(2), 335–352. https://doi.org/10.1037/a0032703

Leung, L. (2013). Generational differences in content generation in social media: The roles of the gratifications sought and of narcissism. *Computers in Human Behavior, 29*(3), 997–1006. https://doi.org/10.1016/j.chb.2012.12.028

Linqia (2019). *The State of Influencer Marketing.* Retrieved from https://linqia.com/wp-content/uploads/2019/04/Linqia-State-of-Influencer-Marketing-2019-Report.pdf

Litvin, S. W., Goldsmith, R. E., & Pan, B. (2008). Electronic word-of-mouth in hospitality and tourism management. *Tourism Management, 29*(3), 458–468. https://doi.org/10.1016/j.tourman.2007.05.011

Liu, Y. (2006). Word of Mouth for Movies: Its Dynamics and Impact on Box Office Revenue. *Journal of Marketing, 70*(3), 74–89. https://doi.org/10.1509/jmkg.70.3.074

Liu, S. Q., Ozanne, M., & Mattila, A. S. (2018). Does expressing subjectivity in online reviews enhance persuasion? *Journal of Consumer Marketing, 35*(4), 403–413. https://doi.org/10.1108/JCM-02-2017-2109

Lou, C., & Yuan, S. (2019). Influencer Marketing: How Message Value and Credibility Affect Consumer Trust of Branded Content on Social Media. *Journal of Interactive Advertising, 19*(1), 58-73. https://doi.org/10.1080/15252019.2018.1533501

Luangrath, A. W., Peck, J. & Barger, V. A. (2017). Textual paralanguage and its implications for marketing communications. *Journal of Consumer Psychology, 27*(1), 98–107. https://doi.org/10.1016/j.jcps.2016.05.002

McCain, J. L., & Campbell, W. K. (2018). Narcissism and social media use: A meta-analytic review. *Psychology of Popular Media Culture, 7*(3), 308–327. https://doi.org/10.1037/ppm0000137

Moore, S. G. (2015). Attitude Predictability and Helpfulness in Online Reviews: The Role of Explained Actions and Reactions. *Journal of Consumer Research, 42*(1), 30–44. https://doi.org/10.1093/jcr/ucv003

Moore, S. G., & McFerran, B. (2017). She Said, She Said: Differential Interpersonal Similarities Predict Unique Linguistic Mimicry in Online Word of Mouth. *Journal of the Association for Consumer Research, 2*(2), 229–245. https://doi.org/10.1086/690942

Moreau, C., & Herd, K. (2010). To Each His Own? How Comparisons with Others Influence Consumers' Evaluations of Their Self-Designed Products. *Journal of Consumer Research, 36*(5), 806–819. https://doi.org/10.1086/644612

Morf, C., & Rhodewalt, F. (2001). Unraveling the Paradoxes of Narcissism: A Dynamic Self-Regulatory Processing Model. *Psychological Inquiry, 12*(4), 177–196. https://doi.org/10.1207/S15327965PLI1204_1

Nielsen (2015). *Global trust in advertising report of Nielsen.* Retrieved from https://www.nielsen.com/wp-content/uploads/sites/3/2019/04/global-trust-in-advertising-report-sept-2015-1.pdf

Ong, E. Y. L., Ang, R. P., Ho, J. C. M., Lim, J. C. Y., Goh, D. H., Lee, C. S., & Chua, A. Y. K. (2011). Narcissism, extraversion and adolescents' self-presentation on Facebook. *Personality and Individual Differences, 50*(2), 180–185. https://doi.org/10.1016/j.paid.2010.09.022Get

Packard, G., & Berger, J. (2017). How Language Shapes Word of Mouth's Impact. *Journal of Marketing Research, 54*(4), 572–588. https://doi.org/10.1509/jmr.15.0248

Poon, D. C. H., & Leung, L. (2011). Effects of Narcissism, Leisure Boredom, and Gratifications Sought on User-Generated Content Among Net-Generation Users. *International Journal of Cyber Behavior, Psychology & Learning, 1*(3), 1–14. https://doi.org/10.4018/ijcbpl.2011070101

Raskin, R., & Shaw, R. (1988). Narcissism and the Use of Personal Pronouns. *Journal of Personality, 56*(2), 393–404. https://doi.org/10.1037/pspp0000029

Raskin, R., & Terry, H. (1988). A principle components analysis of the Narcissistic

Personality Inventory and further evidence of its construct validity. *Journal of Personality and Social Psychology*, *54*(5), 890–902. https://doi.org/10.1037/0022-3514.54.5.890

Rosario, A. B., Sotgiu, F., De Valck, K., & Bijmolt, T. H. A. (2016). The Effect of Electronic Word of Mouth on Sales: A Meta-Analytic Review of Platform, Product, and Metric Factors. *Journal of Marketing Research, 53*(3), 297–318. https://doi.org/10.1509/jmr.14.0380

Schlager, T., Hildebrand, C., Häubl, G., Franke, N., & Herrmann, A. (2018). Social Product-Customization Systems: Peer Input, Conformity, and Consumers' Evaluation of Customized Products. *Journal of Management Information Systems*, *35*(1), 319–349. https://doi.org/10.1080/07421222.2018.1440763

Schindler, R. M., & Bickart, B. (2012). Perceived helpfulness of online consumer reviews: The role of message content and style. *Journal of Consumer Behaviour, 11*(3), 234–243. https://doi.org/10.1002/cb.1372

Schütz, A., Marcus, B., & Sellin, I. (2004). Die Messung von Narzissmus als Persönlichkeitskonstrukt*. Diagnostica, 50*(4), 202-218. https://doi.org/10.1026/0012-1924.50.4.202

Sedikides, C., Campbell, W. K., Reeder, G. D., Elliot, A. J., & Gregg, A. P. (2002). Do others bring out the worst in narcissists? The "others exist for me" illusion. *In Self and identity: Personal, social, and symbolic*. (pp. 103-124). Mahwah, NJ, US: Lawrence Erlbaum Associates Publishers.

Sedikides, C., Gregg, A. P., Cisek, S., & Hart, C. M. (2007). The I that buys: Narcissists as Consumers. *Journal of Consumer Psychology*, *17*(4), 254–257. https://doi.org/10.1016/S1057-7408(07)70035-9

Till, B. D., & Busler, M. (2010). The Match-Up Hypothesis: Physical Attractiveness, Expertise, and the Role of Fit on Brand Attitude, Purchase Intent and Brand Beliefs. *Journal of Advertising*, *29*(3), 1–13. https://doi.org/10.1080/00913367.2000.10673613

Vazire, S., Naumann, L. P., Rentfrow, P. J., & Gosling, S. D. (2008). Portrait of a narcissist: Manifestations of narcissism in physical appearance. *Journal of Research in Personality, 42*(6), 1439–1447. https://doi.org/10.1016/j.jrp.2008.06.007

White, K., & Argo, J. J. (2011). When Imitation Doesn't Flatter: The Role of Consumer Distinctiveness in Responses to Mimicry. *Journal of Consumer Research, 38*(4), 667–680. https://doi.org/10.1086/660187

Zhu, F., & Zhang, X. (2010). Impact of Online Consumer Reviews on Sales: The Moderating Role of Product and Consumer Characteristics. *Journal of*

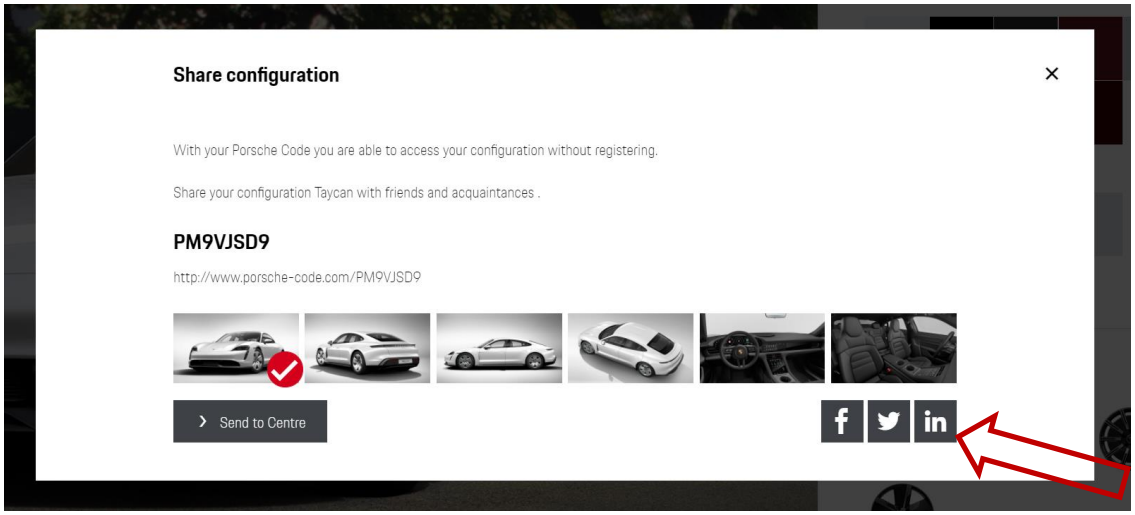
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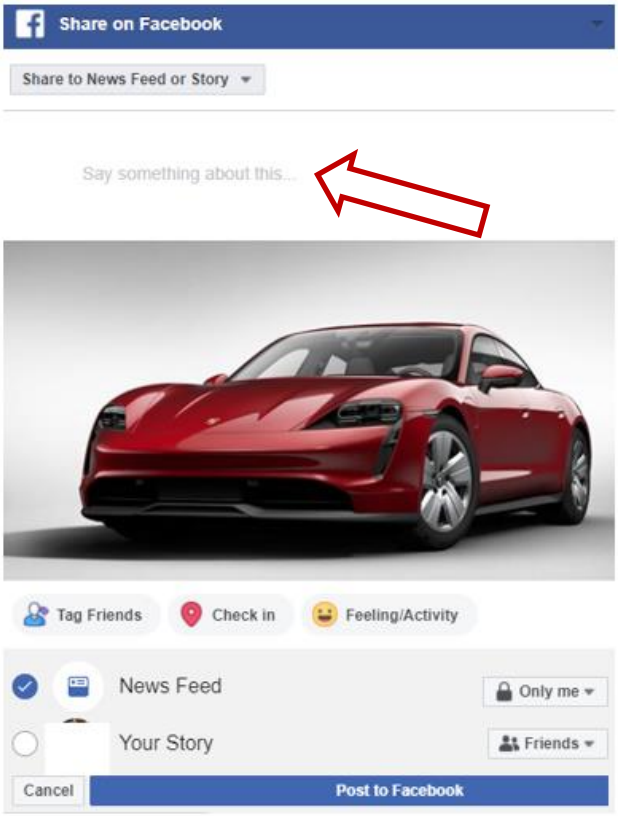
Appendix

Appendix A: Examples of Social Product Configurators

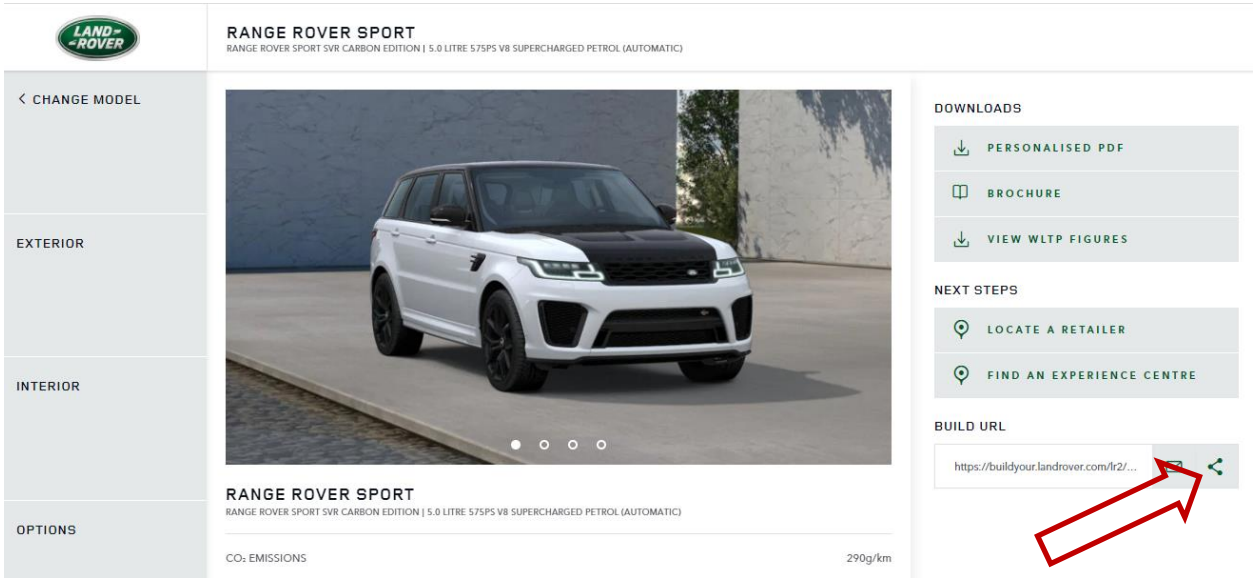
Example from **Porsche**

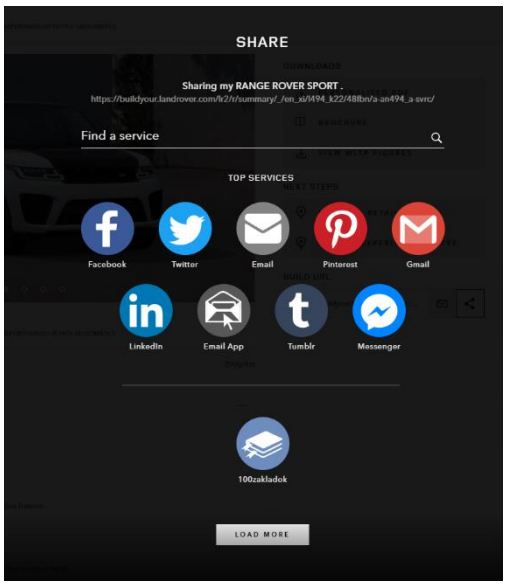
Note: All examples were retrieved on February 23, 2021.

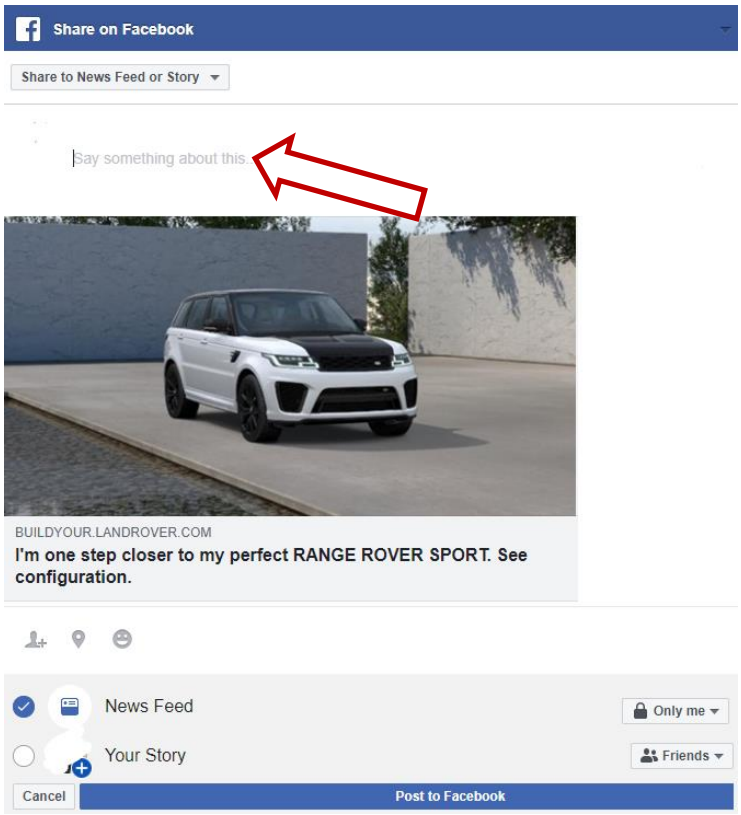




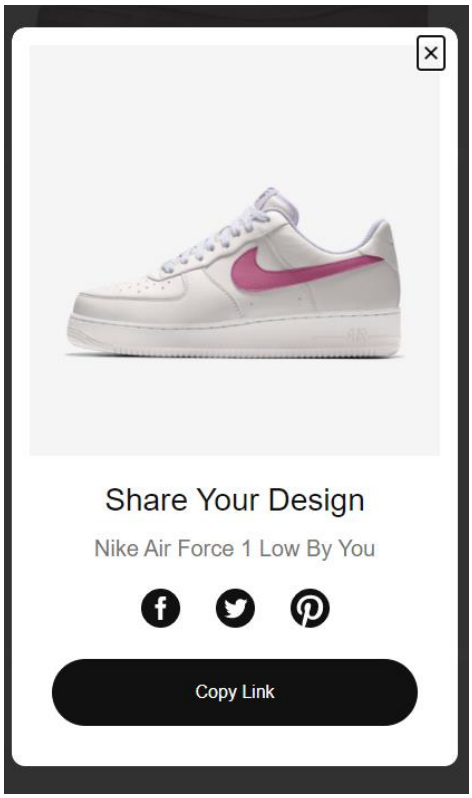
Example from **Land Rover**



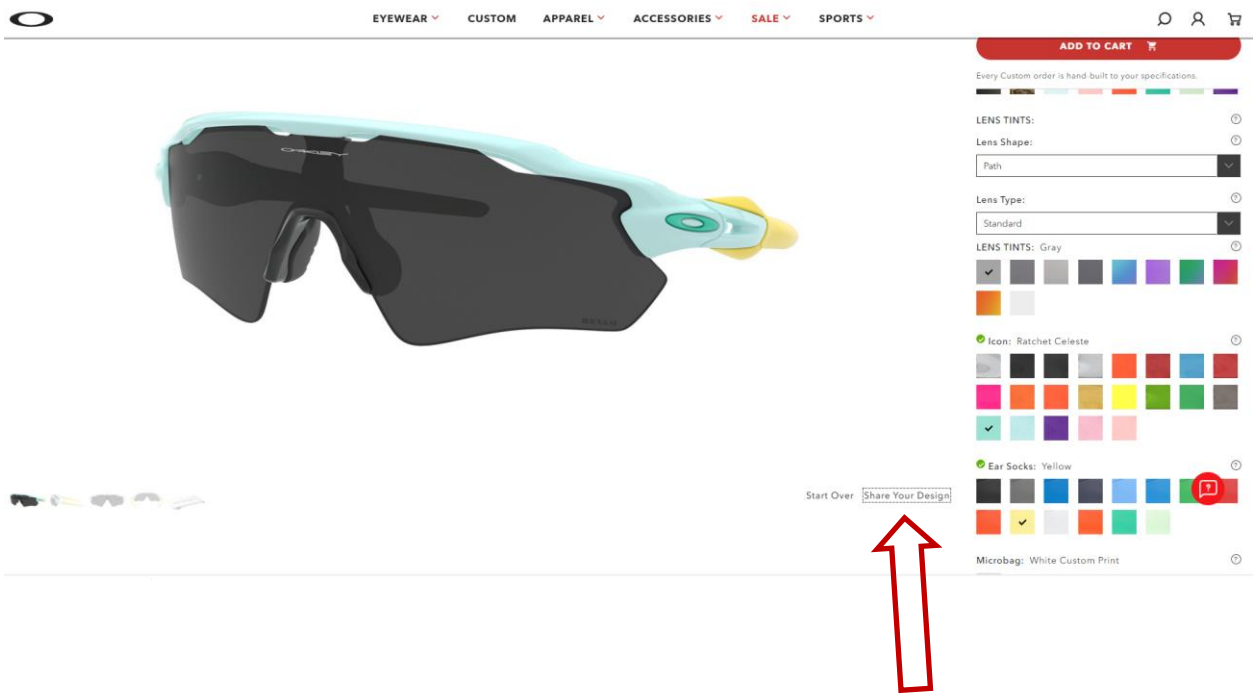




Example from **Nike**



Example from **Oakley**





Appendix B1: Pilot Study Details

The pilot study examined the role of social networks (SN) in a recent car purchase. We recruited actual car buyers, measured their narcissistic tendencies, and investigated how they used SNs prior to purchase. Consumers also completed a task that allowed us to examine their distinct communication styles on SNs.

Method

Participants and procedure. 64 car buyers (59% female; M_{age} = 41) were recruited via a commercial market research company and compensated for participation. Participants were prescreened for purchasing a car within the previous six months and for belonging to a SN (e.g., Facebook). The average level of narcissism for the sample was 4.63, similar to values reported by other researchers (Schütz et al. 2004). Data were collected via an online survey including various questions (not central to the current research) about the recent purchase and the accessing use of SNs around the purchase. Participants first completed the NPI-15, answered questions about the purchase and their use of SNs, and performed a task designed to evaluate their distinct communication style. The survey concluded by measuring demographics.

Narcissism measure. The primary independent variable for the pilot study and the experimental studies was a validated measure of narcissism. We assessed narcissism using the NPI-15 (Schütz, et al. 2004). For the scale, participants were given 15 pairs of phrases; one phrase represented a narcissistic response (e.g., "I am going to be a great person"), the other a non-narcissistic response (e.g., "I hope I am going to be successful"). For each pair, participants were asked to select the response closest to their beliefs. The number of narcissistic responses was summed to form a narcissism score ranging from 0 (non-narcissistic) to 15 (very narcissistic).

Results

All our analyses treated narcissism as a continuous variable (cf. Foster and Campbell 2007). Narcissists tended to use SNs more frequently, as indicated by a positive and significant relationship between narcissism and daily frequency of SN use (b = .51, SE = .18, t = 2.78, p < .01). However, narcissism did not predict the time spent daily on SNs (b = .97, SE = 1.42, t = .69, p = .50). Requesting car buyers to state their SN use in the past 30 days revealed that narcissism was positively and significantly related to the number of replies to their own posts (b = 3.08, SE = 1.02, t = 3.00, p <

.01), highlighting their (perceived) role as influencers and opinion leaders. At the same time, we found non-significant or marginally significant relationships between narcissism and the number of posts written (b = .57, SE = .34, t = 1.67, p = .10), the number of replies to other posts (b = .69, SE = 54, t = 1.28, p = .20), and the number of pictures uploaded (b = .86, SE = .47, t = 1.84, p = .07).

Regarding their car purchase, narcissism was positively and significantly related to both the number of friends (b = .22, SE = .08, t = 2.81, p < .01) and the number of experts consulted before vehicle choice (b = .06, SE = .03, t = 2.10, p = .04). However, narcissism was not associated with a self-reported measure of how intensively participants consulted friends (b = −.04, SE = .07, t = −.50, p = .62) and experts (b = .02, SE = .08, t = .21, p = .83). Importantly, when asked to write a post for their preferred SN, consumers' narcissistic tendencies predicted their use of the first-person singular (b = .06, SE = .03, t = 2.07, p = .04). This result was confirmed when using a relative measure that put using the first-person singular and plural into perspective (b = .08, SE = .03, t = 2.38, p = .02). Finally, and as expected, we also found that narcissism was associated with a subjective measure of being an opinion leader (b = .18, SE = .05, t = 3.86, p < 0.001).

Discussion

The results of the pilot study showed that narcissists can be described as opinion leaders (Baumgarten 1975) heavily using the first-personal singular when communicating on SNs (Raskin and Shaw 1988). This finding provided preliminary evidence for H1.

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Social Exchange

Now we would like to ask you to write some sentences yourself.

Imagine you have recently been on holiday and have eaten in one of the three restaurants shown below (see pictures). **You would like to share this experience with the friends of your social network.**





Please take two minutes to **describe your experience** (the next button will appear afterwards).

Appendix B2: NPI-15 Scale

The 15-item short form of the Narcissistic Personality Inventory (NPI-15; Schütz et al. 2004)

A) I have a natural talent for influencing people.

B) I am not good at influencing people.

A) When people compliment me I sometimes get embarrassed.

B) I know that I am good because everybody keeps telling me so.

A) I prefer to blend in with the crowd.

B) I like to be the center of attention.

A) I am no better or worse than most people.

B) I think I am a special person.

A) I am not sure if I would make a good leader.

B) I see myself as a good leader.

A) I like to have authority over other people.

B) I don’t mind following orders.

A) I find it easy to manipulate people.

B) I don’t like it when I find myself manipulating people.

A) I just want to be reasonably happy.

B) I want to amount to something in the eyes of the world.

A) I have a strong will to power.

B) Power for its own sake doesn’t interest me.

A) I really like to be the center of attention.

B) It makes me uncomfortable to be the center of attention.

A) Being an authority doesn’t mean that much to me.

B) People always seem to recognize my authority.

A) I would prefer to be a leader.

B) It makes little difference to me whether I am a leader or not.

A) I am going to be a great person.

B) I hope I am going to be successful.

A) I am a born leader.

B) Leadership is a quality that takes a long time to develop.

Appendix C: Pretest

The pretest aimed to replicate the pilot study in a more controlled setting and focused on narcissists' specific communication style (in the form of ready-made messages) when presenting a customized product to peers in a SN.

Method

We recruited 164 MBA students for a paper-and-pencil study. We excluded five participants due to incomplete data, resulting in a final sample size of 159 participants (45% female; mode age within age bracket 30-39; $M_{\text{narcissism}} = 5.56$).

Participants first completed the NPI-15 measure of narcissism. Individual narcissism scores served as a focal independent variable. Next, participants configured a car of choice by using a mock-up car configurator (see Appendix D1). Third, they were asked whether and with whom they would share their customized product (first dependent variable) and, if so, to choose one of four messages accompanying the customized product (second dependent variable; see Table 2 in the main paper). These messages varied not only in terms of perspective (I-centered vs. product-centered) but also in terms of appraisal and whether the chosen attribute options were made explicit (to keep message length constant). This variation allowed us to examine whether the proposed effect of perspective holds for both appraising and non-appraising messages. A one-item car expertise measure and demographic measurements concluded the pretest.

Results

About half of the participating consumers (53%) agreed to present their customized product in a SN. Logit regression showed that willingness to present one's customized product depended on narcissism: Narcissistic consumers were more likely to make their customized product public than non-narcissistic ones ($b = .26$, $SE = .06$, $z = 4.33$, $p < 0.001$). Categorizing consumers into narcissists (score ≥ 9) and non-narcissists (score < 9) highlighted the magnitude of this effect: Whereas 84.8% of narcissists agreed to present their customized product, only 45.2% of non-narcissists did so. In terms of messages, across all consumers, the four messages were chosen similarly often (I-centered, appraising: 22.35%; I-centered, non-appraising: 21.18%; product-centered, appraising: 29.41%; product-centered, non-appraising: 27.06%). Analyzing this choice pattern based on narcissism revealed systematic differences: Narcissism

significantly predicts one's choice of I-centered (vs. product-centered) messages (b = .37, SE = .10, z = −3.81, p < 0.001), a result that was robust when controlling for consumers' car expertise (b = .33, SE = .14, z = −2.45, p = .01). We found converging evidence for the effect of narcissism on perspective when considering only the two appraising messages (b = .41, SE = .14, z = −2.87, p = .004) and the two non-appraising messages (b = .33, SE = .13, z = −2.51, p = .01). These results indicate that narcissists' communication style differs from that of non-narcissists in terms of perspective, thus confirming H1. Interestingly, we found that narcissism did not predict choosing appraising versus non-appraising messages (b = .05, SE = .07, z = .62, p = .54), suggesting that the effect of I-centered versus product-centered messages was considerably stronger.

Discussion

This study's findings support the basic proposition that narcissism influences how consumers interact in a social environment. As such, this pretest replicates and extends the correlational results of the pilot study in a more controlled setting by showing that narcissists are more likely to share information about products configured with an MC system. Moreover, narcissists tend to differentially structure their interactional patterns regarding a configured product by using more I-centered messages.

Appendix D1: Mock-up Car Configurator Study 1

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1%

Vehicle configuration

The next task gives you the opportunity to **configure a vehicle yourself**.

Imagine **you are about to buy a vehicle**. You have already chosen the **Audi A6**. But before you can place your order, you need to make a few more decisions.

On the following pages, you will be asked to choose **one of the options**. Try to put yourself in the position of buying and choose the option that suits you best spontaneously.

Please mark your answer with a **visible cross**.

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First, please choose the **exterior color** of your Audi A6.



Next, you will be asked to select the **rims** of your Audi A6.


Cast wheels in 10-segment spoke design


Cast wheels in 5-twin-spoke design


Cast wheels in 5-arm rotor design, titanium look


Cast wheels in 15-spoke star design


Forged wheels in 6-arm design


Cast wheels in 7-arm design


Cast wheels in 7-twin-spoke design


Forged wheels in 10-spoke V design, partially polished


Cast wheels in 5-segment spoke design

You also have the option of selecting the **seat covers** of your Audi A6.


Alcantara perforated/leather with S line embossing


Fabric Silhouette


Fabric Contour


Leather upholstery Milano


Alcantara/Leather Combination


Fabric Effect


Fabric sprint/leather with S line embossing


Leather Valcona with S line embossing

You will also be asked to select the **decorative inlay** for your Audi A6.



Walnut root wood dark brown



Aluminium Trigon



Ash burl wood brown natural



Micrometallic platin



Piano lacquer black



Oak wood Beaufort

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Next, you will be asked to select the **steering wheel** of your Audi A6.



Sport leather steering wheel 3 spokes with shift paddles



4-spoke leather steering wheel with shift paddles



Sport leather steering wheel 3 spokes



Sport leather steering wheel 3 spokes with shift paddles, heatable



4-spoke leather steering wheel, heatable



Leather steering wheel 4 spokes

Finally, you have the option of selecting the **infotainment system** of your Audi A6.

- **MMI.** The Multi Media Interface (MMI) elegantly combines the operation of all infotainment components in one display and operating system. It enables the simple, fast and intuitive use of a multitude of functions and technologies.
- **MMI Navigation plus with MMI touch.** The latest generation of navigation systems: MMI Navigation plus offers plenty of convenience. The system includes hard disk navigation, a jukebox with 10 gigabytes of memory, a CD/DVD drive and an integrated voice dialog system with full-word input.
- **MMI Navigation.** MMI Navigation is a fully integrated navigation system - the control centre for all infotainment functions. The navigation data supplied contains digital maps. The dynamic destination guidance permanently adjusts the route on the basis of current traffic information.

Appendix D2: Sample Configurations and Messages Study 1

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Audi A6 Community

There is a community around the Audi A6. This Audi A6 Community consists of people who are enthusiastic about the Audi A6 and are very familiar with its various equipment variants. The exchange between the people takes place via their own Audi A6 Internet forum.

Just recently, **a forum user summarized the preferences of the Audi A6 Community and would like to show them to you.** The forum user therefore sends you the following message within this survey:

Dear Audi A6 Configuring User,
I would like to introduce you to an Audi A6 that I just configured. As I'm very good with cars, I've chosen the best options for the six attributes while I took care that they fit well together.



Exterior color: **Ibis White**
Wheels: **Cast wheels in 5-segment spoke design**
Seat covers: **Alcantara perforated/leather with S line embossing**
Decorative inlay: **Aluminum Trigon**
Steering Wheel: **Leather steering wheel, heatable**
Infotainment: **MMI**

Click on the **Next**-Button.

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Dear Audi A6 Configuring User,
I would like to introduce you to an Audi A6 that I just configured. As I'm very good with cars, I've chosen the best options for the six attributes while I took care that they fit well together.



Exterior color: **Ibis White**
Wheels: **Cast wheels in 5-segment spoke design**
Seat covers: **Alcantara perforated/leather with S line embossing**
Decorative inlay: **Aluminum Trigon**
Steering Wheel: **Leather steering wheel, heatable**
Infotainment: **MMI**

Above you can see the feedback of the Audi A6 Community. **Please select the exterior color of your choice again.**



Overview: Four different messages

Dear Audi A6 Configuring User, I would like to introduce you to an Audi A6 that I just configured. As I'm very good with cars, I've chosen the best options for the six attributes while I took care that they fit well together.	Dear Audi A6 Configuring User, I would like to introduce you to an Audi A6 that I just configured. I have chosen specific options for the six attributes: exterior color, rims, seat upholstery, interior decor, steering wheel, and sound system.
Dear Audi A6 Configuring User, The Audi A6 presented below has just been configured. The best options were chosen for the six attributes while care was taken that they fit well together.	Dear Audi A6 Configuring User, The Audi A6 presented below has just been configured. Specific options have been chosen for the six attributes exterior color, rims, seat upholstery, interior décor, steering wheel, and sound system.

Overview: Four different sample configurations



Exterior color: **Ibis White**
Wheels: **Cast wheels in 5-segment spoke design**
Seat covers: **Alcantara perforated/leather with S line embossing**
Decorative inlay: **Aluminum Trigon**
Steering Wheel: **Leather steering wheel, heatable**
Infotainment: **MMI**



Exterior color: **Garnet Red Pearl**
Wheels: **Cast wheels in 5-twin-spoke design**
Seat covers: **Leather Valcona with S line embossing**
Decorative inlay: **Oak wood Beaufort**
Steering Wheel: **Leather steering wheel**
Infotainment: **MMI Navigation**



Exterior color: **Nogaro Blue Pearl**
Wheels: **Forged wheels in 10-spoke V design**
Seat covers: **Fabric Silhouette**
Decorative inlay: **Walnut root wood dark brown**
Steering Wheel: **Sport leather steering wheel**
Infotainment: **MMI**



Exterior color: **Phantom Black Pearl**
Wheels: **Forged wheels in 6-arm design**
Seat covers: **Leather upholstery Milano**
Decorative inlay: **Ash burl wood brown natural**
Steering Wheel: **Sport leather steering wheel 3 spokes with shift paddles, heatable**
Infotainment: **MMI Navigation plus with MMI touch**

References

Baumgarten, S. (1975). The innovative communicator in the diffusion process. *Journal of Marketing Research, 12*(1), 12–18.

Foster, J. D., & Campbell, W. K. (2007). Are there such things as “Narcissists” in social psychology? A taxometric analysis of the Narcissistic Personality Inventory. *Personality and Individual Differences, 43*(6), 1321–1332.

Raskin, R., & Shaw, R. (1988). Narcissism and the use of personal pronouns. *Journal of Personality, 56*(2), 393–404.

Schütz, A., Marcus, B., & Sellin, I. (2004). Die Messung von Narzissmus als Persönlichkeitskonstrukt. Psychometrische Eigenschaften einer Lang- und einer Kurzform des Deutschen NPI (Narcissistic Personality Inventory). *Diagnostica, 50*, 202–218.