

# **Factors affecting consumer engagement on online social networks: self-congruity, brand attachment, and self-extension tendency**

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## **Abstract**

**Purpose** – This paper examines a chain of relationships running from self-congruity with a brand—that can stem from the actual, ideal or social self—to brand attachment, and from there to consumer engagement on social networking sites, specifically liking, sharing, and commenting. It further advances self-extension tendency as a moderator affecting the self-congruity → brand attachment link.

**Design/methodology/approach** – Two studies were conducted to test four hypotheses. Study one (n = 282) engaged a self-administered survey with students at a large Australian university. The second study (n = 342) was conducted amongst the members of an Australian online panel, and thus enhances generalizability.

**Findings** – Activated self-congruity orientations are brand-specific. Both studies reveal that two of the three self-congruity orientations affect brand attachment, which in turn influences consumers' proclivity to like, share, and comment on Facebook. Moreover, the self-congruity → brand attachment relationship is moderated by self-extension tendency. When self-extension tendency is high, it strengthens the relationship between a self-congruity orientation and brand attachment.

**Originality/value** – These findings extend existing theory in three ways: they show 1) social self-congruity affects brand attachment in online contexts, 2) brand attachment is a mediating variable affecting pro-brand social networking behaviours, and 3) self-extension tendency moderates the self-congruity → brand attachment relationship. Social networking sites are widely acknowledged as a key marketing channel affecting both pre- and post-purchase behaviours; hence, these insights have theoretical as well as practical relevance.

**Keywords** Self-congruity, brand attachment, self-extension tendency, consumer engagement, social networking sites (SNS), liking, sharing, commenting

**Paper type** Research paper

## **Introduction**

Social networking sites (SNS) have empowered consumers to communicate their self-image through brand-related behaviours (Hollenbeck and Kaikati, 2012). The process of doing so influences the decisions of other potential consumers (Chahine and Malhotra, 2018). Consequently, knowing how to stimulate such behaviours has practical relevance. Past research shows that marketers encourage developing customer–brand relationships by incorporating the brand into a consumer’s self-concept (Belk, 1988; Elbedweihy, Jayawardhena, Elsharnouby, and Elsharnouby, 2016). A person’s self-concept is multi-dimensional and includes the actual self (a reflection of a person’s real personality), the ideal self (an idealised version of a person, i.e., who they would like to be) and the social self (how a person would like others to view him/her) (Liu, Li, Mizerski, and Soh, 2012; Sirgy, Grewal, and Mangleburg, 2000). When a consumer perceives a match between a brand’s image and a dimension of her/his self-concept, referred to as self-congruity (Sirgy, 1985), s/he feels a deep connection between the brand and her/his self-concept (Liu et al., 2012; Roy and Rabbane, 2015). Social networking sites (SNS) allow simultaneous activation of multiple self-congruity orientations, that is, actual, ideal and social self-congruity (Belk, 2013).

Past research explores different combinations of self-congruity orientations to study their influence on consumer behaviours (e.g., loyalty, compulsive buying and willingness to pay), (Japutra, Ekin, Simkin, and Nguyen, 2018; Malär, Krohmer, Hoyer and Nyffenegger, 2011; Tan, Salo, Juntunen, and Kumar, 2019) although most studies are in offline contexts. In a qualitative online behaviour-related study, Hollenbeck and Kaikati (2012) found that both actual and ideal self-congruity influenced whether brands were incorporated into a person’s online profile, but they did not investigate if brands were used to reflect the social self (see also Back et al., 2010; Malär et al., 2011; Japutra, Ekin, and Simkin, 2017). All three self-congruity orientations are rarely studied

together, with social self-congruity particularly receiving limited attention in the marketing literature (Gonzalez-Jimenez, Fastoso, and Fukukawa, 2019). Further, social self-congruity has not been explored on SNS, despite Belk (2013) arguing that SNS can trigger multiple self-concepts. Findings from a meta-analysis show that public self-motives (as opposed to private self-motives) predispose individuals towards brands that are consistent with their actual or social self (Aguirre-Rodriguez, Bosnjak, and Sirgy, 2012). The current research presents a parsimonious model that studies the influence of all three dimensions of self-congruity on consumers' online behaviours, specifically, their actions of liking, sharing and/or commenting on the brand's Facebook page.

Brand attachment, that is, the strength of the bond connecting a brand with the self, may play an intermediate step between possible self-congruity orientation and pro-brand behaviour in SNS. The intermediate role of brand attachment in the context of social media engagement is important given the current research gaps. For example, Gonzalez-Jimenez et al. (2019) study the effects of self-congruity on offline brand attitudes without incorporating any mediating variable. Similarly, Hollenbeck and Kaikati (2012) bypass the role of mediators to provide qualitative support for a link between actual/ideal self-congruity orientation and online behaviours. Marketing scholars clearly designate brand attachment as more important than alternative psychological measures, such as attitude towards the brand (Park et al., 2010; Zhou, Zhang, Su, and Zhou, 2012). Incorporating brand attachment as a mediating mechanism helps to illuminate the extent to which self-congruity orientation affects brand attachment which, in turn, is posited to affect pro-brand behaviours (i.e., liking, sharing and commenting) on social media.

Finally, the current research considers the self-extension tendency, defined as consumers' overarching inclination to use brands to 'extend themselves', as a moderator. A consumer's tendency to extend or define her/himself through her/his possessions was acknowledged three decades ago (Belk, 1988). Researchers have noted that consumers vary in the extent of their self-extension tendency, thus recommending that future work explore the ramifications of this construct (Sprott, Czellar, and Spangenberg, 2009; Ferraro, Escalas, and Bettman, 2011). The current

research examines the moderating effect of the self-extension tendency on the self-congruity → brand attachment link. In summary, the current research offers important extensions to the extant literature by exploring the roles played by all three self-congruity orientations on brand attachment and how brand attachment influences social media behaviours and, finally, by studying the self-extension tendency as a moderator. The SNS examined in the current study is Facebook with which over 2.4 billion people engage at varying levels of self-presentation (Belk, 2013).

### **Theoretical framework**

The theoretical framework tested within this research effort is illustrated in Figure 1. In this section the framework is unfolded from left to right, starting with self-concept dimensions (actual, ideal, and social selves) that could affect one's degree of congruence with a brand; these potential self-congruity orientations are then linked to brand attachment, and from there to consumers' engagement on SNS, specifically liking, sharing, and commenting. A moderating variable, self-extension tendency, is then introduced. Where this research fits relative to current work is highlighted in Table I.

< Insert Figure 1 here >

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#### *Self-concept dimensions that can drive self-congruity with brands*

Self-concept is defined as 'the totality of an individual's thoughts and feelings having reference to himself as an object' (Sirgy, 1985). Various perspectives have been advanced, but a commonly accepted view is that it includes the actual, ideal, and social selves (Liu et al., 2012; Sirgy, 1985; Sirgy et al., 2000). The actual self refers to how a consumer sees himself or herself: what they are now. One's actual self may not be consistent with their ideal self: what they would like to become or aspire to be. A third self-concept is the social self. Social self-concept, or 'the looking glass self', refers to how the consumer believes significant others see him/her. One might believe that their friends' view of them is quite different than, say, their parents', and indeed, that might very well be

the case. A person's self-concept is fluid and multiple self-concepts can be activated at once (Hollenbeck and Kaikati, 2012; Malär et al., 2011). For example, one may wear athletic clothes from Nike to be perceived as sporty (social self); that individual could also be engaged in rigorous training activities to target sporting accomplishments (ideal self).

The research on self-congruity often investigates different combinations of actual, ideal, and social dimensions, but rarely all three together. A recent study by Gonzalez-Jimenez, Fastoso, and Fukukawa (2019) that examines the effect of all three dimensions of self-congruity on brand attitudes in a cross-cultural context finds support for social self-congruity in an Eastern culture (India) but not in a Western culture (USA). They acknowledge that the latter finding is a counter to existing theory (Sirgy, 1982; Sirgy, Grewal, and Mangleburg, 2000), and note the paucity of work investigating social self-congruity in marketing journals. Other recent works (Back et al., 2010; Hollenbeck and Kaikati, 2012; Japutra et al., 2018; Tan et al., 2019) focus on the actual and/or ideal dimensions of self-congruity and ignore social self-congruity. The context of our work, i.e. Facebook, makes social self-congruity a likely predictor of online behaviour, in addition to the ideal and/or actual dimensions. For example, it is easy to imagine someone enthusing about their Harley Davidson riding experiences to select Facebook friends so that they are perceived as an intrepid motorcyclist, when in reality their motorcycle rarely leaves the garage.

Consumer culture theory advances a perspective of how individuals deal with conflicts between these personas to achieve a balance, which we leave to other scholars to elucidate (see, for example, Arnould and Thompson, 2005). Relevant here is that people can and do embrace different personas, tailoring their image to the audience with whom they are engaged (Aaker, 1999; Belk, 2013). This occurs both offline and online. The emergence of SNS has increased the opportunity to present multiple selves (Belk, 2013). Consider Facebook. The median number of friends one has on Facebook is estimated at 200, many of these associations being loosely connected relationships (for example, one's badminton team or a high school class reunion group). This environment, therefore, creates a wide array of potential audiences to whom one can present an image of themselves. With

respect to one's user profile, Back et al. (2010) concluded that most users present their actual self, which is understandable, given that close friends see their profile and misrepresentation could incur social sanction (Toma and Hancock, 2013). However, evidence suggests that this may not be the case when indulging in pro-brand or pro-store behaviours. With respect to pro-brand behaviours, Hollenbeck and Kaikati (2012) found the portrayal of the ideal self more prominent but certainly not to the exclusion of the actual self. What scholars agree on is that one's self-concept is fluid. Belk (2013, p. 490) comments, '...with the proliferation of multiple online personas, the core self idea crumbles ... In the digital world, the self is now extended into avatars, broadly construed, with which we identify strongly', and later, "[s]ome conscious management of our online presentations of self is increasingly detected ...'

Regardless of which self-concept an individual portrays to an audience, marketers refer to the match of a brand's image/personality to one's self-concept as self-congruity (Aaker, 1999; Sirgy, 1985, 2018). Brands have an image or personality that can serve as a vehicle for self-expression or self-expansion (Aaker, 1999; Belk, 1988; Malär et al., 2011; Thomson et al., 2005). Thus, self-congruity is achieved by identifying with a brand that has an image/personality similar to one's actual, ideal or social self. One might, therefore, identify with Nike shoes because they see a fit between their self-concept and Nike's personality, which they may consider competent and sophisticated (Aaker, 1996). If one considers themselves a competent athlete and a sophisticated person, the congruence will likely be driven by associations with their actual self. If they desire to be, but do not consider themselves, competent/sophisticated, they may use Nike products to reflect their ideal self; however, if they believe others see them as competent/sophisticated, the social self-concept will drive congruity, which may explain some people's motive to acquire popular branded products. A cogent example of congruity between the social self and premium brands is provided by a participant in Hollenbeck and Kaikati's (2012, p. 402) study: 'I really want people to think I am better than I really am at golf, so I intentionally pick golf brands that are reputable and expensive'. In this instance, the individual is admitting that they pay more for equipment than their 'actual self'

merits.

### *Brand attachment*

The basic tenet of attachment theory is that individuals naturally seek proximity to others to secure protection from physical and psychological threats as well as to promote the regulation of affect (Bowlby, 1979). Although attachment theory is generally used to explain how humans develop attachments with significant others, for example, one's mother, to cater to their needs (comfort, warmth, security), individuals also get attached to brands to fulfil their needs (Elbedweihy et al., 2016; Malär et al., 2011; Thomson et al., 2005). Belk (1988, p. 139) advances a strong view: 'We cannot hope to understand consumer behaviour without first gaining some understanding of the meanings that consumers attach to possessions. A key to understanding what possessions mean is recognizing that, knowingly or unknowingly, intentionally or unintentionally, we regard our possessions as parts of ourselves'. Marketing scholars define brand attachment as the strength of the bond connecting the brand with the self and have acknowledged its importance in driving brand equity (Park et al., 2010; Zhou et al., 2012). Strong attachments can develop from real or imagined personal experiences with the brand and may lead to the creation of autobiographical memories, personalized meaning, and trust. Because such thoughts are self-relevant, the links that connect the brand to the self are inherently affective in nature (Belk, 1988; Park et al., 2010).

### *Self-congruity as an antecedent to brand attachment*

Self-congruity with brands is a manifestation of cognitive consistency theory, i.e. consumers aim for consistency between their beliefs and their behaviours (Festinger, 1957). Consumers hold a set of beliefs about themselves (their self-concept) and act in accordance with those beliefs—in this case, identify and form attachments with brands consistent with their self-concept orientation(s). Incorporating brands into one's self-concept has received both theoretical (Belk, 1988) and empirical support. Consumers have been shown to choose brands that are congruent with their self-

concept (Liu et al., 2012; Roy and Rabbane, 2015). A match between a self-concept dimension and a brand is referred to as self-congruity, which affects both pre- and post-purchase behaviours (Sirgy, 1985, 2018).

Studies linking self-congruity to pro-brand behaviours that share similarities with this study have focused on brand congruity with the actual and ideal selves but have not considered the social self. For example, Hollenbeck and Kaikati (2012) found that, in the context of pro-brand SNS behaviours, consumers can choose one or invoke both the actual and ideal selves. They comment that ‘most people edit their presented selves in some motivated way’ (Hollenbeck and Kaikati, 2012, p. 403). Based on qualitative insights, they unearthed instances when these two self-congruity orientations were in conflict. In their study, if congruity orientations were in conflict, ideal self-congruity tended to drive pro-brand behaviours, or linkages with a brand did not form. When there is internal disharmony, not linking with a brand is a means to avoid conflict. Thus, like Malär et al. (2011), when relationships between actual and/or ideal self-congruity and resultant behaviours were realized, the effects were positive. What Hollenbeck and Kaikati (2012) do not consider is treating brand attachment as a separate, mediating construct. They also do not consider social self-congruity.

Others have found empirical support for social self-congruity leading to retail store patronage, perceived value, and satisfaction (He and Mukherjee, 2010; Sirgy et al., 2000). In online contexts, it is easy to envision an introverted individual expressing his/her attachment to a brand within a brand community with expectations that the members will perceive him/her as an extrovert open to new experiences. Such an expressed attachment within the community builds social ties and can increase one’s social capital (Ellison, Steinfield, and Lampe, 2007). Given that the theoretical framework proposed in Figure 1 culminates with investigating online pro-brand consumer engagement behaviours, it seems imprudent to ignore the potential role of social self-congruity, because the social self can be more pronounced in the context of SNS where public self-motives are likely to be evident, i.e. behaviours to enhance social acknowledgement or acceptance (Aguirre-Rodriguez, Bosnjak, and Sirgy, 2012; Ellison et al., 2007). It is, therefore, advanced that any of the

three self-congruity orientations with a brand (actual, ideal or social self) can positively influence attachment to the focal brand. Thus:

*H1:* (a) Actual (b) ideal, and/or (c) social self-congruity will have a positive effect on brand attachment.

#### *Effects of brand attachment on pro-brand SNS behaviours*

Brand-related SNS engagement behaviours, such as posting a comment on a company's Facebook page, are powerful indicators of brand popularity and have been shown to affect purchases and loyalty (Hennig-Thurau, Wiertz, and Feldhaus, 2015; Kumar et al., 2016; Swani, Milne, Brown, Assaf, and Donthu, 2017). The social media communication model advanced by Swani and Milne (2017) recognizes that there are many reasons that motivate consumers to engage in WOM (Lovett, Peres, and Shachar, 2013), and that marketers can leverage these psychological motivations to stimulate pro-brand behaviours. We propose that triggering the self-concept that leads to brand attachment will positively affect consumers' proclivity to engage in Facebook liking, sharing, and commenting.

When a consumer 'likes' a brand, the number of likes increases on the firm's Facebook page, which has been shown to increase sales (Lee, Lee, and Oh, 2015). Consumers can also 'share' their affinity for the brand within their network (Belk, 2014; Kabadayi and Price, 2014), including photos or narratives that incorporate the brand. Consumers may also 'comment' on a brand's Facebook page, which is visible to people in their network and can be read by others who visit that page (Kabadayi and Price, 2014). All of these appear on the sender's timeline to a select group of friends. Liking, sharing, and commenting are measures of consumer engagement (Gummerus, Liljander, Weman, and Pihlstrom, 2012; van Doorn et al., 2010). Connecting with a brand on SNS through behaviours such as these can help consumers to feel that they are a part of popular society (Zhou et al., 2012).

However, undertaking these behaviours requires effort. Attachment theory predicts that consumers are motivated to expend their own resources, such as time and effort, to maintain

proximity to others, in this case the brand. When a consumer is attached to the brand, s/he is more likely to support it through public display and/or advocacy (Elbedweihiy et al., 2016; Park et al., 2010; Thomson et al., 2005; Zhou et al., 2012). Studies in offline contexts have shown that brand attachment has beneficial consumer-related outcomes, like higher purchase intention, willingness to pay premium prices, and intention to recommend the brand to others (Jiménez and Voss, 2014; Thomson et al., 2005). However, Japutra et al. (2017, 2018) revealed a dark side of brand attachment. In their UK-based study (n = 427), they found that brand attachment was significantly related to impulsive and obsessive-compulsive buying. Although no specific brand was the focus of their study (respondents were to think of their favourite brand), an explanation was that firms exaggerating claims (e.g. about weight loss) may encourage such behaviours. Nevertheless, brand attachment is now regarded as a better predictor of key marketing metrics (share of wallet, sales, loyalty) than brand attitude strength (Park et al., 2010). Applying the findings from offline contexts to SNS and acknowledging that expenditure of discretionary resources (time and effort) can include liking, sharing, and commenting, it is hypothesized that:

*H2. Brand attachment has a positive effect on liking, sharing, and commenting on SNS.*

#### *Mediating role of brand attachment*

H1 proposes that one or more of the three self-congruity orientations can positively influence attachment to the brand, and H2 suggests that brand attachment drives pro-brand SNS behaviours. To complete the proposed relationship chain, it is hypothesized that brand attachment mediates the relationship (refer to Figure 1). Past research that focused on undesirable shopping behaviours (Japutra et al., 2017; 2018) has found support for brand attachment mediating the relationship between actual and ideal self-congruency, and compulsive buying. Neither study considers social self-congruity or pro-brand SNS behaviours affecting others' actions, two foci of the current study.

Consumers are motivated to affirm and enhance their sense of self (Swann, Stein-Seroussi, and Giesler, 1992); attaching to a brand is consistent with this motive. People showcase themselves

by engaging with prominent brands (Back et al., 2010; Hollenbeck and Kaikati, 2012; Saboo, Kumar, and Ramani, 2016). On SNS, consumers willingly share opinions and feelings with others (Belk, 2013; Kolek and Saunders, 2008). Brand attachment gives consumers a reason to interact and engage with the brand on SNS through pro-brand advocacy, in this case, liking, sharing, and/or commenting. Thus:

*H3. Brand attachment mediates the effect of actual, ideal, and social self-congruity on liking, sharing, and commenting on SNS.*

#### *Moderating role of self-extension tendency*

Thus far, it has been hypothesized that any of the three self-congruity orientations can lead to brand attachment, which in turn influences SNS behaviours. However, boundary conditions affect these relationships. In an offline context, Malär et al. (2011) showed that the effect of ideal and actual self-congruity on brand attachment is moderated by product involvement, self-esteem, and public self-consciousness. Their findings were nuanced—higher levels of the moderators strengthened the link between actual self-congruence and brand attachment but weakened the link between ideal self-congruence and brand attachment. Important though these insights are, both Malär et al. (2011) and Hollenbeck and Kaikati (2012) encourage examining additional moderators, with the latter suggesting self-extension tendency.

Three decades ago, it was acknowledged that possessions can become an extension of the individual: ‘When an object becomes a possession, what were once self and not-self are synthesized, and having and being merge. People seek, express, confirm, and ascertain a sense of being through what they have’ (Belk, 1988, p. 146). The corollary is that individuals can experience profound negative reactions when possessions are taken away (Ferraro et al., 2010). Research has since shown that people vary in the extent to which they express themselves through brands, referred to as self-extension tendency (Spratt et al., 2009). Some individuals are prone to extend themselves through their possessions, a high self-extension tendency: brands become part of the

definition of who they are. Some readers may proudly display their university diplomas or have grieved the loss of stolen items; others are less predisposed to use brands to define themselves, a low self-extension tendency (Ferraro et al., 2011). What is unclear is how self-extension tendency moderates the self-congruity → brand attachment relationship; but intuition would suggest that if one is generally disposed towards ‘extending themselves through brands’ (a high self-extension tendency), brand attachment would be more likely to develop.

Consider the case of actual self-congruency. Actual self-congruency with a brand presents a means to bolster one’s self-worth and is a pathway for self-affirmation. Self-affirmation theory posits that people cater to the fundamental need of seeing themselves as worthy and valuable; evidence can reinforce their self-worth (Toma and Hancock, 2013). Some individuals proudly display their sporting trophies—some received years ago—and still actively talk about the sporting event, while others have packed their trophies away and are less inclined to share their accomplishments. Thus, those with a high self-extension tendency (displaying their trophy) would be more likely to form brand attachment, in this case with the sport or team.

The moderating effect of self-extension on the ideal self-congruity → brand attachment link is less clear. Although Malär et al. (2011) and Hollenbeck and Kaikati (2012) reached different conclusions on which of the actual and ideal selves seemed to dominate, the two selves were generally in concert. If they were not, Hollenbeck and Kaikati (2012) concluded that it was unlikely a relationship would form with a brand. Koo et al. (2014) reached a stronger conclusion: if the ideal self and the often idealized information/visual cues portrayed on a website (for example, models to showcase clothes that do not reflect one’s ideal self) were not in agreement, there were negative reactions to the online store—the conflict ‘damages their self-esteem’ (p. 148). This, too, suggests brand attachment would not form. Assuming ideal self-congruity is realized and brand attachment forms (consistent with H1), how would self-extension moderate the relationship? Ideal self-congruity is a means to enhance one’s perception of self, to increase one’s self-worth. Echoing the argument above with respect to the actual self, it is guardedly advanced that if an individual uses

brands to extend himself/herself, i.e. a high self-extension tendency, this would amplify attachments with those chosen brands.

Findings show that people displaying a high self-extension tendency prefer more conspicuously branded products (Sprott et al., 2009), and that attachment to conspicuous, luxury or iconic brands can help consumers to reflect social ties with communities (Muniz and O’Guinn, 2001). Thus, similar to the effect of self-extension tendency on the actual and ideal selves, this suggests that a high self-extension tendency would strengthen the social self → brand attachment link. Based on the above, it is, therefore, hypothesized that:

*H4.* The relationship between actual, ideal, and social self-congruity and brand attachment will be strengthened for consumers with a high self-extension tendency.

In the next section, two studies are presented to test these hypotheses, both conducted in Australia. The first study uses a student sample, and the second a national online panel where participation was restricted to those aged between 25 and 45. Two iconic brands—*Nike* and *Ray Ban*—are examined.

## **Study 1**

### *Method*

Study 1 explores the influence of all three self-congruity orientations on brand attachment, and how brand attachment, in turn, affects liking, sharing, and commenting. The focal brand studied is Nike, and Facebook is the SNS. Nike is a global brand with high credibility amongst youths and sport enthusiasts, and is, therefore, relevant to the university student sample. It is also the 17<sup>th</sup> best global brand and has been nominated as the most-mentioned fashion brand on social media (Interbrand, 2018). Brands like Nike are often symbolic to self-identity and discussed in group contexts, such as on online forums (Kozinets, 2017). Facebook is appropriate for the current study as it is the most popular SNS (Cheung, Chiu, and Lee, 2011). Australian social media statistics<sup>1</sup> show that Facebook

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<sup>1</sup> <https://www.socialmedianews.com.au/social-media-statistics-australia-august-2018/>

is the most popular SNS with 15,000,000 monthly active users, followed by YouTube, Instagram, and Snapchat. A pre-test found that 31 of 33 students (94%) have a Facebook account and are active users, spending time on their accounts on a daily basis.

Data for the study was collected through a self-administered survey given to students at an Australian university. A total of 332 students were approached during their leisure time on campus, but 34 students chose not to participate in the study (university ethics requirements mandate that participation be voluntary); 298 complete questionnaires were received, out of which 16 were discarded due to incomplete answers. A final sample of 282 responses (54.6% female) was used for further analysis.

The survey instrument started with the following scenario: *'Imagine you are surfing your Facebook page one day. While surfing, you have noticed a newsfeed from Nike about its footwear on your Facebook wall and you are interested to learn more about different products of the company. You clicked the link and it takes you to the official Facebook page of Nike where you find different posts of footwear offered by the company with colorful visuals and short videos on product descriptions and upcoming events'*.<sup>2</sup> The scenario contained the Nike logo to help respondents to relate to the brand.

Following the scenario, subjects responded to a series of questions reflecting self-congruity (actual, ideal, and social selves), intended SNS behaviours (liking, sharing, and commenting), brand attachment, and self-extension tendency, followed by measures of brand familiarity and demographic questions. Given that self-congruence is a holistic, gestalt-like perception, self-congruity was measured using the direct method, which reflects the psychological experience of self-congruence directly and is considered more predictive of consumer behaviour than measures such as mathematical discrepancy indexes (Sirgy et al., 1997). Following Malär et al. (2011), respondents were encouraged to take their time to think about and elaborate on the given brand's

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<sup>2</sup> 'Facebook wall' was replaced with 'Facebook home page' in Study 2.

personality, then think about their actual, ideal, and social selves, and then indicate the extent of self-congruence with the given brand. On the questionnaire, respondents indicated their perception of the degree of match or mismatch between how they see the brand's personality and how they see themselves.

### *Measures*

Actual and ideal self-congruity measures were adapted from Malär et al. (2011) and Sirgy et al. (1997). Social self-congruity was measured with items adapted from Sirgy et al. (1997) and Carroll and Ahuvia (2006). Brand attachment was measured using six items adapted from Malär et al. (2011), in line with brand attachment measures previously used in consumer research (Thomson et al., 2005). Consumers' SNS behaviours, i.e. liking and sharing intentions, were measured using items from Yi, Jackson, Park, and Probst (2006), and Lee and Ma (2012); commenting intentions were adapted from those used by Yi et al. (2006), and Lee and Ma (2012). The scale items for self-extension tendency were adapted from Ferraro et al. (2011). Details of the scale items are shown in Table II.

< Insert Table II here >

### *Scale assessment*

Scale items used to measure constructs were assessed for their unidimensionality, reliability, and validity (Anderson and Gerbing, 1982). First, exploratory factor analysis (EFA) was run to confirm that the items loaded on the original constructs. The EFA results revealed that the constructs were unidimensional and the items loaded on their respective constructs. Then, following Gerbing and Anderson (1988), a two-step approach to structural equation modelling (SEM) was adopted: running a measurement model to assess the convergent and discriminant validity prior to estimating the path relationship from a structural model. Convergent validity of the constructs was assessed by checking the factor loading of the items (Hair et al., 2010), and it was found that all the items loaded (with minimum factor loading of 0.76) on their respective latent construct (see Table II).

The lowest value of composite reliability (CR) was 0.95 for actual self, thus indicating high internal consistency of the scale items used. The square root of AVE for each construct was greater than the correlation between the given construct and the remaining constructs (see Table III), which supports the constructs' convergent and discriminant validity (Fornell and Larcker, 1981; Hair et al., 2010). In addition, chi-square difference tests (Segars, 1997; Zait and Berteau, 2011) were used to assess discriminant validity between the pairs of actual, ideal, and social selves. The chi-square difference tests were significant for each pair: actual-ideal ( $\Delta\chi^2 = 267.26$ ,  $\Delta df = 1$ ,  $p < 0.05$ ); actual-social ( $\Delta\chi^2 = 316.26$ ,  $\Delta df = 1$ ,  $p < 0.05$ ); and ideal-social ( $\Delta\chi^2 = 334.08$ ,  $\Delta df = 1$ ,  $p < 0.05$ ). This further supports that actual, ideal, and social selves are distinct from each other. The goodness-of-fit measures for the measurement model showed a good fit ( $\chi^2 = 1452.64$ ,  $df = 669$ ,  $\chi^2/df = 2.17$ , RMSEA = 0.06, CFI = 0.94, NFI = 0.90; TLI = 0.94; SRMR = 0.04).

< Insert Table III here >

To minimize the potential effects of common method variance, various procedural and statistical remedies were adopted as per Podsakoff et al. (2003). First, under procedural remedies, a cover letter was crafted for the questionnaire, assuring respondents' anonymity and requesting their honest responses. The logo of the focal brand (Nike) was in the questionnaire as a cue, so that respondents could relate to the brand. These remedies helped to reduce the possibility of socially desirable responses and respondents' evaluation apprehension. Second, pre-validated scales to measure the constructs were used, and to facilitate psychological separation between the measurement of predictor and criterion, variables were placed in distinct sections. Third, the study used scales with different response formats (Likert scales and semantic differential scales) to reduce method bias.

Under statistical remedies, two methods were utilized to attenuate the effects of common method variance. First, following existing literature (Podsakoff et al., 2003; Roy and Rabbanee, 2015), to test if all the measurement items in the survey load on a dominating factor, Harman's one factor test was conducted. The factor analysis generated five factors explaining 79.78% of the

variance (the five factors accounted for 31.62%, 16.13%, 13.98%, 13.36%, and 4.67% of the variances), indicating that no single factor accounts for most of the variance. Second, the latent common factor method was used, in which the items were allowed to load on their theoretical constructs as well as on a latent common method variance factor. Then, the structural parameters of the two models (with and without the latent common method variance factor) were examined (Podsakoff et al., 2003). In line with Conger et al. (2000), the fit indices of both the models were then compared: the fit indices of the model with the latent factor ( $\chi^2 = 1439.65$ ,  $df = 668$ ,  $\chi^2/df = 2.16$ , RMSEA = 0.06, CFI = 0.95, NFI = 0.90; TLI = 0.94) were similar to the fit indices of the model without the latent factor ( $\chi^2 = 1452.64$ ,  $df = 669$ ,  $\chi^2/df = 2.17$ , RMSEA = 0.06, CFI = 0.94, NFI = 0.90; TLI = 0.94), indicating that common method bias is not a problem.

## Results

The hypotheses of the study were tested with SEM using AMOS 22.0, and the fit indices of the structural model were acceptable ( $\chi^2 = 1083.26$ ;  $df = 418$ ;  $\chi^2/df = 2.59$ ; RMSEA = 0.07; CFI = 0.94; TLI = 0.93; NFI = 0.91). The structural path relationships and corresponding coefficients are shown in Table IV.<sup>3</sup>

< Insert Table IV here >

Table IV shows that actual self ( $\beta = 0.49$ ;  $p < 0.001$ ) and social self ( $\beta = 0.45$ ;  $p = 0.001$ ) are significantly related to brand attachment, whereas ideal self ( $\beta = -0.05$ ;  $p = 0.63$ ) is not. These dimensions of self-congruity account for 53% of the variance ( $R^2 = 0.53$ ) for brand attachment. With regards to the effects of brand attachment on SNS behaviours, brand attachment was found to be significantly related to liking ( $\beta = 0.74$ ;  $p < 0.001$ ), sharing ( $\beta = 0.70$ ;  $p < 0.001$ ), and commenting ( $\beta = 0.64$ ;  $p < 0.001$ ) with  $R^2$  values of 0.53, 0.54, and 0.50, respectively. H1 advanced

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<sup>3</sup> The model was also run with the control variable, familiarity with Nike. Familiarity was significant, but the two models were not significantly different ( $\Delta\chi^2 = 1182.36 - 1083.26 = 99.1$ ;  $\Delta df = 504 - 418 = 86$ ,  $p > .05$ ), nor were there any differences in significant relationships. What is presented here is the more parsimonious model without the control variable.

that one or more of the three self-congruity orientations would affect brand attachment; both actual and social self-congruity were significant, thereby supporting H1. H2 is also supported.

Next, the mediating role of brand attachment on the relationships between self-congruity types and consumers' SNS behaviours was examined. Following Reimann et al. (2010), both the direct effect (types of self-congruity on SNS behaviours) and the indirect effect (self-congruity types on SNS behaviours via brand attachment) were examined to check for full/partial mediation. The direct effects of actual self on liking ( $\beta = 0.003$ ;  $p = 0.98$ ), sharing ( $\beta = -0.06$ ;  $p = 0.61$ ), and commenting ( $\beta = -0.12$ ;  $p = 0.33$ ) were found to be non-significant. However, the indirect effects of actual self on liking ( $\beta = 0.23$ ;  $t = 2.81$ ), sharing ( $\beta = 0.21$ ;  $t = 2.55$ ), and commenting ( $\beta = 0.22$ ;  $t = 2.76$ ) through brand attachment were significant (all  $p$ 's  $< .05$ ). This shows that brand attachment fully mediates the link between actual self-congruity and liking, sharing, and commenting.

In a similar vein, the direct effect of social self on liking ( $\beta = 0.11$ ;  $p = 0.39$ ) was not significant, but the direct links of social self with sharing ( $\beta = 0.52$ ;  $p < 0.001$ ) and with commenting ( $\beta = 0.35$ ;  $p = 0.006$ ) were significant. The indirect effects of social self on liking ( $\beta = 0.19$ ;  $t = 2.60$ ), sharing ( $\beta = 0.18$ ;  $t = 2.57$ ), and commenting ( $\beta = 0.19$ ;  $t = 2.56$ ) through brand attachment were found to be significant. Hence, it can be said that brand attachment fully mediates the relationship between social self and liking, and partially mediates the links of social self with sharing and commenting. On the other hand, brand attachment does not mediate the relationships between ideal self-congruity and liking, sharing, and commenting since there is a lack of a significant relationship between ideal self-congruity and brand attachment, as noted above.

To test the moderation hypothesis (H4), we used PROCESS Model 1 with Johnson-Neyman significance region for floodlight analysis (Hayes, 2013). In this model, each type of self-congruity was used as the independent variable (X), while brand attachment served as the dependent variable (Y). Further, while analysing the effect of a specific type of self-congruity (e.g. actual), the other two types (e.g. ideal and social) were held as control variables. Self-extension tendency served as the moderator.

For actual self-congruity, its interaction with self-extension tendency on brand attachment was significant (interaction  $\beta = 0.09$ ,  $t = 2.44$ ,  $p = .02$ ). A close inspection of Table V shows the conditional effect of actual self-congruity at focal values of the moderator, self-extension tendency. The Johnson-Neyman point for the moderator variable was 3.0146, which means when self-extension tendency equals or exceeds that value, the relationship between actual self-congruity and brand attachment gets reinforced (i.e. the effect size is positive, significant, and higher as the moderator value moves from 3.0146 to 7.0). This zone of significance is shaded in Table V.

<Insert Table V here>

PROCESS Model 1 analysis with ideal self-congruity showed a non-significant two-way interaction on brand attachment (interaction  $\beta = 0.04$ ,  $t = 1.42$ ,  $p = .16$ ). Finally, social self-congruity had a significant interaction with self-extension tendency for brand attachment (interaction  $\beta = 0.06$ ,  $t = 1.98$ ,  $p = .048$ ). In this case, the Johnson-Neyman point was 1.58; thus, as self-extension tendency increases beyond that point, the relationship between social self-congruity and brand attachment gets stronger (see shaded region in Table VI). Based on these findings, there is partial support for H4: the relationships between actual and social self-congruity and brand attachment are strengthened with higher levels of self-extension tendency.

<Insert Table VI here>

## **Discussion**

Study 1 tested the proposed model using a student sample ( $N = 282$ ). Findings revealed that actual and social selves, but not ideal self, influenced brand attachment. H1 posited that one or more of the self-congruity orientations would affect brand attachment, and hence, it is supported. Brand attachment significantly influenced SNS behaviours, notably liking, sharing, and commenting on Facebook, consistent with H2. It was shown that brand attachment mediated the relationships of actual and social selves with liking, sharing, and commenting behaviours (H3). Further, a floodlight analysis revealed that the actual and social self-congruity relationships with brand attachment were

strengthened as self-extension tendency increased amongst participants (H4). Collectively, these findings support the theoretical framework advanced in Figure 1.

To enhance the generalizability of Study 1, Study 2 was conducted through a nationwide online survey in Australia, with Ray Ban, a manufacturer of iconic sunglasses, as the focal brand. How individuals identify with products is not only idiosyncratic but is also affected by product class/brand (Malär et al. 2011); thus, Study 2 is a strong test of the proposed theory: will self-congruity orientations be realized? Will the posited chain of relationships be supported?

## **Study 2**

Study 2 uses a different product category, sunglasses. Australia was the first country to introduce a national standard for sunglasses in 1971 (Silveria, 2010). About 71% of Australians own at least one pair of non-prescription sunglasses, of which 79% wear them all or most of the time when outside on a sunny day; 76% claim they wear sunglasses most of the time while driving or travelling in a vehicle (Australian competition and consumer commission, 2013). The focal brand studied is Ray Ban, an iconic name in the sunglasses category. Ray Ban has been instrumental in pushing boundaries in music and the arts, promoting the rise of celebrity culture, and using rock and movie stars to influence fashion.<sup>4</sup> Ray Ban claims 5% of the global eyewear market and is the largest sunglasses brand in the world with 2.065 billion euros of revenue in 2014.<sup>5</sup>

To participate in the study, respondents had to be between the ages of 25 and 45 as well as have a Facebook account. A total of 369 respondents completed the survey; however, 27 were removed, either due to written comments at the end of the survey, such as the brand not being relevant to them, or due to straight-line responses. A total of 342 responses (49% female; average yearly income ~AU\$96,000) was used for data analysis. The survey instrument used the same scale items as in Study 1. The scale items and Facebook scenario were contextualized for Ray Ban.

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<sup>4</sup> [http://www.luxottica.com/sites/luxottica.com/files/ray-ban\\_history\\_en.pdf](http://www.luxottica.com/sites/luxottica.com/files/ray-ban_history_en.pdf)

<sup>5</sup> <http://fortune.com/2016/01/27/ray-ban-luxottica-retooled/>

Reliability and validity of the scale items were tested the same way as in Study 1. These results mirrored those of Study 1 and are available on request. Like Study 1, we also ran chi-square difference tests to assess the discriminant validity between the pairs of actual, ideal, and social selves. The chi-square difference tests were significant for each pair: actual-ideal ( $\Delta\chi^2 = 700.22$ ,  $\Delta df = 1$ ,  $p < 0.05$ ); actual-social ( $\Delta\chi^2 = 793.07$ ,  $\Delta df = 1$ ,  $p < 0.05$ ); and ideal-social ( $\Delta\chi^2 = 677.32$ ,  $\Delta df = 1$ ,  $p < 0.05$ ). Therefore, actual, ideal, and social selves are distinct from each other. The goodness-of-fit measures for the measurement model showed a good fit ( $\chi^2 = 1274.94$ ,  $df = 671$ ,  $\chi^2 / df = 1.90$ , RMSEA = 0.05, CFI = 0.97, NFI = 0.94; TLI = 0.97; SRMR = 0.03).

## Results

We employed Hayes' (2013) PROCESS macro Model 4 (5,000 bootstrapped samples). The PROCESS macro tests for indirect effects using ordinary least squares regression to estimate the parameters of each of the equations separately (Hayes et al., 2017; Zhao et al., 2010). In our model, each of the self-congruity orientations (actual, ideal, and social) was used as an independent variable (X), while like, share, and comment served as the dependent variables (Y). Brand attachment was the mediating variable (M). When examining the effect of a specific type of self-congruity (e.g. actual), the other two types (e.g. ideal and social) were included as covariates. Thus, a total of nine models (3 independent variables x 3 dependent variables) were run to examine the effect of each self-congruity orientation on SNS behaviour via brand attachment.

As is evident from Table VII (a), (b), and (c), the effects of actual self ( $\beta=0.40$ ;  $t=3.98$ ,  $p < .01$ ) and ideal self ( $\beta=0.36$ ;  $t=4.21$ ,  $p < .01$ ) on brand attachment were significant, but this was not the case for social self ( $\beta=0.17$ ;  $t=1.86$ ,  $p = .06$ ). Because two self-congruity orientations are significant, these insights lend support to H1. As seen in Table VII (d), brand attachment significantly influenced 'like' ( $\beta=0.69$ ;  $t=9.06$ ,  $p < .01$ ), 'share' ( $\beta=0.53$ ;  $t=7.31$ ,  $p < .01$ ), and 'comment' ( $\beta=0.57$ ;  $t=7.81$ ,  $p < .01$ ), thus supporting H2. The indirect effects of actual self and ideal self on 'like' (for actual:  $\beta=0.28$ ; for ideal:  $\beta=0.25$ ), 'share' (for actual:  $\beta=0.21$ ; for ideal:  $\beta=0.19$ ),

and ‘comment’ (for actual:  $\beta=0.23$ ; for ideal:  $\beta=0.20$ ) via brand attachment were positive and significant because there was no ‘zero’ between LLCI and ULCI (see Table VII (a) and (b)). Thus, brand attachment mediates the relationships of actual self and ideal self with ‘like’, ‘share’, and ‘comment’. However, the indirect effects of social self on ‘like’, ‘share’, and ‘comment’ were not significant (see Table VII (c)). Therefore, brand attachment does not mediate the relationship between social self and ‘like’, ‘share’, and ‘comment’. Collectively, however, these insights lend support to H3.

<Insert Table VII here>

#### *Moderation of self-extension tendency—floodlight analysis*

Similar to Study 1, PROCESS Model 1 was used for floodlight analysis (Hayes, 2013). One independent variable (self-congruity orientation) was studied at a time while controlling for the other two. Self-extension tendency served as the moderator, while brand attachment was the dependent variable.

For actual self-congruity, its interaction with self-extension tendency was significant (interaction  $\beta = 0.06$ ,  $t = 3.31$ ,  $p = .001$ ). A close inspection of the conditional effect of actual self-congruity at focal values of the moderator, self-extension tendency, showed that the Johnson-Neyman point for the moderator variable was 1.6899. Similar, to Study 1, the relationship between actual self-congruity and brand attachment was strengthened with higher levels of self-extension tendency (e.g. the effect size for self-extension = 1.6899 was .218, while the effect size was 0.52 when self-extension tendency = 7.0).

The two-way interaction between ideal self-congruity and self-extension tendency was also significant (interaction  $\beta = 0.05$ ,  $t = 3.14$ ,  $p = .002$ ). The Johnson-Neyman point was 2.3575, and as predicted, the strength of the relationship between ideal self-congruity and brand attachment increased with self-extension tendency. For example, at the focal value of 2.3575, the effect size was 0.17, increasing to 0.41 when self-extension tendency was 7.0.

Similar to Study 1, the interaction between social self-congruity and self-extension tendency was significant (interaction  $\beta = 0.05$ ,  $t = 2.96$ ,  $p = .003$ ). The Johnson-Neyman point was 5.2651, and the relationship between social self-congruity and brand attachment strengthened at higher levels of self-extension tendency (e.g. at 5.2651, the effect size was .17, whereas at 7.0, it was 0.26). These insights, therefore, support H4.

## **General discussion**

The factors influencing consumer engagement with social networking sites (SNS) are explored in this research. As a result, the research reveals that self-congruity orientation, brand attachment and self-extension tendency influence consumers' pro-brand behaviours, notably their actions of liking, sharing and commenting on Facebook. Overall, the findings share similarities with those of Grace, Ross and Shao (2015) who found that Facebook is used to communicate different aspects of the self. The findings from both studies (Study 1 and Study 2) of the current research corroborate that multiple self-congruity orientations can be active on SNS, thus lending support to the theoretical model shown in Figure 1. In Study 1, actual and social self-congruity significantly influenced brand attachment whereas, in Study 2, actual and ideal self-congruity influenced brand attachment. The two studies used different brands. How individuals identify with brands was found to be affected by product class/brand (Malär et al., 2011) and, hence, the difference in the type of self-congruity orientation was not surprising. The lack of support for the ideal self in Study 1 is not meant to contradict or downplay the important insights by previous researchers (e.g. Hollenbeck and Kaikati, 2012; Malär et al., 2011). A plausible explanation for this lack of support may be that Nike uses prominent sports figures to promote their sportswear. While these celebrities are well known and thus likely to attract attention to advertisements, they may be too incongruent with one's ideal aspirations, and thus, ideal self-congruency does not form (Koo et al., 2014). In Study 2, where Ray Ban sunglasses are the focal brand, the actual and ideal selves significantly affect brand attachment. We can speculate why social self-congruity was not realized in this case, e.g. there are many stylish

sunglasses brands, and sunglasses are widely used in Australia, so it is unlikely that wearing Ray Bans is perceived by users as projecting a ‘social self’. A motivation for embracing Ray Ban sunglasses may be for more private, intra-personal purposes, which have been shown to align with actual and ideal self-concepts (Aguirre-Rodriguez et al., 2012). However, which self-congruity orientations are significant is not the point here; instead, both studies show that more than one self-congruity orientation can drive brand attachment and that social self-congruity receives support, in this case with an iconic global brand studied in a Western culture (Australia). These findings are in line with the fact that one’s personas are fluid, and multiple self-concepts can be activated at once (Belk, 2013), which in turn affects consumers’ behaviours (Liu et al., 2012; Sirgy et al., 2000; Sirgy, 2018). Given the proliferation of brand communities—some operating independent of the focal organization—and the profound effect SNS can have on the purchase decisions of others (Simonson and Rosen, 2014), considering all three self-concepts is topical.

In addition, both studies found support for brand attachment significantly influencing liking, sharing, and commenting on Facebook—Study 1 showed brand attachment mediating the links of actual and social self-congruity with liking, sharing, and commenting; Study 2 showed brand attachment mediating the relationships of actual and ideal self-congruity with liking, sharing, and commenting. In today’s SNS-connected world, the importance of online brand advocacy behaviours cannot be underestimated (Malhotra et al., 2013; Saboo et al., 2016; Simonson and Rosen, 2014). Third-party endorsements of brands have a profound influence on the decision-making processes of potential customers. A reason for publicly endorsing a brand is that consumers are attached to it (Elbedweihy et al., 2016; Park et al., 2010; Thomson et al., 2005; Zhou et al., 2012). Further, in Study 1, the relationships of actual and social self-congruity with brand attachment strengthened as self-extension tendency increased, while in Study 2, the links of all three self-congruity orientations with brand attachment strengthened when self-extension tendency increased.

## **Theoretical implications**

This research offers theoretical extensions to research pertaining to self-congruity, brand attachment, and SNS behaviours (liking, sharing, and commenting), specifically: the effect of social self-congruity on brand attachment, the mediating role of brand attachment, and the moderating effect of self-extension tendency. Although the tendency to invoke different personas is particularly prevalent in the social networking domain (Belk, 2013), research to date has largely focused on actual and ideal self-congruity (e.g. Hollenbeck and Kaikati, 2012; Hosany and Martin, 2012; Japutra et al., 2017; Japutra et al., 2018; Koo et al., 2014; Malär et al., 2011). The extant research also shows that the motivation to control different aspects of the self can drive Facebook usage (Grace et al., 2015). In the current study, we extend this line of theoretical argument by presenting empirical evidence that social self-congruity influences brand attachment, with this then affecting pro-brand behaviours on Facebook (i.e., liking, sharing and commenting).

The mediating role of brand attachment on the effect of actual, ideal, and social self-congruity on social networking behaviours is the second key contribution of this research. Both studies showed brand attachment mediating the links between self-congruity orientations and liking, sharing, and commenting. Thus, the current research unveils the psychological mechanism of consumer pro-brand behaviours in SNS, which no previous study has done. In Study 1, social self-congruity had both direct effects as well as indirect effects via brand attachment on SNS behaviours, which further highlights the importance of including social self-congruity in studies on brand attachment and SNS behaviours.

Having illuminated context-specific drivers of brand attachment, what moderates these relationships is the third theoretical contribution. Using possessions to extend the self was recognized three decades ago (Belk, 1988, 2013) and, thus, has been encouraged as a boundary condition to explore (Hollenbeck and Kaikati, 2012; Sprott et al., 2009). People vary in the degree to which they use possessions to extend themselves (their self-extension tendency), to express who they are—a reason why individuals do/do not have strong reactions when brands are taken away,

such as due to a burglary (Ferraro et al., 2011). Here, we found that self-extension tendency interacted with self-congruity to positively affect brand attachment.

### **Managerial implications**

The first recommendation for managers is to assess which self-congruity orientation(s) is relevant to the organization. Contextualizing the measures in Table II is a means to do so. Because organizations can have a variety of products/brands, this market research exercise can be conducted at a higher, organizational level, as was done here; however, if the firm's product categories/brands appeal to easily separated target audiences and have correspondingly different promotion efforts, managers should conduct this exercise at a more granular level.

Armed with the knowledge of which self-congruity orientations are relevant to the focal product/brand, campaigns to appeal to that orientation can be developed, which should stimulate brand attachment. Although we are not privy to Nike's promotion decision-making process, it appears to have done this. Nike's well-recognized but very general slogan, 'Just do it', is a statement that everyone can relate to—to varying degrees, we all 'do it'. While it is encouraged that Nike corroborate these findings, it appears that it has been successful at creating a tagline that resonates with the actual self, which in turn has positive effects on attachment to the brand. Nike also offers the opportunity to personalize some items (Holt, 2002), a means to extend the actual self through a possession (Belk, 1988).

To stimulate social self-congruity, Nike has rolled out a variety of apps targeted at different audiences so that consumers can join and interact with like-minded communities, where participants can project a social self, including under a fictitious name, if so desired. A recent study reports activation of social self-congruity in an Eastern culture (India) but not in the USA, and thus postulates that brands appealing to the social self are likely to lead to positive brand attitudes in countries like India (Gonzalez-Jimenez et al., 2019). The findings here stem from data collected in Australia, thus lending support to social self-congruity in a Western culture. Based on our findings,

social-self congruity can further enforce attachment to the brand and influence pro-brand advocacy. Global brands such as Nike should be cognizant of these findings and adapt their advertising campaigns to focus more on local social dynamics. Iconic brands like Nike, Apple, and Coca Cola should, therefore, endeavour to weave their brand into micro cultures within local online communities where there is a predominant influence of the social self (Kozinets, 2017).

In the case of Ray Ban, the actual and ideal selves influenced brand attachment. Many would consider Ray Ban sunglasses cool and sophisticated, attributes some consumers may think are consistent with their actual self. Alternatively, given the plethora of celebrities who have worn Ray Ban, it is reasonable to speculate that one or more of them would be an idealized version of themselves: Brad Pitt? Lady Gaga? General MacArthur was photographed wearing them in the Philippines in 1944. What self-concept persona drives brand attachment is context-specific and thus an important insight for marketers to assess.

Previous research has shown the benefits of brand attachment on variables such as share of wallet, sales, and loyalty (Park et al., 2010). Shown here are the effects brand attachment has on online pro-brand consumer engagement social networking behaviours, namely liking, sharing, and commenting. In both studies, brand attachment mediated the self-congruity → SNS behaviour relationships. Given the powerful effect that online advocacy has on decision-making processes of potential customers (Simonson and Rosen, 2014), both studies make it clear that brand attachment is another important metric to measure. Measurement scales have been provided.

If it is reasonable to interact with customers, it is appropriate to measure their self-extension tendency as well. Evidence here shows that those with relatively higher levels of self-extension tendency have higher levels of brand attachment and are thus more prone to engage in pro-brand SNS behaviours. Identifying these individuals and encouraging them to generate eWOM would likely prove beneficial.

### *Limitations and future research*

Participants stated their beliefs with respect to Nike/Ray Ban, and their intended actions on Facebook were studied in cross-sectional designs. Both are iconic brands, and Facebook enjoys the largest SNS membership. Accepted methodological approaches were used to improve the veracity of the findings. Nevertheless, future research should consider a wider area of focal brands (for example, store brands, mundane brands, and luxury brands) as well as other SNS. As noted previously, congruity orientations are likely to be affected by both context and individual differences (Malär et al., 2011), but studying a wider array of brands may reveal general patterns. For example, the actual self may play a bigger role with respect to store/mundane brands and the social self with luxury brands. If this is the case, it will have generalizable practical relevance for promotion design and placement.

Stated online intentions were measured, not revealed behaviours. Because stated intentions and revealed behaviours need not be in accord, more work-embracing methods, such as content analysis of brand-related narratives, are encouraged (Hollenbeck and Kaikati, 2012). Finally, a strong test of causality would include parsing data collection over time, separating elicitation of beliefs from stated intentions/revealed behaviours. However, in support of the approach here, both brands are well known, and hence, it is reasonable to assume that beliefs are relatively stable, which discounts the need for temporal separation.

In conclusion, important insights have been unearthed with respect to factors affecting brand attachment (recognizing the role of social self-congruity), the mediating role of brand attachment with respect to social networking behaviours, and that self-extension tendency moderates the self-congruity → brand attachment relationship. The importance that social networking behaviours have on consumers as well as potential customers cannot be overstated (Malhotra et al., 2013; Saboo et al., 2016; Simonson and Rosen, 2014; Wallace et al., 2012). While follow-on research is encouraged, progress has been made to better our understanding of antecedents driving social networking behaviours.

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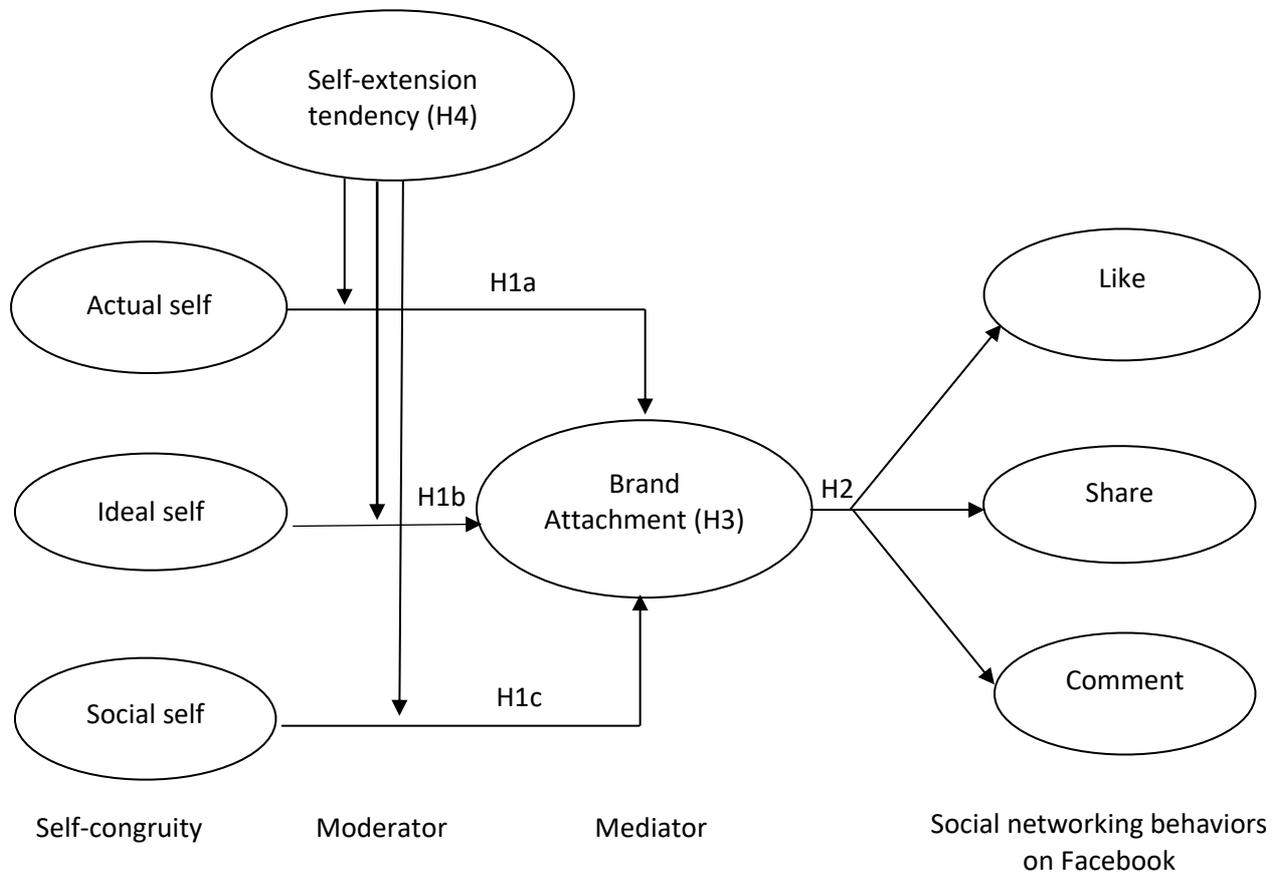
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## List of Figures and Tables

**Figure 1:**  
**Conceptual model**



**Table I.**  
**Literature summary**

<b>Study</b>	<b>IV (Main)</b>	<b>DV</b>	<b>Contribution</b>
Sirgy et al. (2000)	Store environment, store patron image, shoppers' self-concept, self-congruity, functional congruity	Retail patronage	A postulated model with propositions for future research to study relationships amongst store atmospherics, store patron image, shoppers' self-concept, self-congruity, functional congruity and retail patronage.
He and Mukherjee (2007)	Actual, ideal and social self-congruity	Satisfaction, perceived value and store loyalty	Actual and social self congruity affect satisfaction and perceived value, which in turn affect loyalty. Ideal self-congruity was not significant.
Malär et al. (2011)	Actual and ideal self-congruity	Emotional brand attachment	Actual self-congruity had a greater impact on emotional brand attachment. This relationship is moderated by product involvement, self-esteem and public self-consciousness.
Hollenbeck and Kaikati (2012)	Actual and ideal self-congruity	Consumers' usage of brands	Truthful representation of actual self through brands is not always the case. Multiple selves may blend, or consumers prefer a specific self over another in cases of conflict to inform brand connections.
Hosany and Martin (2012)	Actual and ideal self-congruity	Satisfaction and behavioural intentions	Actual and ideal self-congruity directly influence passengers' experiences but indirectly influence satisfaction levels.
Liu et al. (2012)	Brand personality congruity, brand's user imagery congruity and the brand's usage imagery congruity	Attitude and brand loyalty	In comparison to brand personality congruity, user and usage imagery congruity are stronger predictors of brand attitude and loyalty.
Koo et al. (2014)	Actual and ideal self-congruity	Evaluation and purchase intention	Actual (ideal) leads to positive (negative) evaluation of visual and atmospheric cues of an online store, which ultimately influences purchase intention.
Roy and Rabbane (2015)	Social desirability, need for uniqueness and status consumption	Self-congruity, usage behaviour	Social desirability, need for uniqueness and status consumption drives self-congruity with the brand, which in turn influences usage behaviour.

Japutra et al. (2017)	Actual and ideal self-congruity	Brand attachment, impulsive buying behaviour	Actual self-congruity is a relatively stronger predictor of brand attachment. The effect of actual and ideal self-congruity on impulsive/compulsive buying behaviour is mediated through brand attachment.
Japutra et al. (2018)	Ideal self-congruity, emotional brand attachment	Compulsive buying, external trash talking	Ideal self-congruity influences brand attachment, which in turn affects compulsive buying and external trash talking. Brand attachment is found to mediate these relationships.
Gonzalez-Jimenez et al. (2019)	Actual, ideal, social and ideal social self-congruity	Brand attitude	Culture moderates the effect of self-congruity on brand attitude. The actual self-congruity effect is stronger for interdependent consumers whereas the ideal self-congruity effect is stronger for independent consumers. Social self-congruity effects hold in the interdependent but not in the independent culture context.
Tan et al. (2019)	Actual and ideal self-congruity with a present vs. future focus	Willingness to pay, brand preference	Consumers with a present focus evaluate a brand more preferably when the brand reflects their actual selves. In the absence of present focus (i.e., distant future and distant past), it has been found that consumers' willingness to pay is more for a brand that reflects their ideal selves.
This study *	Actual, ideal and social self-congruity	Brand attachment, social networking behaviours	All three self-congruity dimensions can influence brand attachment, which in turn influences social networking behaviours. The influence of self-congruity types on brand attachment is moderated by self-extension tendency.

**Table II.**  
**Descriptive statistics and factor loadings of the scale items [Study 1]**

Code	Scale Items	Factor Loading	Mean	SD
<b>Actual Self:</b> [reliability ( $\alpha$ ) = 0.93]				
AS1	The personality of Nike is consistent with how I see myself.	0.81	3.61	1.39
AS2	The personality of Nike is a mirror image of me.	0.76	3.16	1.43
AS3	People who use Nike are similar to how I see myself.	0.90	3.45	1.40
AS4	People who prefer Nike are identifiable with me at present.	0.87	3.47	1.48
AS5	The image of a typical Nike user is highly consistent with how I see myself.	0.89	3.34	1.46
<b>Ideal Self:</b> [reliability ( $\alpha$ ) = 0.96]				
IS1	The personality of Nike is consistent with how I would like to be.	0.87	3.48	1.64
IS2	The personality of Nike is a mirror image of the person I would like to be.	0.87	3.28	1.59
IS3	People who use Nike are similar to how I would like to see myself.	0.92	3.37	1.63
IS4	People who prefer Nike are identifiable with my ideal self-image.	0.94	3.29	1.63
IS5	The image of a typical Nike user is consistent with how I would like to see myself.	0.95	3.28	1.59
<b>Social Self:</b> [reliability ( $\alpha$ ) = 0.95]				
SS1	People who use Nike are similar to how I am seen by others.	0.92	3.17	1.58
SS2	People who prefer Nike are identifiable with me as I am seen by others.	0.95	3.16	1.59
SS3	The image of a typical Nike user is consistent with how I am seen by others.	0.91	3.08	1.59
SS4	Nike contributes to my image as perceived by others.	0.84	3.14	1.62
SS5	Nike adds to a social 'role' I play.	0.84	3.13	1.72
SS6	Nike has a positive impact on what others think of me.	0.82	3.27	1.76
<b>Brand Attachment</b> [reliability ( $\alpha$ ) = 0.96]				
My feelings toward Nike brand can be characterized by –				
BA1	- Affection	0.88	2.96	1.76
BA2	- Love	0.88	2.82	1.73
BA3	- Connection	0.91	3.10	1.78
BA4	- Passion	0.91	3.12	1.85
BA5	- Delight	0.87	3.26	1.85
BA6	- Captivation	0.84	3.30	1.94

LK1	<b>Like:</b> [reliability ( $\alpha$ ) = 0.96]			
	I intend to press 'like' on the posts about the product descriptions from Nike.	0.94	3.21	1.76
LK2				
LK3	I anticipate that I will press 'like' on the product description posts.	0.96	3.19	1.71
	I will click 'like' on the posts about the product description.	0.95	3.12	1.74
<hr/>				
	<b>Share:</b> [reliability ( $\alpha$ ) = 0.97]			
SH1	I intend to share the posts about the product descriptions from Nike.	0.96	2.59	1.65
SH2	I expect to share the posts about the product descriptions.	0.96	2.58	1.67
SH3	I will share the posts about the product descriptions.	0.93	2.46	1.64
<hr/>				
	<b>Comment:</b> [reliability ( $\alpha$ ) = 0.94]			
COM1	I intend to comment on the posts about the product descriptions from Nike.	0.89	2.56	1.64
COM2	I will write a comment on the posts about the product descriptions.	0.95	2.44	1.50
COM3	I expect to comment on the posts about the product descriptions.	0.96	2.44	1.51
<hr/>				
	<b>Self-Extension Tendency:</b> [reliability ( $\alpha$ ) = 0.95]			
ST1	I have a special bond with my favorite possessions.	0.81	4.54	1.53
ST2	I consider my favorite possessions to be a part of myself.	0.88	4.31	1.63
ST3	I often feel a personal connection between my special possessions and me.	0.90	4.21	1.65
ST4	Part of me is defined by the special possessions in my life.	0.87	3.95	1.71
ST5	I feel as if I have a close personal connection with the possessions I most prefer.	0.92	4.00	1.58
ST6	I can identify with important possessions in my life.	0.86	4.11	1.54
ST7	There are links between my special possessions and how I view myself.	0.86	4.03	1.58
ST8	My favorite possessions are an important indication of who I am.	0.85	4.08	1.08

- All measures are seven-point scales.

**Table III.**  
**Psychometric properties of the constructs [Study 1]**

<b>Constructs</b>	<b>AS</b>	<b>IS</b>	<b>SS</b>	<b>LK</b>	<b>SH</b>	<b>COM</b>	<b>BA</b>	<b>SET</b>
Actual self (AS)	1							
Ideal self (IS)	0.82	1						
Social self (SS)	0.80	0.81	1					
Like (LK)	0.67	0.67	0.67	1				
Share (SH)	0.63	0.57	0.67	0.76	1			
Comment (COM)	0.59	0.57	0.65	0.68	0.82	1		
Brand attachment (BA)	0.67	0.61	0.71	0.69	0.68	0.68	1	
Self-extension tendency (SET)	0.28	0.26	0.37	0.34	0.37	0.34	0.40	1
Composite Reliability (CR)	0.95	0.98	0.97	0.98	0.98	0.97	0.97	0.98
Average Variance Extracted (AVE)	0.82	0.90	0.87	0.95	0.95	0.93	0.87	0.85

**Table IV.**  
**Standardized coefficients, t-values, and p-values of the structural model [Study 1]**

<b>Particulars</b>	<b>Weights</b>	<b>t-value</b>	<b>p-value</b>	<b>Decision</b>
Actual self => Brand attachment	0.49	3.49	0.001	Significant
Ideal self => Brand attachment	-0.05	-0.48	0.63	Not significant
Social self => Brand attachment	0.45	3.22	0.001	Significant
Brand attachment => Like	0.74	13.89	0.001	Significant
Brand attachment => Share	0.70	14.43	0.001	Significant
Brand attachment => Comment	0.64	12.79	0.001	Significant

**Table V.**  
**Floodlight analysis with actual self-congruity and self-extension [Study 1]**

<b>Conditional Effect of Actual Self-congruity at values of Self-extension</b>						
Self-extension	Effect	SE	t	P	LLCI	ULCI
1.0000	.0399	.1616	.2470	.8051	-.2782	.3580
1.3000	.0673	.1531	.4395	.6607	-.2340	.3686
1.6000	.0946	.1449	.6530	.5143	-.1906	.3798
1.9000	.1220	.1371	.8893	.3746	-.1480	.3920
2.2000	.1493	.1299	1.1494	.2514	-.1064	.4051
2.5000	.1767	.1233	1.4331	.1530	-.0660	.4193
2.8000	.2040	.1173	1.7388	.0832	-.0270	.4350
3.0146	.2236	.1136	1.9686	.0500	.0000	.4472
3.1000	.2314	.1122	2.0621	.0401	.0105	.4522
3.4000	.2587	.1080	2.3958	.0173	.0461	.4713
3.7000	.2861	.1048	2.7293	.0068	.0797	.4924
4.0000	.3134	.1028	3.0498	.0025	.1111	.5157
4.3000	.3408	.1019	3.3436	.0009	.1401	.5414
4.6000	.3681	.1023	3.5986	.0004	.1667	.5695
4.9000	.3955	.1039	3.8067	.0002	.1910	.6000
5.2000	.4228	.1066	3.9649	.0001	.2129	.6328
5.5000	.4502	.1105	4.0751	.0001	.2327	.6676
5.8000	.4775	.1153	4.1430	.0000	.2506	.7044
6.1000	.5049	.1209	4.1758	.0000	.2669	.7429
6.4000	.5322	.1273	4.1813	.0000	.2816	.7828
6.7000	.5596	.1343	4.1665	.0000	.2952	.8240
7.0000	.5869	.1419	4.1374	.0000	.3077	.8662

**Table VI.**  
**Floodlight analysis with social self-congruity and self-extension [Study 1]**

<b>Conditional Effect of Social Self-congruity at values of Self-extension</b>						
Self-extension	Effect	SE	t	P	LLCI	ULCI
1.0000	.2461	.1593	1.5447	.1236	-.0675	.5597
1.3000	.2660	.1516	1.7546	.0804	-.0325	.5645
1.5818	.2848	.1446	1.9686	.0500	.0000	.5695
1.6000	.2860	.1442	1.9830	.0484	.0021	.5698
1.9000	.3059	.1371	2.2306	.0265	.0359	.5758
2.2000	.3258	.1304	2.4978	.0131	.0690	.5826
2.5000	.3457	.1242	2.7835	.0057	.1012	.5903
2.8000	.3657	.1185	3.0858	.0022	.1324	.5990
3.1000	.3856	.1134	3.4003	.0008	.1624	.6088
3.4000	.4055	.1090	3.7208	.0002	.1910	.6201
3.7000	.4255	.1054	4.0384	.0001	.2181	.6329
4.0000	.4454	.1026	4.3420	.0000	.2435	.6473
4.3000	.4653	.1007	4.6194	.0000	.2670	.6636
4.6000	.4852	.0999	4.8589	.0000	.2886	.6818
4.9000	.5052	.1000	5.0512	.0000	.3083	.7021
5.2000	.5251	.1012	5.1910	.0000	.3260	.7242
5.5000	.5450	.1033	5.2776	.0000	.3417	.7483
5.8000	.5650	.1063	5.3147	.0000	.3557	.7742
6.1000	.5849	.1102	5.3092	.0000	.3680	.8018
6.4000	.6048	.1148	5.2693	.0000	.3789	.8308
6.7000	.6247	.1201	5.2034	.0000	.3884	.8611
7.0000	.6447	.1259	5.1194	.0000	.3968	.8926

**Table VII.**  
**Mediation Analysis through PROCESS macro using Hayes (2013) Model 4 [Study 2]**

a) Independent Variable: Actual self

<b>Dependent Variables</b>	$\beta$	se	t	p	Indirect Effect via Brand Attachment [BootLLCI - BootULCI]
Brand Attachment	0.40	0.10	3.98	0.000	--
Like	-0.15	0.14	-1.07	0.28	0.28 [0.09 – 0.46]
Share	0.40	0.13	2.92	0.003	0.21 [0.06 – 0.37]
Comment	0.27	0.14	1.99	0.04	0.23 [0.07 – 0.39]

b) Independent Variable: Ideal self

<b>Dependent Variables</b>	$\beta$	se	t	p	Indirect Effect via Brand Attachment [BootLLCI - BootULCI]
Brand Attachment	0.36	0.08	4.21	0.000	--
Like	0.19	0.12	1.54	0.12	0.25 [0.08 – 0.40]
Share	-0.26	0.11	-2.21	0.02	0.19 [0.07 – 0.31]
Comment	-0.36	0.11	-3.08	0.002	0.20 [0.07 – 0.33]

c) Independent Variable: Social self

<b>Dependent Variables</b>	$\beta$	se	t	p	Indirect Effect via Brand Attachment [BootLLCI - BootULCI]
Brand Attachment	0.17	0.09	1.86	0.06	--
Like	0.13	0.13	0.99	0.32	0.12 [-0.02 – 0.34]
Share	0.18	0.12	1.49	0.13	0.09 [-0.01 – 0.26]
Comment	0.35	0.12	2.77	0.005	0.10[-0.01 – 0.29]

d) Independent Variable: Brand Attachment

<b>Dependent Variables</b>	$\beta$	se	t	p
Like	0.69	0.07	9.06	0.000
Share	0.53	0.07	7.31	0.000
Comment	0.57	0.07	7.82	0.000