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Consumers' self-construal: Measurement and relevance for social media communication success

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Abstract

To determine the relevance of consumers' self-construal in social media contexts, this study investigates its effects on social media success metrics, such as sharing behaviour, as well as its influence on the relationship between social media success and other drivers, such as endorsers' emotion displays or the communication source (user vs. company). Along with an in-depth review of consumers' self-construal, this article reports on two quantitative panel studies, which reveal that eight items are best suited to represent consumers' self-construal, using correlated dimensions of interdependent and independent self-construal. The main study affirms the relevance of consumers' self-construal and offers detailed insights. Consumers with a strong interdependent self-construal express more positive attitudes toward social media posts, and a smiling endorser positively influences attitudes toward the post, sharing behaviour, word of mouth, and purchase intention. In combination, a strong interdependent self-construal and smiling endorser produce even stronger effects for attitudes toward the post, purchase intention, and word of mouth. User-generated content outperforms company-generated content, independent of self-construal types. These findings have important implications for social media communication management and personality research.

1 | INTRODUCTION

Social media advertising is estimated to grow at average rates of 14%–19% annually between 2018 and 2021, amounting to US$177.6 billion by 2021 (Zenith Media, 2019). Marketers use social platforms, such as Facebook, to promote their products (Statista, 2018), and consumers use them to promote themselves (Dimitriu & Guesalaga, 2017). But who are the people who engage the most with social media? We seek to address this fundamental question by describing the kind of personality that social media users exhibit, then use these insights to predict which users are more likely to engage in communication (e.g., liking, sharing a post; Berg et al., 2015; Lee et al., 2012) or product-related behaviours (e.g., purchase intention, word of mouth [WOM]; Eisingerich et al., 2015; Fang, 2017) as relevant measures of social media success.

In particular, this study considers how people seek to define themselves, in terms of their relations with others or group affiliations (Agrawal & Maheswaran, 2005). Someone with a strong independent self-construal (I-SC) generally seeks to minimize others' influences on their own self-schema, such that they exhibit a bounded, autonomous self. But people with a strong interdependent self-construal (R-SC) readily include others into their views of their selves and tend to conform with situational norms (Kim & Markus, 1999; Markus & Kitayama, 1991; Youn & Kim, 2019). Arguably, this latter group of R-SC users might engage more in communication behaviours, such as through social media, because of their social tendencies and focus on...
relationships with others (Cross et al., 2000). We seek to test this assertion by considering whether R-SC influences social media success or influences the links between social media success and other factors.

To address such questions, we first need a good conceptual understanding of self-constructs (SC) and a parsimonious, valid scale to measure it. Debate about the conceptualization of SC persists, specifically with regard to whether I-SC and R-SC are separate, distinct constructs (Singelis, 1994) or if they represent opposite sides of a single, bipolar construct (Triandis et al., 1986). A popular measure, suggested by Singelis (1994), uses separate scores for I-SC and R-SC. Yet despite its widespread application (Hardin et al., 2004), this measure suffers from some serious validity problems (D’Amico & Scrima, 2016; Levine et al., 2003; Matsumoto, 1999; Oyserman et al., 2002) and tends to be reduced to just a few items. We theoretically examine SC through an extensive review of literature (conceptualization), then propose a valid and reliable measurement instrument (operationalization), using a subset of items from Singelis (1994).

To avoid limiting this study to the exclusive effects of SC on social media success, we also consider other crucial factors, such as visual elements exhibited by endorsers. Communication effectiveness increases in the presence of emotional elements (Kemp et al., 2012), because they evoke more attention to the communication instrument and the product (Mai & Schöller, 2009). Posts with emotional content, including endorsers’ displays of specific emotions, can encourage social media sharing behaviour too (Kemp et al., 2012). In practice, we find mixed uses of smiling and non-smiling endorsers, suggesting the need for insights regarding whether smiling endorsers outperform non-smiling endorsers and if the outcomes depend on the specific product or communication campaign. Accordingly, we investigate the influence of endorsers’ emotion displays on social media success, both alone and in combination with R-SC.

The unique characteristics of social media also make it pertinent to consider the source of the content, to test whether user-generated content (UGC) might be superior to company-generated content (CGC) and whether recipients’ SC might inform this insight. Companies can benefit from UGC (Bickart & Schindler, 2001), because promotional activity by users through social media assigns more credibility to the product. A private message sender tends to appear more credible than a commercial one (Hautz et al., 2014). Furthermore, UGC implies greater collaboration and engagement by other consumers (Thompson & Malaviya, 2013), which might encourage commitment from message recipients and thereby enhance their sharing and liking behaviour, as relevant success metrics (Thompson & Malaviya, 2013). Yet in some cases, users may question the expertise of other consumers and prefer CGC over UGC, to obtain expert knowledge about the product (Cox et al., 2009). In both practice and research, we find mixed results regarding the relative superiority of UGC and CGC (Cox et al., 2009; Du Plessis et al., 2016; Thompson & Malaviya, 2013). We seek to resolve some of these conflicting findings by considering how R-SC might inform the link between the communication source and social media success.

## 2 CONCEPTUAL BACKGROUND AND LITERATURE REVIEW

Starting with Markus and Kitayama’s (1991) ground-breaking paper on SC and its association with culture, substantial research has sought to understand the concept and measurement of SC, as well as investigate its effects, such as in social media interactions. With an extensive literature review, we gain insights into key issues and relevant research gaps (Table 1), along three lines. First, we consider publications related to the conceptualization and operationalization of SC. Second, we present a review of articles that focus primarily on R-SC. Third, this section reviews articles dealing with SC in social media contexts.

People with a strong I-SC appreciate their independence from others and prefer to express uniqueness, while developing distinct forms of potential. People with strong R-SC instead value relationships with others and realize that their lives are determined, to some extent, by others’ behaviours (Markus & Kitayama, 1991). As noted, we have no clear answer to the question of whether I-SC and R-SC are separate, independent constructs (Fang, 2017; Singelis, 1994) or values on a bipolar scale (Triandis et al., 1986). Some research finds no significant relationships between them (Singelis, 1994), but other studies cite positive (Wang & Wang, 2016) or negative (Gudykunst et al., 1996) correlations between the dimensions. Some researchers also propose a multidimensional SC construct with six factors, including individualism, autonomy, group esteem, and relational interdependence (Hardin et al., 2004). Yet another view suggests that people maintain two views of themselves, such that I-SC and R-SC might be orthogonal and not mutually exclusive (Chen & Marcus, 2012; Cross et al., 2011; Singelis, 1994; Singelis et al., 1999).

In turn, various operationalization of SC appear in prior research (Grace & Cramer, 2003; Harb & Smith, 2008; Singelis, 1994). A 24-item scale, with 12 items to measure I-SC and 12 items to measure R-SC (Singelis, 1994; Singelis et al., 1999), is popular among studies focusing on measuring SC (Chang, 2015; Millan & Reynolds, 2014). However, its validity problems (D’Amico & Scrima, 2016; Levine et al., 2003) also prompt some researchers to use a version with fewer items. For example, D’Amico and Scrima (2016) propose a 10-item version, and Fang (2017) relies on six of Singelis’s 24-item scale. Rather than taking two separate views of SC, a few studies measure it by combining two subscales pertaining to I-SC and R-SC. Chang (2015) averages responses to the items in the R-SC scale, then adds reversed values of the averaged items in the I-SC scale, such that higher values indicate a stronger orientation toward R-SC. Lee et al. (2000) use a median split, such that half of the participants are coded as dominant in I-SC and half are coded as dominant in R-SC.

Another research stream seeks to define the relationships of SC with other variables, with examples from both psychology and consumer behaviour domains, as well as social media. In this latter context, R-SC is highly relevant, in that users with strong R-SC spend significantly more time on social networks (Chang, 2015). Platforms that offer space for social interaction also benefit these users particularly, because of their concern with their social relationships and
| Authors and Journal | Main theories; discipline | Study constructs: IV, M, MO, DV | Empirical characteristics | Key findings on role of I-S and I-SC | Key findings on role of R-S and R-SC | Key contributions and research gaps |
|---------------------|---------------------------|---------------------------------|--------------------------|------------------------------------|-----------------------------------|----------------------------------|
| Markus & Kitayama (1991), Psychological Review | Cognition, emotion, motivation; SC theory | | Independence from others by attending to the self and by discovering and expressing their unique and inner attributes; I-SC focuses on self-actualization, expressing one’s unique configuration of needs, rights, and capacities, developing one’s distinct potential | Fundamental relatedness of individuals to each other. The R-SC is defined (p. 227) as “seeing oneself as part of an encompassing relationship and recognizing that one’s behaviour is determined, contingent on and, to a large extent, organized by what the actor perceives to be the thoughts, feelings, and actions of others in the relationship” | Propose that self-construals influence individuals’ experience including cognition, emotion, and motivation; Gap: Investigate consequences of distinction between I-SC and R-SC on various personality constructs |
| Singelis (1994), Personality and Social Psychology Bulletin | SC theory | Self-construal scale (SCS) development | Twelve-items are proposed to measure I-SC; two-factor structure of the scale; there are no reversed items on the SCS | Twelve-items are proposed to measure R-SC; two distinct dimensions of the scale | Prior measures of individualism–collectivism used a single bipolar scale; cultural groups can be defined along a continuum, for individuals, the dimensions have to be separate; coexistence of two aspects of self; Gap: Gain a better understanding of cultural and individual differences by using SCS in different contexts |
| Lee et al. (2000); Journal of Personality and Social Psychology | Regulatory focus theory; SC theory; Advertising | IV: Regulatory focus (Frame: promotion vs. prevention); Event type (Individual vs. team); Thought type (Self vs. other); Culture (North America vs. East Asian) MO: SC DV: Goal pursuit | Experimental design; \( n_1 = 90 \), measurement of chronic SC; \( n_2 = 72 \), manipulation of situational SC; \( n_3 = 98 \), chronic SC was operationalized quasi-experimentally through country status (United States and China); \( n_4 = 65 \); \( n_5 = 215 \) | SCS (Singelis, 1994) Median split was performed on the SCS; Half of the participants were coded as having a dominant I-S (high I-SC and low R-SC) and were predicted to place more emphasis on promotion-focused information | The remaining half was coded as having a dominant R-S (i.e., low I-SC and high R-SC) Individuals with a dominant R-SC were predicted to place more emphasis on prevention-focused information | Found that for individuals with distinct SCs promotion and prevention strategies for goal pursuit differ; Gap: Investigate if findings can be equally applied to horizontal and vertical differences in individualism and collectivism |

(Continues)
| Authors and Journal | Main theories; discipline | Study constructs: IV, M, MO, DV | Empirical characteristics | Key findings on role of I-S and I-SC | Key findings on role of R-S and R-SC | Key contributions and research gaps |
|---------------------|---------------------------|---------------------------------|--------------------------|---------------------------------|---------------------------------|---------------------------------|
| Millan & Reynolds (2014), *Journal of Retailing and Consumer Services* | SC theory; Congruity theory; Consumer Behaviour; Clothing/Fashion industry | IV: I-S, R-S; M: Preference for self-expressive and hedonic meanings; preference for status meaning; preference for affiliation meaning; DV: frequency of shop's visits to see new arrivals; frequency of clothing purchases; money spent on clothing | Survey design; n = 1059 face-to-face interviews in Czech Republic | Singelis et al.’s (1999) updated scale; three items retained; I-S positively affects preference for self-expressive and hedonic meanings; status meaning and negatively affects status meaning; negative effect on one DV (frequency of clothing purchases); show no interest in clothing affiliation and status symbolism | Singelis et al.’s (1999) updated scale; four items retained; R-S positively affects preference for self-expressive and hedonic meanings; negative effect on one DV (frequency of clothing purchases); show no interest in clothing affiliation and status symbolism | Proposed an updated, reduced scale consisting of three items for I-SC and four items for R-SC; Gap: Investigate the role of I-SC and R-SC in explaining consumption behaviour of different product categories |
| Hess et al. (2016), *Journal of Nonverbal Behavior* | SC theory; Culture; Emotion expression | IV: culture (country: Germany/Greece); emotion expression (anger/disgust/happy/sad); social context (congruent/neutral/no social context); M: R-SC; DV: perception of emotions | Assessment of Contextualized Emotions-faces (ACE-faces); n = 177 (87 German and 90 Greek participants) | Revised SCS (Singelis, 1994) by Kwan, Bond and Singelis (1997); independent subscale (15 items) | Revised SCS (Singelis, 1994) by Kwan et al. (1997); interdependent subscale (15 items); R-SC as important mechanism in emotion expression processing | Applied a revised SCS and found two uncorrelated dimensions; propose that when studying cultural differences, country and individual level factors should be considered; Gap: Consider effects of posed and spontaneous facial expressions when studying SC orientations |
| Wang & Wang (2016), *Personality and Individual Differences* | SC theory; Creativity in collectivist culture | IV: I-SC; R-SC; self-esteem; MO: self-esteem; DV: creativity | Survey design; n = 316 junior school students; SCS; Rosenberg Self-Esteem Scale; Test of Divergent Feeling | SCS (Singelis, 1994); independent subscale (12 items); I-SCs are beneficial to creativity and more conducive to creativity than R-SC | SCS (Singelis, 1994); interdependent subscale (12 items); R-SCs are beneficial to creativity | Found that two types of SC coexist and are positively correlated with each other; Gap: Check reliability using a multicultural sample and exploring gender differences in SC |
| Fang (2017), *Psychology & Marketing* | SC theory; M-commerce marketing | IV: Localization; ubiquity; interactivity; social presence; M: perceived usefulness; consumer brand engagement (CBE); MOD: I-SC (utilitarian path); R-SC (engagement path); DV: continuance intention; repurchase intention | Survey design; n = 637 users of several branded apps | SCS (Singelis, 1994); independent subscale (three items); for I-SCs localization and interactivity had a greater influence on perceived usefulness which had a greater effect on continuance intention; I-SCs use their own thoughts to no sig. impact on repurchase intention; importance of sense of usefulness | SCS (Singelis, 1994); interdependent subscale (three items); for R-SC interactivity and social presence had a greater impact on CBE and CBE had a greater influence on continuance intention and less on repurchase intention; for R-SC it is difficult to increase loyalty; importance of human-like interaction | Proposed a reduced scale consisting of three items for I-SC and three items for R-SC; new perspectives on how to design branded apps; Gap: Validate findings of other types of apps with longitudinal and experimental studies |
| Authors and Journal | Main theories; discipline | Study constructs: IV, M, MO, DV | Empirical characteristics | Key findings on role of I-S and I-SC | Key findings on role of R-S and R-SC | Key contributions and research gaps |
|---------------------|---------------------------|---------------------------------|--------------------------|----------------------------------|------------------------------------|---------------------------------|
| Chang (2015), *Computers in Human Behavior* | SC theory; Social network research | Study 1: IV: R-SC, RI-SC; M: Interaction orientation (IO): Responsiveness; Self-disclosure; DV: responsive and self-revealing FB behaviour | Survey design; \(n_1 = 932\) college students; \(n_2 = 872\) college students | Singelis’s (1994) SCS, with two subscales: I-SC and R-SC; I-SC is not associated with social goal to belong, but a negative predictor of social goal to be popular; positive predictor for social responsiveness, but negative predictor for self-disclosure | Singelis’s (1994) SCS with R-SC subscale; R-SC is a positive predictor for both social goals, to belong and to be popular; passive social goal (to belong) leads to responsive FB behaviour; aggressive social goal (be popular) leads to responsive and revealing FB behaviour; positive predictor for social responsiveness and self-disclosure | Examines I-SC and R-SC both as two separate constructs and as one bipolar construct, RI-SC; which was built by averaging the reversed responses to the items in the I-SC scale with the items in the R-SC; higher numbers indicate a greater orientation toward an R-SC; Report relationship between I-SC and R-SC and Facebook activities; people with higher R-SC spend more time on FB; Gap: Single focus on FB activities, only categorized into two specific behaviours (responding and self-revealing) |
| Haberstroh et al. (2018), *International Marketing Review* | SC theory; Self-congruity theory; International marketing research | Study 1: IV: harmony; MOD: R-SC; DV: attractiveness; Study 2: IV: harmony; type of marketing visual; country; MOD: R-SC; DV: attractiveness; Study 3: IV: harmony; stimulus type; SC; M: self-congruity; attractiveness; DV: behavioural response | Experimental design; \(n_1 = 181\) students; \(n_2 = 950\) consumers; \(n_3 = 289\) panel participants | Study 1: SCS (Singelis & Sharkey, 1995); Study 3: SC priming; SC moderates effect of visual harmony on attractiveness | Study 1: SCS (Singelis & Sharkey, 1995); Study 2: SCS (Singelis, 1994); Study 3: SC priming; pos. effect of harmony on attractiveness is more pronounced for R-SCs | Found that SC moderates the effect of visual harmony on attractiveness; Gap: Explore linkages between SC and other marketing visuals |
| Authors and Journal | Main theories; discipline | Study constructs: IV, M, MO, DV | Empirical characteristics | Key findings on role of I-S and I-SC | Key findings on role of R-S and R-SC | Key contributions and research gaps |
|---------------------|--------------------------|---------------------------------|--------------------------|-------------------------------------|------------------------------------|----------------------------------|
| **Chen & Marcus (2012), Computers in Human Behavior** | SC theory; Social network research | IV: individualism; extraversion; DV: self-disclosure | Survey design; \(n = 463\) undergraduate psychology students | Individuals with I-SCs (idiocentrics) are individualistic; four item measure (Wagner, 1995) → higher scores represent I-SCs and lower scores R-SC | Individuals with an R-SC (allocentrics) are collectivist; collectivist individuals are low on extraversion disclose the least honest and most audience-relevant information online | Found that individuals disclose differently online versus in person; Culture and personality play a role; Gap: Homogenous student sample; culture and instructors’ views are neglected |
| **Lee et al. (2012), Computers in Human Behavior** | SC theory; Social cognitive theory; Social network research | IV: SC; M: social outcome expectations; online community engagement self-efficacy; DV: eWOM intention | Experimental design; \(n = 160\) college students; 2 (SC: I-SC vs. R-SC) \(\times\) 2 (online brand communities: consumer- versus marketer-created) | SC priming: participants read a short story—I-SC priming condition | R-SC priming condition; R-SC positively influences eWOM through their community engagement self-efficacy and their social outcome expectations; consumers’ relational view became salient when the consumers’ SC was primed R-SC rather than I-SC | Found that SC directly accounted for all total effects on self-efficacy and indirectly on social outcome expectations and eWOM behavioural intention; Gap: Only college students in one country and only a hedonic product were considered |
| **Hawi & Samaha (2018), Behaviour & Information Technology** | SC theory; Internet and social media | IV: self-esteem; satisfaction with life; I-SC; R-SC; big 5 personality dimensions; sex; age; DV: internet and social media addiction | Survey design; \(n = 512\) undergraduate students | SCS (Singelis, 1994); negative association of I-SC with social media addiction (less concerned about active social media engagement) | SCS (Singelis, 1994); R-SC did not predict internet or social media addiction | Internet addiction and social media addiction have more similarities than differences; Gap: Internet addiction as part of social media addiction or other way round; more diverse sample |
| Authors and Journal | Main theories; discipline | Study constructs: IV, M, MO, DV | Empirical characteristics | Key findings on role of I-S and I-SC | Key findings on role of R-S and R-SC | Key contributions and research gaps |
|---------------------|---------------------------|---------------------------------|--------------------------|------------------------------------|------------------------------------|-----------------------------------|
| Wang & Lalwani (2019), *Journal of Business Research* | SC theory; Attribution theory | Study 1: IV/MOD: social inclusion (exclusion); SC; DV: impression management goal (IMG); Study 2: see Study 1; M: identification with ingroups; Study 3: see Study 1; MOD: attribution of responsibilities; Study 4 see Study 1; MOD: context (public/private) | Experimental design; $n_1 = 142$ Mturkers; $n_2 = 148$ Mturkers; $n_3 = 188$ Mturkers; $n_4 = 257$ Mturkers and undergraduate students | Study 1: SCS (Triandis & Gelfand, 1998); independent subscale (eight items); Study 2: SC priming (count number of pronouns); Study 3: SCS (Brewer & Chen, 2007); independent subscale (three items); Study 4: SCS (Triandis & Gelfand, 1998); I-SCs do not change IMGs | Study 1: SCS (Triandis & Gelfand, 1998); interdependent subscale (six items); Study 2: SC priming (count number of pronouns); Study 3: SCS (Brewer & Chen, 2007); interdependent subscale (six items); Study 4: SCS (Triandis & Gelfand, 1998); R-SCs discard IMGs when socially excluded and pay more for publicly consumed products | Used different measures of SCS; Found that managers should include R-SCs when promoting publicly consumed products; Gap: Explore boundary conditions for de- versus increasing desire to connect with in-groups when socially excluded |
| Our Study | SC theory; Discrete emotion theory; Source credibility theory; Social media | Main Study: IV: R-SC; emotion display; communication source; DV: attitudes toward the post; sharing behaviour; purchase intention; WOM; Control: age | Pre-Study: survey design; $n_1 = 143$ German panel data; Main Study: experimental design; $n_2 = 329$ German panel data | Pre-Study: SCS (Singelis, 1994), independent subscale (12 items); superiority of eight-item two-factor model: independent subscale (four items); Main Study: independent subscale (four items) confirmed | Pre-Study: SCS (Singelis, 1994), interdependent subscale (12 items); superiority of eight-item two-factor model: interdependent subscale (four items); Main Study: interdependent subscale confirmed; Consumers with a strong R-SC looking at a post with a smiling endorser show the most positive attitudes toward the post, purchase intention, and WOM | Propose an eight-item scale based on Singelis's (1994) 24-item SCS with four items to represent I-SC and R-SC, respectively; Dimensions are correlated; Find that R-SC is a significant driver of consumers’ attitudes toward the post; Interactions of R-SC with endorsers’ emotion displays on DVs are reported; Gap: Replication of the study with a sample of another cultural background |
willfulness to invest in maintaining them. With evidence that it may be possible to select only one dimension (Chang, 2015; Haberstroh et al., 2018), social media studies often tend to focus just on R-SC, showing that people with strong R-SC are more engaged in two pertinent social media activities: self-disclosure and responsiveness. Among these engaged R-SC consumers, active users often post content; more passive ones tend to read and react to others’ content, such as by liking it (Chang, 2015). Considering that SC, and specifically R-SC, thus appears to be a decisive factor for social media success, it is not surprising that this context has attracted substantial research interest (Chang, 2015; Chen & Marcus, 2012; Hawi & Samaha, 2018; Lee et al., 2012; Wang & Lalwani, 2019).

This review of SC literature across consumer behaviour and related disciplines in turn reveals two critical gaps. First, no clear conceptualization or operationalization of SC exists. Second, research on SC as it relates to social media is increasing, yet it remains at an early stage, with many unexplored areas. To contribute to this research domain (see the last row of Table 1), we adopt SC theory (Markus & Kitayama, 1991) but also integrate discrete emotion theory (Ekman, 1992) and source credibility theory (Hovland et al., 1953).

3 | HYPOTHESES DEVELOPMENT

Following previous research on SC in social media settings (Chang, 2015), the present study focuses on how consumers’ R-SC might inform social media success, as well as how it interacts with endorsers’ emotion displays and communication sources to produce success outcomes, measured as either communication behaviours (liking and sharing the post; Berg et al., 2015; Lee et al., 2012) or product-related behaviours (increased purchase intention and WOM; Eisingerich et al., 2015; Fang, 2017).

Emotions are contagious (Ekman, 1992) and thus relevant for communication success in both traditional and social media advertising settings (Chen & Wyer Jr., 2020; Smith & Rose, 2020). We integrate emotions in the form of endorsers’ emotion displays. Communication sources also have fundamental importance, especially in social media, with strong influences on customer intentions and behaviour. Trustworthiness and expertise assessments tend to differ between private and commercial sources (Cheong & Morrison, 2008; Hautz et al., 2014), though no clear superiority can be assigned to one over the other. Thus we include the communication source (user vs. company) in the model to inform this debate. Figure 1 provides an overview of the research model.

Consumers’ self-perceptions, relative to others, affect their evaluations and decision making (Lin, 2001). Consumers with strong R-SC favor connectedness and group harmony; they view themselves as group members (Agrawal & Maheswaran, 2005) or parts of close relationships (Cross et al., 2000; Markus & Kitayama, 1991) and rely on the opinions of in-group members (Iyengar & Lepper, 1999). Social responsiveness is important, and they actively seek social coherence, especially in social contexts (Lee et al., 2012; Ybarra & Trafimow, 1998). On social networking platforms, they can present themselves, verify information, interact with others, and comment on others’ posts (Chang, 2015). Prior studies thus establish a link between R-SC and social media behaviours (Chang, 2015; Lee et al., 2012), such that people with strong R-SC spend more time on social media sites (e.g., Facebook; Chang, 2015), post more, and feel like part of their Facebook community (Lee et al., 2012). With their community aspirations and social outcome expectations, these strong R-SC consumers engage in substantial communication and sharing behaviour (Lee et al., 2012), which we define as “any positive or negative statement made by potential, actual, or former customers about a product or company, which is made available to a multitude of people and institutions via internet” (Hennig-Thurau et al., 2004, p. 39). They want to share information with others (Lee et al., 2012), such that strong R-SC should enhance consumers’ cooperative and supportive behaviours (Holland et al., 2004).

In addition to their attitudes toward social media posts (which is similar to attitudes toward the ad, defined as “a learned predisposition to respond in a consistently favourable or unfavourable manner toward advertising in general”; MacKenzie & Lutz, 1989, p. 49), they should display more product-related behaviour, in terms of WOM, defined as “informal, person-to-person communication between a perceived non-commercial communicator and a receiver regarding a brand, a product, an organization, or a service” (Harrison-Walker, 2001, p. 63). Correspondingly, they might exhibit a higher purchase intention (i.e., “the possibility that consumers will plan or be willing to purchase a certain product or service in the future”; Wu et al., 2011, p. 32; refer to Lee et al., 2012). People with strong R-SC tend to be socially responsive, so in addition to disclosing their personal information, they allow their behaviours to be guided by the social media posts of other users, which express those other users’ perceptions, thoughts, and actions (Chang, 2015). We hypothesize a positive main effect of R-SC on social media success metrics:

H1. When a consumer with a strong (vs. weak) interdependent self-construal views a social media post, it leads to heightened (a) positive attitudes toward the post, (b) sharing behaviour, (c) purchase intention, and (d) WOM.
Marketers often draw on emotional elements to increase advertising effectiveness (Chen & Wyer Jr., 2020; Smith & Rose, 2020; Wood, 2012), and facial expressions of endorsers can signal emotions (Mai & Schöller, 2009). According to discrete emotion theory (Ekman, 1992), emotions are “discrete, automatic responses to universally shared, culture-specific and individual-specific events” (Ekman & Cordaro, 2011, p. 364). There are seven basic emotions (joy, fear, anger, contempt, surprise, disgust, and sadness), which are independent of context and culture and can be expressed through prototypical facial patterns (Ekman et al., 2002). In practice, marketing communications might feature smiling endorsers (e.g., Apple, Canon), non-smiling (neutral) endorsers (e.g., Sony), or both (e.g., Samsung). However, research suggests displaying positive emotions (i.e., joy expressed through a smiling endorser), which are more likely to be remembered (Mai & Schöller, 2009) and increase favorable customer responses (Kemp et al., 2012). Positive emotion displays encourage more positive attitudes toward the ad (Berg et al., 2015). In social media settings, both positive and negative emotions can induce sharing behaviour (Swani et al., 2013). In general, highly emotional ads appear more likely to be shared online (Alhabash et al., 2013). According to Ekman (1992), a neutral or non-smiling facial expression does not represent an emotion; compared with a smiling face, it thus should lead to weaker emotional, cognitive, or behavioural responses. Moreover, positive emotion displays prompt product-related behaviours, such as purchase intention (Chen & Wyer Jr., 2020; Kamran & Siddiqui, 2019) and WOM. Therefore, we hypothesize:

H2. A social media post with a smiling (vs. non-smiling) endorser leads to heightened (a) positive attitudes toward the post, (b) sharing behaviour, (c) purchase intention, and (d) WOM.

When investigating how emotions inform consumer behaviour, SC is also relevant (Aaker & Williams, 1998), because it influences both the expression (Kim & Johnson, 2016; Markus & Kitayama, 1991) and processing (Hess et al., 2016; Ma-Kellams & Blascovich, 2012) of emotions. Consumers with strong R-SC are more socially oriented and concerned about connecting and engaging with a brand (Fang, 2017). They assimilate with others and view themselves as members of a group, such that they invest heavily in maintaining social relationships (Agrawal & Maheswaran, 2005). Accordingly, people with strong R-SC focus more intensely on others’ emotions (Ma-Kellams & Blascovich, 2012), in support of their attempt to maintain group harmony (Ma-Kellams & Blascovich, 2012; Singelis, 1994). Because they also rely on others as sources of information, people with strong R-SC can decode others’ emotions more accurately and tend to show more empathy (Ma-Kellams & Blascovich, 2012).

This reasoning suggests that consumers react to emotional stimuli differently, depending on their SC (Hess et al., 2016). As Ekman (1992) asserts, a smiling endorser expresses happiness, whereas a non-smiling endorser indicates neutrality (Ekman & Cordaro, 2011). In their search for harmony in their relationships, people with strong R-SC should appreciate visual signals congruent with these values (Haberstroh et al., 2018), such as smiling endorsers, who indicate harmony and happiness (Kulczyński et al., 2016), so they may evoke more positive responses. In contrast, posts with a non-smiling endorser do not signal harmony (Markus & Kitayama, 1991) and may be less appreciated. Reflecting our expectation of an interaction effect between R-SC and endorsers’ emotion displays, such that consumers with strong R-SC should respond more positively to social media posts with a smiling endorser, we hypothesize:

H3. There is an interaction effect between consumers’ self-construal and endorsers’ emotion displays, such that for consumers with strong (vs. weak) R-SC, the effects of a social media post with a smiling (vs. non-smiling) endorser are stronger for their (a) attitudes toward the post, (b) sharing behaviour, (c) purchase intention, and (d) WOM.

Content available through social media come from different sources, such as brands and companies or consumers (Hautz et al., 2014). In line with source credibility theory, consumer persuasion increases when information comes from credible sources (Hovland et al., 1953), which are perceived to possess expertise and be trustworthy, because they appear honest and believable (Shimp, 2000). However, perceptions of source credibility differ for professional versus private sources. Company-generated content evokes perceptions of expertise (Cox et al., 2009), which is difficult to assess for UGC (Bronner & De Hoog, 2010); in contrast, UGC comes from a sender who appears less biased and thus more trustworthy (Cheong & Morrison, 2008; Hautz et al., 2014). In social media, UGC may be especially effective, in terms of credibility (Bickart & Schindler, 2001), because the sender likely is a member of the message recipient’s personal network (Chu & Kim, 2011) and thus similar in some way (Young, 2015). Prior evidence also indicates that UGC in social media enhances behavioural intentions, such as attitudes toward a product (Christodoulides et al., 2012) and willingness to recommend (Kim & Johnson, 2016; Sun et al., 2006). It also can activate consumers’ cognitive and emotional responses, which influence behavioural intentions, such as sharing (Kim & Johnson, 2016). Moreover, UGC signals collaboration and engagement with consumers (Thompson & Malaviya, 2013). We follow the latter and in the literature prevalent argumentation that UGC outperforms CGC (Bickart & Schindler, 2001; Cheong & Morrison, 2008; Hautz et al., 2014), especially on social media platforms, such as Facebook (Chu & Kim, 2011; Lu & Stepchenkova, 2015; Young, 2015), and predict its positive effects:

H4. A social media post from a user (vs. company) leads to heightened (a) attitudes toward the post, (b) sharing behaviour, (c) purchase intention, and (d) WOM.

The communication source also might interact with recipients’ R-SC, to predict online behaviour (Frost et al., 2010; Moses et al., 2018). If UGC can outperform CGC in social media (Chu & Kim, 2011), it also
might strengthen the effect of R-SC on success metrics. For consumers with strong R-SC, integration within social networks is highly important, due to their dependence on social connections (Moses et al., 2018), and UGC provides them with access to a trustworthy information source, embedded in their personal network (Chu & Kim, 2011). In their efforts to maintain and strengthen their social bonds, people with strong R-SC likely are active in their networks, where UGC is shared (Chu & Kim, 2011; Moses et al., 2018). Therefore, we propose:

H5. There is an interaction effect between consumers’ self-construal and the communication source, such that for consumers with strong (vs. weak) R-SC, the effects of a social media post originating from a user (vs. company) are stronger on (a) attitudes toward the post, (b) sharing behaviour, (c) purchase intention, and (d) WOM.

4 | PRE-STUDY

4.1 | Research setting, procedure, and participants

We seek a better understanding of the SC construct and test the SC scale (SCS) by Singelis (1994) with a pre-study. We used the online panel Clickworker to gather an adequate sample, representative of the German population (Schroll et al., 2018). The prerequisites for participation included age (18–85 years), nationality (Germany), and native language (German). A total of 143 people participated (36.90% women, 63.10% men; average age = 37.69 years, SD = 11.38). After a short introduction, they answered questions about their SC and socio-demographics. Applying the scale offered by Singelis (1994), the survey included 12 items for I-SC and 12 items for R-SC. All the construct items, in both the pre- and main study, were assessed with seven-point Likert scales, ranging from 1 = strongly disagree to 7 = strongly agree.

4.2 | Measurement model

We undertook exploratory factor analysis (EFA), reliability analyses (Cronbach’s α and item-to-total correlations), and confirmatory factor analysis (CFA) to get a better understanding of the 24-item SCS (Singelis, 1994). As the statistical criterion for item retention, we required, among others, an average factor loading above 0.50. The global fit criteria were the Chi-square ($\chi^2$), comparative fit index (CFI), root mean squared error of approximation (RMSEA), goodness-of-fit index (GFI), and root mean square residual (RMR). We also considered local fit measures: factor loading, composite reliability, and average variance extracted (AVE). For the CFA, we used AMOS in IBM SPSS 24.

The results of a first EFA, in which we required the eigenvalue to be greater than 1, yielded extractions of five and four factors for R-SC and I-SC, respectively. For R-SC, the cumulative AVE of five extracted factors is 67%. For I-SC, the four factors indicate a cumulative AVE of 58% (Table 2). These values suggest the factor structure was not sufficient, so we reduced the number of items in a step-by-step procedure. First, items that did not meet the required factor loading threshold values were excluded. Second, those items with loadings on two factors were eliminated. Third, we conducted additional EFAs with the remaining items, resulting in four-item solutions for both R-SC and I-SC, each of which offered satisfactory reliability and validity values.

Through these iterative analyses of the 24 original items, we identified eight items that best represent the SC construct, including four items that indicate R-SC and four that reflect I-SC (Table 3, Panel A). When we ran a CFA with the two factors, I-SC and R-SC emerged as slightly correlated ($r = .29, p < .05$). The second-generation fit indices are satisfactory (Fornell & Larcker, 1981; Hair et al., 1998). For example, $\chi^2(19) = 20.24$, RMSEA = 0.02, and GFI = 0.97 (Table 3, Panel B). We also applied a model comparison, which shows that the eight-item scale provided the best-fitting SC measure (Null model: 24 items, two factors, $\chi^2 = 494.57$, df = 251; Model 3: eight items, two factors, $\chi^2 = 20.24$, df = 19, $\Delta \chi^2 = 166.59$). Following a stepwise procedure to arrive at this best-fitting model (Model 3), we also looked into the goodness-of-fit of models with 16 and 12 items, respectively. To check for discriminant validity of these two constructs/factors of Model 3, we used the Fornell–Larcker criterion (Bagozzi et al., 1991) and compared their squared correlation ($r^2 = .08$) with their respective AVE ($R$-SC = 0.35; $I$-SC = 0.25). The squared multiple correlations did not exceed their AVE values, indicating discriminant validity. As suggested by prior literature (Homburg et al., 2015; Kuehnelt et al., 2019), we also tested for content validity by asking experts (faculty members) to rate the fit of the four items chosen for I-SC and a definition of I-SC as a personality trait that “requires constructing oneself as an individual whose behaviour is organized and made meaningful primarily by reference to one’s own internal repertoire of thoughts, feelings, and action, rather than by [...] others” (Markus & Kitayama, 1991, p. 226). In a parallel procedure for R-SC, we offered the definition, “seeing oneself as part of an encompassing relationship and recognizing that one’s behaviour is determined, contingent on and, to a large extent, organized by what the actor perceives to be the thoughts, feelings, and actions of others in the relationship” (Markus & Kitayama, 1991, p. 227). All experts rated the fit of the four chosen items with each construct as very high, in support of the content validity of this reduced SCS.

5 | MAIN STUDY

5.1 | Research setting, procedure, and participants

In addition to testing the relationships in H1–H5, we followed the same scale development procedures as described in the pre-study (i.e., starting with the 24 SCS items), which enabled us to examine the robustness of the R-SC and I-SC scales. The online experiment had a 2 (endorsers’ emotion display: smiling vs. non-smiling) x 2 (communication source: UGC vs. CGC) between-subjects factorial design. We
include consumers’ SC as a measured variable and age as a control variable. Similar to the pre-study, we used the Clickworker panel, with the same prerequisites, for the data collection. The total sample consisted of 329 (116 women, 213 men) respondents, with an average age of 36.11 years (SD = 12.00).

We provided these participants with a fictive social media (Facebook) post, displaying a woman (endorser) in front of a neutral background, showing a camera. The emotion display was manipulated by using photographs of the same woman (Bateson & Hui, 1992), showing her either smiling or not. To manipulate the communication source, we provided participants with a (fictive) post created by either a private user or a company (Hautz et al., 2014). The participants were randomly assigned to one of the four conditions. A short, introductory scenario asked participants to imagine that they had come across a post in their newsfeed. After they reviewed the stimulus, participants completed a questionnaire (item order randomized) that measured their SC, attitudes toward the post, sharing behaviour, purchase intention, and WOM, as well as some manipulation checks and sociodemographic items. The emotion display manipulation was checked with three items (e.g., “The endorser has a positive emotion display”), and that for the communication source was checked with two items (e.g., “The content was posted by a user”; Hautz et al., 2014). For attitudes toward the post, we adapted three items from Yi (1990). The measure of purchase intention included three items from Hagtvedt and Patrick (2008). For WOM, we used three items adapted from Eisingerich et al. (2015). Three items from Hautz et al. (2014) and one item from Kitirattarkarn et al. (2019) provide the measure of sharing behaviour.

### TABLE 2  Reliability and validity from EFA of the 24-item scale

| Item                                                                 | Pre-Study | Main Study |
|----------------------------------------------------------------------|-----------|------------|
|                                                                    | Factor #  | ITTC (EFA) | Factor #  | ITTC (EFA) |
| **Interdependent SC (R-SC): three to five factors extracted**        |           |            |           |            |
| I have respect for the authority figures with whom I interact        | 1         | 0.42 0.59  | 1         | 0.47 0.65  |
| It is important for me to maintain harmony within my group           | 1         | 0.50 0.70  | 1         | 0.44 0.77  |
| My happiness depends on the happiness of those around me             | 5         | 0.19 0.89  | 2         | 0.33 0.71  |
| I would offer my seat in a bus to my professor                       | 4         | 0.40 0.80  | 3         | 0.45 0.78  |
| I respect people who are modest about themselves                     | 1         | 0.23 0.73  | 1         | 0.30 0.73  |
| I will sacrifice my self-interest for the benefit of the group I am in| 2         | 0.60 0.68  | 2         | 0.51 0.61  |
| I often have the feeling that my relationships with others are more important than my own accomplishments | 5         | 0.38 0.55  | 2         | 0.40 0.68  |
| I should take into consideration my parents' advice when making education/career plans | 3         | 0.42 0.67  | 2         | 0.41 0.50  |
| It is important to me to respect decisions made by the group         | 1         | 0.52 0.64  | 1         | 0.54 0.73  |
| I will stay in a group if they need me, even when I'm not happy with the group | 3         | 0.28 0.75  | 2         | 0.38 0.58  |
| If my brother or sister fails, I feel responsible                     | 4         | 0.30 0.77  | 3         | 0.36 0.59  |
| Even when I strongly disagree with group members, I avoid an argument | 2         | 0.57 0.82  | 3         | 0.33 0.64  |
| **Independent SC (I-SC): three to four factors extracted**          |           |            |           |            |
| I'd rather say “No” directly, than risk being misunderstood          | 1         | -0.03 0.34 | 3         | 0.21 0.68  |
| Speaking up during a class is not a problem for me                   | 1         | 0.48 0.50  | 1         | 0.46 0.46  |
| My personal identity independent of others, is very important to me  | 1         | 0.48 0.72  | 1         | 0.55 0.73  |
| Having a lively imagination is important to me                       | 2         | 0.32 0.72  | 1         | 0.34 0.61  |
| I am comfortable with being singled out for praise or rewards        | 4         | 0.27 0.51  | 1         | 0.34 0.52  |
| I am the same person at home that I am at school                      | 2         | 0.46 0.72  | 3         | 0.35 0.66  |
| Being able to take care of myself is a primary concern for me        | 1         | 0.14 0.69  | 1         | 0.36 0.63  |
| I act the same way no matter who I am with                          | 3         | 0.29 0.86  | 2         | 0.32 0.65  |
| I feel comfortable using someone's first name soon after I meet them, even when they are much older than I am | 4         | 0.31 0.71  | 2         | 0.33 0.71  |
| I prefer to be direct and forthright when dealing with people I've just met | 2         | 0.33 0.61  | 2         | 0.39 0.70  |
| I enjoy being unique and different from others in many respects      | 1         | 0.49 0.759 | 1         | 0.49 0.60  |
| I value being in good health above everything                         | 1         | 0.35 0.60  | 1         | 0.23 0.58  |

Note: n_{Pre-Study} = 143, n_{Main Study} = 329.

Abbreviation: AVE, average variance extracted; EFA, exploratory factor analysis; factor #, factor number; ITTC, item-to-total correlation.
Measurement model

To test the reliability and validity of the SCS, we followed the same steps as in the pre-study. First, an EFA with the 24 SCS items (Singelis, 1994) yielded an extraction of three factors each for R-SC and I-SC (Table 2). As in the pre-study, we reduced the number of items stepwise, starting from the 24-item, two-factor solution. Then we conducted several additional EFAs with the remaining items, which resulted in four-item solutions for R-SC and I-SC, with satisfactory reliability and validity values (Table 3, Panel A). We ran multiple CFAs, and—in following a stepwise procedure—the test of competing SC models again affirmed that the eight-item scale provided the best-fitting measure (Null model: 24 items, two factors, \( \chi^2 = 813.78, df = 251 \); Model 3: eight items, two factors, \( \chi^2 = 42.06, df = 19 \).
\( \Delta \chi^2 = 232.00 \). The analysis of this eight-item, two-factor solution produced satisfactory fit, including \( \chi^2(19) = 42.06 \), RMSEA = 0.06, GFI = 0.97, and CFI = 0.96 (Table 3, Panel B). In summary, we establish that SC encompasses two correlated dimensions (r = .54, p < .001), R-SC and I-SC. We also find evidence of discriminant validity, according to the Fornell-Larcker criterion (Bagozzi et al., 1991), because their squared correlation (r = .29) is lower than their AVE values (R-SC = 0.42; I-SC = 0.34).

### 5.3 Hypotheses tests

In addition to R-SC and I-SC, the other study constructs show satisfactory reliability and validity (Table 4). The manipulation checks were successful. An independent samples t-test revealed a significant difference between the smiling and non-smiling conditions: participants agreed that the smiling endorser offered a more positive emotion display (\( M_{\text{non-smiling}} = 3.63, M_{\text{smiling}} = 6.47, t[327] = -20.04, p < .001 \)). Similarly, participants knew which post was created by a user, with a significant difference between UGC and CGC (\( M_{\text{UGC}} = 3.68, M_{\text{CGC}} = 3.06, t[327] = 3.21, p < .005 \)).

Table 5 contains the means, standard deviations, and correlations of the constructs. Analyses of covariance (ANCOVA) reveal the effects of endorsers’ emotion displays (smiling vs. non-smiling), the communication source (UGC vs. CGC), and R-SC (strong vs. weak) on social media success. We used a median split to categorize consumers’ R-SC as strong or weak (Lee et al., 2000). Although we acknowledge the debate regarding the use of median splits for continuous data, research also demonstrates that analyses based on median splits deliver robust results (Iacobucci et al., 2015). They do not increase Type I errors when the independent variables are uncorrelated (all our correlations are non-significant and below r = .20). Main effects can be interpreted correctly using AN(C)OVA instead of regression analysis, and the latter is necessary to analyze moderating effects with continuous variables (Brambor et al., 2006). The distribution within the groups is equivalent too.

Although the hypotheses tests called for a consideration of strong versus weak R-SC individuals, we test the robustness of the results without splitting R-SC into strong and weak, and, therefore, performed regression-based moderations using Process Model.
1 (Hayes, 2018) by integrating R-SC as a continuous variable. We did so for both moderations (ED $\times$ R-SC; Source $\times$ R-SC). Performing floodlight analysis and investigating Johnson–Neyman points (Spiller et al., 2013) using the R packages rockchalk (Johnson, 2019) and interactions (Long, 2019) show that the moderation effects are partially consistent. For H3a the interaction effect can be confirmed. Please refer to the Supporting Information for more details.

The data provide evidence of a significant main effect of R-SC on attitudes toward the post ($F(1, 321) = 6.47, p < .05, \eta^2 = 0.02$). Consumers with strong R-SC express more positive attitudes toward the post than those with weak R-SC ($M_{\text{strong}} = 4.12, M_{\text{weak}} = 3.63, p < .01$, effect size $r = .89$), and these values indicate a strong effect (Cohen, 1988), in support of H1a. However, we must reject H1b–H1d, due to non-significant effects (sharing behaviour $F(1, 321) = 2.21, p > .10, \eta^2 = 0.01$; purchase intention $F(1, 321) = 1.45, p > .10, \eta^2 = 0.01$).

In support of H2, the main effects of endorsers’ emotion displays are significant on attitudes toward the post ($F(1, 321) = 42.00, p < .001, \eta^2 = 0.12$), sharing behaviour ($F(1, 321) = 8.21, p < .01, \eta^2 = 0.03$), purchase intention ($F(1, 321) = 6.41, p < .05, \eta^2 = 0.02$), and WOM ($F(1, 321) = 46.93, p < .01, \eta^2 = 0.02$). The $\eta^2$-values indicate that endorsers’ emotion displays have strong effects on consumers’ attitudes toward the post, whereas the other effects appear small (Cohen, 1988). They are all in the expected direction, such that participants in the smiling condition express more positive attitudes toward

Panel A: Endorsers’ Emotion Display

![Panel A: Endorsers’ Emotion Display](image)

Note: Framing scores of attitudes toward the post, sharing behaviour, purchase intention and WOM are shown for smiling and non-smiling endorsers (error bars show SEs).

Panel B: R-SC

![Panel B: R-SC](image)

Note: Framing scores of attitudes toward the post, sharing behaviour, purchase intention and WOM are shown for high and low R-SC (error bars show SEs).

Panel C: Communication Source

![Panel C: Communication Source](image)

Note: Framing scores of attitudes toward the post and sharing behaviour are shown for UGC and CGC (error bars show SEs).

FIGURE 2 Mean comparison by experimental conditions (main effects)
the post than their counterparts in the non-smiling condition ($M_{\text{smiling}} = 4.41, M_{\text{non-smiling}} = 3.33, p < .001, \text{effect size } r = .97$), as well as heightened sharing behaviour ($M_{\text{smiling}} = 2.91, M_{\text{non-smiling}} = 2.46, p < .01, \text{effect size } r = .88$), purchase intention ($M_{\text{smiling}} = 3.37, M_{\text{non-smiling}} = 3.02, p < .05, \text{effect size } r = .83$), and WOM ($M_{\text{smiling}} = 3.32, M_{\text{non-smiling}} = 2.96, p < .05, \text{effect size } r = .83$). The effect sizes reveal strong effects (Cohen, 1988). In Figure 2 (Panel A and B) provides overviews of the mean comparisons for the main effects of R-SC and endorsers’ emotion displays on the dependent variables.

The interaction effect of R-SC and endorsers’ emotion displays on attitudes toward the post is significant ($F(1, 321) = 8.10, p < .01, \eta^2 = 0.03$), in support of H3a. In multiple comparisons using contrast effect analyses, we find that consumers with strong R-SC, looking at a post with a smiling endorser ($M = 4.90$), express more positive attitudes than do consumers with either weak R-SC looking at a post with a smiling endorser ($M_{\text{smiling, weakR-SC}} = 3.93; \text{mean difference} = 0.97, SE = 0.25, p < .001$) or strong R-SC looking at a non-smiling endorser ($M_{\text{non-smiling, strongR-SC}} = 3.30; \text{mean difference} = 1.60, SE = 0.26, p < .001$). Moreover, strong R-SC consumers looking at a smiling endorser significantly differ from weak R-SC consumers looking at a non-smiling endorser ($M_{\text{non-smiling, weakR-SC}} = 3.33; \text{mean difference} = 1.57, SE = 0.24$). In other comparisons, we find that consumers with a weak R-SC exposed to a smiling, versus non-smiling, endorser have more positive attitudes toward the post ($M = 3.93$) than consumers with strong R-SC (mean difference = 0.63, $SE = 0.24$) or weak R-SC (mean difference = 0.60, $SE = 0.25$; $M_{\text{non-smiling, strongR-SC}} = 3.30, M_{\text{non-smiling, weakR-SC}} = 3.33, p < .01$).

Due to the non-significant interaction effects, we reject H3b (sharing behaviour $F(1, 321) = 2.28, p > .10, \eta^2 = 0.01$). In support of H3c though, we find a marginally significant interaction effect of consumers’ R-SC and endorsers’ emotion displays on purchase intention ($F(1, 321) = 3.39, p < .10, \eta^2 = 0.01$). Strong R-SC consumers, looking at a smiling endorser, indicate a higher purchase intention ($M = 3.66$) compared with weak R-SC consumers looking at a smiling endorser.

| TABLE 6 | Main Study—ANCOVA results |
|---------------------------------|-------------------------|

| Dependent variable | $F$ (1, 321) | $p$ | $\eta^2$ |
|--------------------|-------------|----|---------|
| **Attitudes toward the post** | | | |
| Endorsers’ emotion display | 42.00 | *** | 0.12 |
| Communication source | 1.90 | n.s. | 0.01 |
| R-SC | 6.47 | * | 0.02 |
| R-SC $\times$ Endorsers’ emotion display | 78.07 | ** | 0.03 |
| R-SC $\times$ Communication source | 0.17 | n.s. | 0.00 |
| Age | 0.59 | n.s. | 0.00 |
| **Sharing behaviour** | | | |
| Endorsers’ emotion display | 7.36 | ** | 0.02 |
| Communication source | 6.02 | * | 0.02 |
| R-SC | 1.39 | n.s. | 0.01 |
| R-SC $\times$ Endorsers’ emotion display | 2.28 | n.s. | 0.01 |
| R-SC $\times$ Communication source | 0.01 | n.s. | 0.01 |
| Age | 0.00 | n.s. | 0.00 |
| **Purchase intention** | | | |
| Endorsers’ emotion display | 6.41 | * | 0.02 |
| Communication source | / | / | 0.00 |
| R-SC | 2.21 | n.s. | 0.01 |
| R-SC $\times$ Endorsers’ emotion display | 3.39 | † | 0.01 |
| R-SC $\times$ Communication source | 0.32 | n.s. | 0.01 |
| Age | 0.20 | n.s. | 0.00 |
| **WOM** | | | |
| Endorsers’ emotion display | 6.93 | ** | 0.02 |
| Communication source | / | / | 0.00 |
| R-SC | 1.45 | n.s. | 0.01 |
| R-SC $\times$ Endorsers’ emotion display | 4.22 | * | 0.01 |
| R-SC $\times$ Communication source | 0.22 | n.s. | 0.01 |
| Age | 0.33 | n.s. | 0.00 |

Abbreviations: n.s., not significant; /, not calculated; $\eta^2$, partial eta squared.

***$p < .001$. **$p < .01$. *$p < .05$. †$p < .10$. 
(M = 3.09; mean difference = 0.57, SE = 0.24, p < .05), strong R-SC consumers looking at a non-smiling endorser (M = 3.02; mean difference = 0.64, SE = 0.25, p < .05), or weak R-SC consumers looking at a non-smiling endorser (M = 3.00; mean difference = 0.65, SE = 0.23, p < .01).

Similarly, the significant interaction effect on WOM (F(1, 321) = 4.22, p < .05, η² = 0.01) affirms H3d. For strong R-SC consumers, a smiling endorser increases their WOM (M = 3.61) relative to all other conditions (Msmiling_weakR-SC = 3.04, Mnon-smiling_strongR-SC = 2.93, Mnon-smiling_weakR-SC = 2.97, p < .01). The mean differences for the three comparisons are 0.57 (SE = 0.23), 0.68 (SE = 0.25), and 0.64 (SE = 0.22), respectively. Table 6 summarizes the results of the ANCOVAs; Figure 3 (Panel A) depicts the mean comparisons for the interaction effects.

The communication source only significantly affects consumers’ sharing behaviour (F(1, 321) = 5.16, p < .05, η² = 0.02), as we predicted in H4b. A post by a user results in more sharing behaviour than a post by a company (MUGC = 2.89, MCGC = 2.48, p < .05), with a strong effect (r = .86). But in contrast with the other predictions, the effect of the communication source on attitudes toward the post (F(1, 321) = 1.90, p > .10, η² = 0.01; cf. H4a), purchase intention (F(1, 321) = 0.03, p > .10, η² = 0.00; cf. H4c), and WOM (F(1, 321) = 0.14, p > .10, η² = 0.00; cf. H4d) are not significant. Figure 2 (Panel C) contains these mean comparisons.

Panel A: Endorsers’ Emotion Display × R-SC

Panel B: Source × R-SC

Note: Framing scores of attitudes toward the post, sharing behaviour, purchase intention and WOM are shown for smiling and non-smiling endorsers and for high and low R-SC (error bars show SEs).

FIGURE 3 Mean comparison by experimental conditions (interaction effects)
Finally, we must reject H5, because we find non-significant interaction effects of R-SC and communication source on consumers’ attitudes toward the post (F(1, 321) = 0.17, $\eta^2 = 0.00$), sharing behaviour (F(1, 321) = 0.14, $\eta^2 = 0.00$), purchase intention (F(1, 321) = 0.32, $\eta^2 = 0.00$), and WOM (F(1, 321) = 0.22, $\eta^2 = 0.00$; all $p > .10$). Table 6 contains the results of the ANCOVAs, and Figure 3 (Panel B) reveals the mean comparisons.

6 | DISCUSSION

6.1 | Summary

The overarching objective of this research was to investigate consumers’ SC as a driver of social media success and the role that it plays in connection with other drivers of social media success. We started by seeking a better understanding of the SC construct and testing the 24-item SCS (Singelis, 1994). The results of multiple, iterative analyses reveal that of these 24 items, eight effectively represent the SC construct, including four that pertain to R-SC and four representing I-SC. Following extensive, stepwise testing procedures, this factor structure emerged from the pre-study and was validated by the main study. Model comparisons also confirmed the superiority of this factor structure over other solutions. Thus, this research establishes that consumers’ SC can be captured, in a valid and reliable way, using eight of Singelis’s (1994) 24 items.

Leveraging this scale, we investigated R-SC and its main and indirect effects on social media success, measured as both communication and product-related behaviours. Consumers’ R-SC strongly influences their attitudes toward the post, but does not impact their sharing behaviour, purchase intention and WOM which might be explained by the fact that these metrics require a strong behavioural or conative component which is not affected by R-SC. Independent of consumers’ R-SC, a smiling endorser results in more positive attitudes too, as well as greater sharing behaviour, purchase intention, and WOM. When we combine these findings, we further establish that consumers with strong R-SC looking at a post with a smiling endorser express the most positive attitudes toward the post, purchase intention, and WOM; however, consumers’ sharing behaviour is not affected. One reason for this might be that consumers with strong R-SC highly value group harmony and, thus, strongly rely on in-group members’ opinions. With the smile of the endorser being the only decisive factor, it is unclear what other users would think of the post and, consequently, there is no effect on sharing behaviour with strong R-SC, as they might fear to loose social coherence when sharing content that is not appreciated by people from their reference group. Finally, if the post is created by a user, it stimulates sharing behaviour, independent of consumers’ SC. This result shows that for sharing behaviour, as an online success metric, the communication source is most relevant. Other success metrics, such as purchase intention of the product proposed in the post or WOM, are merely driven by endorsers’ emotion displays, which is in line with H3.

6.2 | Theoretical implications

This research contributes to consumer behaviour literature, by integrating SC specifically in the context of social media communication. Due to unclear conceptualizations and operationalizations of consumers’ SC, no clear answer exists regarding whether I-SC and R-SC are two separate constructs (Singelis, 1994) or points on a bipolar scale (Triandis et al., 1986). Through our explicit consideration of the SC construct and its measurement, we show that an eight-item scale based on Singelis’s (1994) 24-item SCS can best represent I-SC and R-SC, with four items each. This reduction of the short SCS parallels the findings of previous literature that recommends shorter versions to increase parsimony and improve the SCS’s psychometric characteristics (D’Amico & Scrima, 2016). The separate consideration of R-SC and I-SC also corresponds with some prior evidence (Chen & Marcus, 2012; Fang, 2017; Singelis, 1994; Singelis et al., 1999). This research thus contributes theoretically, by advancing both the conceptualization and operationalization of SC. By also considering the relationship of SC with other variables, we explicate how R-SC drives consumers’ attitudes toward the post, offering insights to explain prior findings of a significant effect of SC on behavioural intentions (Lee et al., 2012).

Independent of consumers’ SC, we also contribute results related to the role of endorsers’ emotion displays; a smiling endorser is generally superior to a non-smiling endorser with regard to stimulating positive responses (Kemp et al., 2012). We apply Ekman’s (1992) discrete emotion theory to a social media context and thereby confirm that an emotional facial expression, such as smiling, leads to better results than a non-emotional expression.

The revealed interaction effects of R-SC with other success drivers represent another notable contribution of this research, such that we clarify not only the effectiveness of R-SC for social media success (Lee et al., 2012; Mandel, 2003) but also the joint effects of consumers’ SC and endorsers’ emotion displays, which had not been examined previously. Our results indicate that this interaction effect is decisive for attitudes toward the post, WOM, and purchase intention—findings that extend beyond prior SC literature that tends to focus on how the perceptions and processing of emotions depend on individual SC (Hess et al., 2016; Ma-Kellams & Blascovich, 2012). That is, our results affirm that people with strong R-SC rely on emotional information, such as smiling, and value it more than do people with weak R-SC. Then we go a step further and provide deeper insights into the link between emotions and consumers’ SC specifically in a social media context (Hess et al., 2016; Ma-Kellams & Blascovich, 2012).

Regarding the on-going debate about the superiority of UGC or CGC (Hautz et al., 2014), our findings indicate that UGC is superior for stimulating sharing behaviour, but it does not affect attitudes toward the post. Perhaps consumers feel obliged to share content created by other, similarly non-commercial users, even if their overall attitudes toward the specific post do not change according to the communication source. Nor do we find a significant interaction with consumers’ SC; UGC seemingly is beneficial,
regardless of consumers’ SC, because such posts appear more credible and trustworthy than CGC, independent of personality factors, such as SC (Hautz et al., 2014). In this sense, in addition to informing the UGC versus CGC debate, our findings contribute to source credibility theory (Hovland et al., 1953), which proposes that sources appear more credible if they are perceived to possess expertise and trustworthiness. In our study, users are regarded as more credible.

6.3 Managerial implications

Marketers seeking to communicate about their products through social media should consider their endorsers’ emotion displays, communication sources, and consumers’ SC to predict the outcomes, in terms of communication and product-related behaviours. First, consumers with strong R-SC express more positive attitudes toward the post and a higher purchase intention. Segmenting and addressing consumer groups according to their SC might facilitate social media success, because they can target strong R-SC consumers. To identify them, marketers can leverage users’ social media activities. People with strong R-SC spend substantial time on social media platforms and engage actively in two key activities, self-disclosure and responsiveness (Chang, 2015). In a technical sense, the segmentation also might be achieved by relying on consumers’ online (purchase) behaviour and preferences, usually saved with cookies, then adapting the social media targeting strategy. That is, companies should develop targeting strategies to identify strong versus weak R-SC consumers and appeal to them with different stimuli and communication strategies.

Second, independent of SC, endorsers’ emotion displays can increase social media success. Overall, marketers should incorporate friendly, smiling endorsers into their social media posts to stimulate consumers’ positive reactions. Most generally, they should avoid featuring non-smiling endorsers and should search for endorsers who can show a nice smile. Non-verbal communication training might enhance endorsers’ ability to display a nice and authentic smile on demand. The superiority of smiling endorsers is especially important for communications that target strong R-SC consumers, due to their significant interaction effects. These consumers express the most positive attitudes toward the post, purchase intention, and WOM. Therefore, marketers should work to show posts with smiling endorsers to consumers with strong R-SC, to reinforce the positive effect of smiling endorsers.

Third, social media success may require the “right” communication source. Marketers should reinforce and establish strong, cooperative relationships with reliable users who will create the posts (which must not appear like CGC that simply are posted by a user) to foster consumers’ sharing behaviour.

6.4 Limitations and further research

Although our study provides several interesting findings, it also contains some limitations that indicate avenues for further research. We propose a viable operationalization of the SC construct, but additional validation studies are needed to confirm the superiority and robustness of the parsimonious eight-item SC scale. In particular, it could be beneficial to replicate this study with a sample from another cultural background, to examine potential differences in the results that reflect cultural influences or else confirm that the eight-item scale holds across multiple cultures. Another robustness test might involve replications with different product or social media contexts; our results are specific to the chosen product category and social media platform (i.e., Facebook). For this study, we focused on endorsers’ emotion displays and the communication source as key features of social media posts, though other important components also might be significant and relevant. To address this limitation, continued studies might investigate the role of other drivers of sharing behaviour and purchase intention, such as the type of claim included in the post.

CONFLICT OF INTEREST

There is no conflict of interest.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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ENDNOTE

1 To provide more detailed insights into the role of R-SC on consumer behaviour, we followed the suggestion of one of the reviewers and integrated R-SC as a continuous variable into regression-based moderations using Process (Model 1) by Hayes (2018) instead of splitting R-SC into strong versus weak. The results show partial consistence of the moderation effects of R-SC. Please refer to the Supporting Information for more details.

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SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of this article.

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