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Consumers' self-congruence with a 'Liked' brand: cognitive network influence and brand outcomes.

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Consumers' self-congruence with a 'Liked' brand: cognitive network influence and brand outcomes

Abstract:

Purpose: Brand 'Likes' on Facebook facilitate self-expression, forming part of consumers' virtual selves. Yet consumers' brand 'Likes' may bear little resemblance to their material realities. This paper tests similarities of brand image with self-image for Facebook 'Likes' to determine whether self-congruence with a 'Liked' brand leads to positive offline brand outcomes. It also investigates whether consumers' perceptions about their Facebook social relations influence self-congruent brand 'Likes'.

Design/methodology/approach: A large-scale survey was conducted of regular Facebook users who 'Liked' brands. Data from 438 respondents was analysed and hypotheses tested using structural equation modeling.

Findings: Empirical results show that the perceived self-congruence with a 'Liked' brand increases with social tie strength. Perceived social tie strength is informed by perceived attitude homophily. When the perceived self-congruence with a 'Liked' brand is higher, brand love and word of mouth are enhanced. Consumers also have greater brand loyalty and offer more word of mouth when brands are loved.

Research limitations/implications: Findings demonstrate the influence of consumers' cognitive network on 'Likes' and brand outcomes. Further replication would enhance generalisability. Future research should use a wider sample and investigate other variables.

Practical implications: Findings support managers seeking to grow and analyse Facebook 'Likes', by providing insights into brand loyalty, brand love and word of mouth for 'Liked' brands.

Originality/value: The paper addresses the dearth of research exploring how consumers' perceptions of their Facebook network influence their online brand behaviour and how perceived self-congruence with a 'Liked' brand relates to brand outcomes.

Keywords: *Self-congruence, homophily, social tie strength, brand loyalty, brand love, word of mouth.*

Article classification: Research paper.

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3 **1. Introduction**
4

5 Critical to understanding the relationship between consumers, brands, and brand outcomes is
6 self-congruence, also referred to in the literature as self-image congruence, self-congruity and
7 image congruence (Kressmann *et al.*, 2006). Self-concept theory states that people seek to
8 maintain their self-concept, in part through the products and brands they own, seek to own, or
9 do not wish to own (Graeff, 1996). Self-congruence is evident where the brand-user image
10 (or personality) of a given product, brand, or store matches consumer's self-concept
11 (Kressmann *et al.*, 2006; Sirgy *et al.*, 1997). When a consumer believes their (ideal or actual)
12 self-concept fits a brand's personality, they experience greater (ideal or actual) self-
13 congruence, which results in positive outcomes, such as stronger brand loyalty (Sirgy, 1982),
14 positive self-perceptions and intention to re-use (Roy and Rabbane, 2015) and favourable
15 brand attitudes and greater purchase intention (Aguirre-Rodriguez *et al.*, 2012; Kressmann *et*
16 *al.*, 2006).
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26 Until recently, research on self-congruence with brands was offline centred, where brand
27 consumption involved physical interactions. Recently research has broadened the exploration
28 of the self-concept to consider the role of brands in the construction of the online self (Back *et*
29 *al.*, 2010; Hollenbeck and Kaikati, 2012), where 'consumption' is virtual (Schau and Gilly,
30 2003). With the growth and ubiquity of online social networks sites (SNS), such as
31 Facebook, users continue to use possessions to project aspects of themselves, with particular
32 brands creating, in part, an aggregated self, cognisant of the affirmation that friendship social
33 networks can provide (Belk, 2013). In online social networks, consumers use brands as a
34 'shorthand', to create a self-identity by 'describing to others who they are, as well as who they
35 are not' (Schau and Gilly, 2003, p. 400). A critical distinction between online and offline
36 brand 'consumption' is that brands used for self-presentation on SNS may never be owned,
37 but are 'consumed' through interaction social networks (Schau and Gilly, 2003; Sekhon *et al.*,
38 2015). However, on SNS, consumers' choices of brands are highly public (Hollenbeck and
39 Kaikati, 2012). Therefore brands may, arguably, be more critical to the self-concept in this
40 virtual world, than offline. Recent literature has therefore argued for further investigation of
41 self-congruence in consumers' self-presentation on SNS (Belk, 2013).
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53 Extant research on Facebook has examined whether SNS facilitate presentation of the
54 actual or ideal self (Back *et al.*, 2010; Hollenbeck and Kaikati, 2012). Back *et al.* (2010) find
55 that on SNS, such as Facebook, consumers express their self through profiles, which tend to
56 reflect the actual self. However, Back *et al.*'s (2010) research focuses on the relationship
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between ones' personality as presented on Facebook, and ones' offline personality. As such posts directly describe the individual, the authors acknowledge that Facebook users may be cognisant of their friends' ability to provide 'accountability and subtle feedback' on ones' Facebook identity and therefore may be less likely to present an idealised self (Back *et al.*, 2010, p. 372).

Less is known about the extent to which other Facebook activities are used to project a self, which friendship networks may not be in a position to evaluate or authenticate. Schau and Gilly (2003) suggested, for example, that consumers may include products in their Facebook profiles that are outside their material reality, for the purpose of impression management. As Schau and Gilly (2010, p. 394) note 'consumers construct and post personal Web sites as a form of conspicuous self-presentation where every element is chosen for its semiotic potential'. Following their research on consumer Facebook profiles, Back *et al.* (2010) call for the role of specific profile components such as photos or preferences, in investigating the online self, versus the offline self. Extant literature suggests that consumers who 'Like' can potentially lack any true sense of identification with a brand, and may merely be superficially interested in it (Zaglia, 2013).

Hollenbeck and Kaikati's (2012) pioneering work has broadened the investigation of self-concept on Facebook, and explored consumers' uses of brands as a means to provide cues to the self. They extend Back *et al.*'s (2010) research exploring Facebook users' use of brands 'as more subtle cues about themselves' (Hollenbeck and Kaikati, 2012, p. 396). Hollenbeck and Kaikati (2012) identified that consumers use brands to mould others' impressions of themselves and may represent either the ideal and/or the actual self, through interactions with brands. Drawing on insights from a substantial study of Facebook users, they revealed that consumers' use of brands provided more subtle ideal-self expressions that had previously 'slipped under the radar' (Hollenbeck and Kaikati, 2012, p. 403). Their study also found that the ideal and actual self sometimes conflict on Facebook and may blend (congruous) or conflict (incongruous) but when the identities are congruous, participants indicate either ideal or actual selves through brands.

This study explores consumers' self-congruence with Facebook 'Likes' for brands. While consumers may 'Like' many things, including causes, or events, this study focuses on consumers' 'Likes' for brands. The 'Like' function for brands allows consumers to share pages from that brand's website on their own Facebook profile, and by clicking 'Like' the consumer opts into receiving updates from the brand that will appear in their news feeds

(Richard and Guppy, 2014). When consumers link themselves to brands via Facebook ‘Likes’, this also creates an impression on others, as consumers are linking themselves ‘publicly and deliberately’ to brands (Hollenbeck and Kaikati, 2012, p. 397). Research on social network stimuli indicated that ‘advertising on Facebook significantly can affect sales, primarily in the long run, and particularly by creating ‘Likes’ (Brettel *et al.*, 2015, p. 170). However, on Facebook, consumers often ‘Like’ brands that are outside their material realities (Schau and Gilly, 2003; Sekhon *et al.*, 2015). Therefore, although the consumer can ‘Like’ a brand on their Facebook profile, ‘Liking’ may not signify a ‘true’ brand relationship, as one can ‘Like’ brands without purchasing them (Belk, 2013). In addition, although ‘Liked’ brands are value-expressive, as they are associated with a group or person (Bearden and Etzel, 1982), they may not always be self-congruent. Financial incentives (Wong, 2010), information seeking (Parker, 2012) and a desire for identity construction (Douma, 2008) may motivate ‘Likes’ that are incongruent with the self. Clearly, the self-congruence with Facebook ‘Likes’ requires further investigation.

Facebook friends also influence a consumer’s own ‘Liking’ behaviour. Socialisation agents such as peers can influence the acceptance of certain products (Hogg *et al.*, 2009). As such, the number of Facebook friends’ ‘Likes’ have been found to significantly influence purchase intentions (Richard and Guppy, 2014). Facebook facilitates the development, transfer, negotiation and alteration of brand meaning, as the interplay between social interaction on Facebook, the self, and one’s socially visible character influences the meaning of an object (Ligas and Cotte, 1999). Therefore, when a consumer interacts with a brand on Facebook (for example by ‘Liking’ it), the interplay between that consumer, the brand ‘Liked’, and their Facebook friends’ interpretation of this ‘Like’ informs the meaning of the brand and how the consumer’s socially visible character is perceived. Thus, consumers’ Facebook friends encourage them to consider their network displays more carefully (Schau and Gilly, 2003) and consequently the Facebook friendship structure may influence the brands consumers ‘Like’. An investigation of self-congruent ‘Liking’ should therefore consider the effect of consumers’ friendship structures on the self-congruence with their ‘Likes’.

Within this context, this study seeks to address the managerial and academic understanding of Facebook brand ‘Likes’, their influences and outcomes. Specifically, we first examine whether consumers’ cognitive networks, that is, their perceptions of their Facebook social network structure, influence the extent to which their brand ‘Likes’ are self-

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3 congruent. Second, we explore whether self-congruence with a 'Liked' brand leads to positive
4 offline brand outcomes.
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7 This research contributes to the literature in various ways. First, we respond to
8 Hollenbeck and Kaikati's (2012) call for quantitative research to compliment and validate
9 their findings about consumers' expressions of self via Facebook. Specifically, in our
10 quantitative study, we adopt Hollenbeck and Kaikati's (2012) contention that the self
11 presented on Facebook may be either an actual or an ideal self.
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16 Second, our research also addresses the call by Belk (2013) to explore network features
17 as a means of better understanding consumers' relationships with brands. It is recognised that
18 individuals engaging in self-presentation may be sensitive to impression management,
19 seeking to project images of themselves that they consider to be appropriate to a particular
20 target audience (Leary and Allen, 2011). On social networks, extant research suggests that
21 self-presentation behaviour is informed by social tie strength. Therefore, by exploring the
22 relationship between perceived social tie strength and self-congruent 'Likes', we advance
23 knowledge in relation to consumers' relationships with others on their online social networks.
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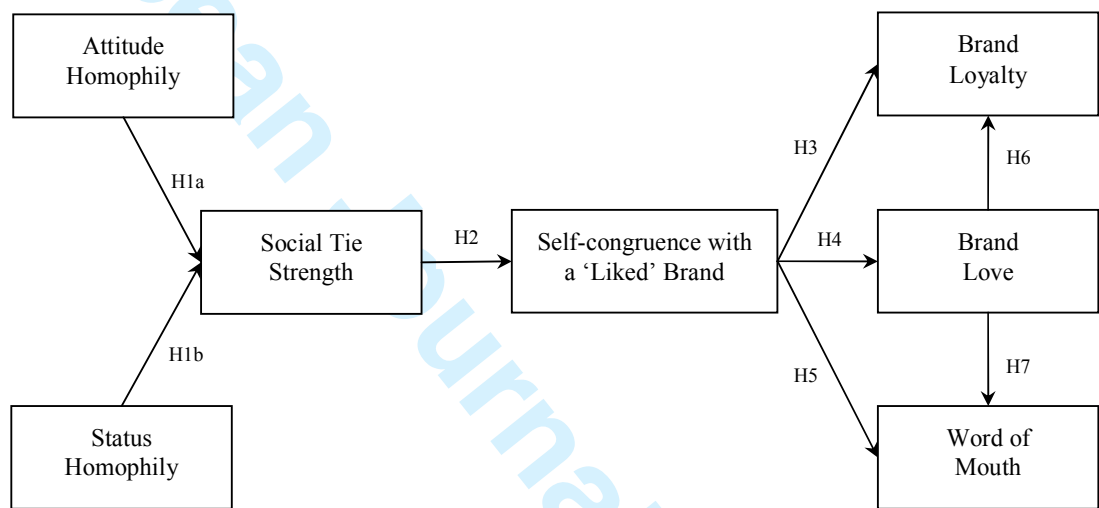
29
30 Third, although attracting Facebook 'Likes' remains a potentially valuable marketing
31 strategy for marketers (Hollis, 2011), less is known about the relationship between brand
32 'Likes' and offline brand behaviours, such as brand loyalty or word of mouth (WOM). Thus,
33 this issue merits investigation. In the current study, we expand recent insights (Richard and
34 Guppy, 2010) by examining the influence of the self-congruence with ones' 'Likes' on brand
35 outcomes (i.e. brand loyalty, brand love and WOM). To the best of our knowledge, no
36 previous studies have quantitatively investigated this relationship.
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42 In the following sections we elaborate on the theoretical underpinnings of our research.
43 We then provide information about data collection and analysis, and report the findings.
44 Finally, we discuss the implications of those findings for practitioners and identify
45 opportunities for further research.
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2. Conceptual framework and hypotheses

The model presented in Figure 1 depicts the relationships in our study. We investigate the perceived self-congruence with a ‘Liked’ brand on Facebook by considering the influence of consumers’ perceptions about their friendship network on their self-congruent ‘Likes’ and by examining the relationship between self-congruent ‘Likes’ and offline brand outcomes.

Figure 1: Conceptual framework



Recent literature on consumers’ interactions with brands identifies the importance of social interactions in the negotiation and adoption of brands (Hogg *et al.*, 2009). Interactions between friends have been found to positively influence brand self-congruence (Reingen *et al.*, 1984), which leads to positive brand outcomes. For example, young consumers will develop a strong self-connection with a brand when there is a strong relationship between the brand and their reference group and where their self-concept is strongly connected to that reference group (Escalas and Bettman, 2003). Consumers are motivated by public self-motives and may choose brands that are consistent with a social self-concept, for the purpose of social acceptance or self-enhancement (Aguirre-Rodriguez *et al.*, 2012). To better understand the relationship between social interactions and self-congruent brands, brand ‘Likes’ on Facebook are an interesting context of study. Facebook permits an ‘idealised view’ of ones’ self-narrative (Belk, 2013, p. 484). Extant research suggests that consumers who use brands as

part of that self-narrative may present both ideal and actual versions of themselves through those brands (Hollenbeck and Kaikati, 2012).

As noted earlier, extant research has called for an exploration of network features when seeking to understand consumers' relationships with brands (Belk, 2013). Therefore, we ask: to what extent do ones' Facebook friendships inform the extent to which 'Likes' are self-congruent? We explore the influence of consumers' perceptions about their Facebook network on consumers' online brand behaviours. Specifically, we investigate whether the characteristic of homophily influences perceived social tie strength (Granovetter, 1973) and we examine whether social tie strength influences the extent to which brand 'Likes' are self-congruent.

In an offline context, identification with brands requires ownership (Muniz and O'Guinn, 2001). On social networks such as Facebook, brands 'consumed' often remain outside the consumer's material reality, and brand 'Likes' do not require the financial commitment of a purchase (Schau and Gilly, 2003). Hollenbeck and Kaikati (2012) observe that brand 'Likes' may reflect an idealised self, with over 70% of their respondents reporting that more brands represented aspects of the idealised self, rather than the actual self. In their pioneering research on Facebook users, they found that information directly created by the user (such as a 'Like' for a brand), was used to mould others' impressions of them. In our study, we build upon this important work, by quantitatively measuring each consumer's self-congruence with a 'Liked' brand, on Facebook.

In addition, our research considers how each consumer's self-congruence with a 'Liked' brand influences brand outcomes. Although managers are becoming more comfortable with the use of social networks for their brands, the issue of ROI remains a challenge (Hoffman and Fodor, 2010). While managers seek to enhance the number of 'Likes' for their brands, consumers may use those 'Likes' to co-construct virtual identities, without any 'true' brand relationship (Schau and Gilly, 2003). It is therefore important to distinguish between the 'real aficionados' of brands and the 'poseurs' who use brands on social networks merely to enhance the self (Belk, 2013, p. 493).

Offline, common outcomes of consumers' self-congruence with brands are brand loyalty (Kressmann *et al.*, 2006), brand love (Rauschnabel and Ahuvia, 2014) and positive WOM (Saenger *et al.*, 2013). Our study seeks to offer new insights into the relationship between self-congruence and these offline brand outcomes, when the brand is 'Liked' in the virtual world of Facebook. Thus, we ask: do self-congruent 'Likes' also lead to those positive brand

outcomes? Specifically, we investigate the relationship between the extent to which ‘Likes’ are self-congruent, and the brand outcomes of brand loyalty, brand love and WOM. We next describe our hypotheses in more detail.

2.1 *The social network and self-congruent ‘Liking’*

Social networks can be defined as a set of actors with relationships, or ties, between them (Goldenberg *et al.*, 2009). On Facebook, when one ‘friends’ another, the friendship relationship is reciprocal. Therefore, when a consumer ‘Likes’ a brand on Facebook, it appears on their profile page, and on their friends’ pages, increasing the social conspicuousness of the brands they ‘Like’. Belk (2013, p. 484) notes that ‘Facebook is now a key part of self presentation for one sixth of humanity’, and that ‘friends co-construct and reaffirm each others’ sense of self’ through content and through response to others’ content. Brand ‘Likes’ are an example of such content. Facebook allows consumers to ‘Like’ brands to construct selves that are not necessarily consistent with true selves, or their material realities (Schau and Gilly, 2003), for example by ‘Liking’ aspirational brands, or those approved by a social group. Brand ‘Likes’ can therefore serve to create a group-self (Hogg *et al.*, 2009), informed by the brand meanings imbued by Facebook friends.

Brand choices, and the extent to which those choices are self-congruent, depend heavily on the consumer’s social structural unit and the nature of the social relations within that unit (Reingen *et al.*, 1984). In particular, as Belk (2013) explains, differences in digital relationships are informed by Granovetter’s (1973) ideas about relational structure and social ties. Therefore, we first examine how perceived social relations within the Facebook social network influence the extent to which ‘Liked’ brands are self-congruent. This study measures consumer perceptions of their social relations, rather than actual existing social relations. Objective studies of existing social relations suggest that a social network is an external constraint over which the consumer has little control. While measurement of such structures may be important to investigations of product diffusion for example, Marsden (1990) explains that measures of ‘cognitive networks’, that is, social relations as perceived by the actors within them, are more appropriate when studying social influences on attitudes and opinions. Specifically, we consider the influence of perceived homophily (Lazarsfeld and Merton, 1954) on perceived social tie strength (Granovetter, 1973), and we explore the extent to which perceived social tie strength is an antecedent of self-congruent brand ‘Likes’.

Homophily is the principle that ‘contact between similar people occurs at a higher rate than among dissimilar people’ (McPherson *et al.*, 2001, p. 416). It is long recognised as an organizing standard that informs social structures (Lazarsfeld and Merton, 1954; Marsden, 1988). In homophilous relationships, ‘birds of a feather will flock together’. For example, age homophily is evident in social affiliations, interactions, and interpersonal networked connections (Louch, 2000). If an individual’s Facebook friend network is comprised of people in their twenties, there is a high probability that person is also in their twenties. In this study, we distinguish between perceived attitude homophily and perceived status homophily. Perceived attitude homophily considers the extent to which consumers believe their network friends are attitudinally alike, whereas perceived status homophily considers the extent to which consumers believe their network friends are from similar socioeconomic backgrounds (McCroskey *et al.*, 1975). In sum, homophily asserts that people will have a natural tendency to socialise more frequently with those who are more like themselves.

The frequency of interactions can be represented as social tie strength. On social networks, each individual is a ‘node’ connected to other nodes. Connections between nodes are known as social ties (Newman, 2010). The strength of a tie is defined as ‘a (probably) linear combination of the amount of time, the emotional intensity, the intimacy (mutual confiding) and the reciprocal services which characterise the tie’ (Granovetter, 1973, p. 1361). The principle of homophily in a dyadic tie network such as Facebook will be influenced by the similarity of those individuals. When people perceive their friends are more like them, they are likely to interact with them more frequently. Therefore, we postulate that consumers who believe their Facebook friends are more like them will also perceive those ties to be stronger. We posit:

H1a: Greater perceived attitude homophily is positively associated with greater perceived social tie strength.

H1b: Greater perceived status homophily is positively associated with greater perceived social tie strength.

When one ‘Likes’ a brand on Facebook, the brand is assimilated into one’s profile, forming cues for others to form an impression about them. Thus, the Facebook self is co-constructed through interactions with other networked friends (Belk, 2013) and attachment to other group members informs the negotiation of brand meaning within that social environment (Hogg *et al.*, 2009). On a Facebook friendship network, differences between

distant versus immediate friends inform what brands consumers will share with others and how those items will be interpreted and assimilated into an extended self (Belk, 2013).

In investigating the relationship between individuals, their friends, and consumers' use of brands on social networks, Belk (2013) cautions that a distinction must be made between those who are closer on ones' network who forge and reinforce bonds with products and those who are more remote. Hollenbeck and Kaikati (2012) also helpfully note 'friend' on Facebook may not carry the usual connotation and they suggest weaker ties between individuals may allow a consumer to create a more idealised version of themselves, without as much risk of social sanction. Clearly, in an investigation of self-congruence through brands 'Liked' on Facebook, it is important to distinguish between strong and weak ties.

Granovetter's (1973) strong ties versus weak ties are a means to understand these relationships (Belk, 2013). Granovetter (1973) defined social ties in terms of friends' perceptions about their emotional intensity, their mutual intimacy and their degree of reciprocity. On Facebook, stronger ties exist between individuals who communicate more frequently, consider each other to be 'true' friends and are involved in each other's lives. Extant literature suggests that strong ties are positively associated with shared tastes (Lewis *et al.*, 2008). Likewise, Reingen *et al.*'s (1984) work on social ties suggested self-congruence with a brand in an offline context depended in part on the type of social relation between individuals and their structural unit. However, Reingen *et al.*'s (1984) research was limited to the offline social setting of the college sorority. Less is known about the extent to which consumers' perceived social relations influence the self-congruence with brands in an online context. Cognizant that common bonds provide coordinates for the self in consumption settings (Hogg *et al.*, 2009) such as Facebook, where online consumption of brands may never require a brand purchase (Schau and Gilly, 2003), allowing consumers to associate with any brand, regardless of its existence in their material reality and cognizant that Facebook brand consumption may be influenced by the strength of the social relation with networked others (Belk, 2013), we propose that social tie strength will influence the extent to which consumers 'Like' brands on Facebook that are self-congruent. As such, we hypothesise:

H2: Greater perceived social tie strength is positively associated with greater perceived self-congruence with a 'Liked' brand.

2.2 Brand self-congruence and brand outcomes

Extant literature suggests that 'Likes' by the self, or by friends, is positively associated with consumers' purchase intentions (Richard and Guppy, 2014). However, as Lapointe (2012, p. 286) notes, 'to truly understand the predictive value of a Fan, we need to acknowledge that not all fans are created equal'. Although some consumer fans may be brand devotees, other subgroups may lack positive affect towards the brand and may be only superficially interested in it (Zaglia, 2013). Earlier we noted that consumers may 'Like' for many reasons, such as to enter competitions or to achieve discounts (Wallace *et al.*, 2014), or to present an augmented self-identity that is far removed from the customer's material reality (Schau and Gilly, 2003).

In the offline world, extant literature identifies a positive relationship between brand self-congruence and brand outcomes, such as positive brand affect (Mazodier and Merunka, 2012), brand love (Rauschnabel and Ahuvia, 2014), brand loyalty (Kressman *et al.*, 2006), and brand WOM (Saenger *et al.*, 2013). We contend, therefore, that self-congruent 'Likes' will also lead to positive brand outcomes, specifically brand loyalty, brand love, and brand WOM, for those brands.

We first explore the relationship between the perceived self-congruence with a 'Liked' brand and brand loyalty. Extant studies in an offline context reveal an important role for self-congruence in the creation of brand loyalty (Kressmann *et al.*, 2006; Malär *et al.*, 2011; Malhotra, 1988; Sirgy, 1982). When consumers perceive a match between their self-concept and the personality of the brand, the use of the brand enhances their self-esteem (Malhotra, 1988). Likewise, the consumption of a self-congruent brand enables consumers to achieve self-consistency (Ericksen and Sirgy, 1989). Therefore, the satisfaction of both consumers' need for self-esteem and self-consistency prompts the consumer to evaluate the brand positively leading to loyalty (Kressmann *et al.*, 2006).

Sirgy *et al.* (2008) found that self-congruence with a sponsored event has a positive effect on brand loyalty. As such, when a firm is sponsoring an event that consumers can identify with, it is more likely they develop feelings of brand loyalty. Kressmann *et al.* (2006) also revealed a direct and indirect effect, through functional congruity, product involvement and brand relationship quality, of self-congruence on brand loyalty. Building on this literature, we investigate whether self-congruent 'Likes' in the virtual world of Facebook will result in brand loyalty. We posit:

H3: Greater perceived self-congruence with a 'Liked' brand is positively associated with greater brand loyalty.

We next examine whether there exists a relationship between the perceived self-congruence with a 'Liked' brand and brand love. Brand love is 'the degree of passionate emotional attachment a satisfied customer has for a trade name' (Carroll and Ahuvia, 2006, p. 81). In the same way that one is attracted to another person because they are like themselves, consumers are attracted to more self-congruent brands (Rauschnabel and Ahuvia, 2014). Although little is known about 'Liked' brands and brand love, the literature suggests consumers' love is greater when a brand enhances one's social self and/or reflects one's inner self (Batra *et al.*, 2012; Carroll and Ahuvia, 2006). By 'Liking' a brand that is self-congruent, consumers communicate their true selves to others. The balance arising from their inner view and the public perception of themselves creates positive emotion, which leads to brand attachment (Malär *et al.*, 2011). Therefore, we postulate:

H4: Greater perceived self-congruence with a 'Liked' brand is positively associated with greater brand love.

Offline, congruence between the brand and the self has been positively associated with WOM (Jamal *et al.*, 2009; Saenger *et al.*, 2013). Recent research (Tuškej *et al.*, 2013) has shown the stronger a consumer identifies with brands, the more likely they are to engage in WOM. On social networks such as Facebook, the relationship between brands and WOM is less clear. Consumers' 'Liking' of brands on Facebook may be driven by a desire to sustain a certain narrative of the self, generated through interactions with networked others (Belk, 2013), where consumers are less motivated to offer recommendations for their 'Liked' brands and use the brand solely as a means to enhance their online profiles. Furthermore, the network coproduction model (Kozinets *et al.*, 2010), suggests WOM on social networks may be subject to group norms. Brand community research suggests identification with the community informs consumers' WOM (Hickman and Ward, 2013; Millán and Díaz, 2014). Further research suggests social networks facilitate WOM that is less motivated by altruism (Dichter, 1966) and more influenced by communal interests arising from the online network (Kozinets *et al.*, 2010). Just as 'Likes' offer opportunities for consumers to exaggerate their extended self through brands (Belk, 2013), consumers may offer WOM for 'Liked' brands because they are seeking to impress others, or to adhere to established norms. Therefore, while the power of the social network in facilitating WOM for brands is long established

(Reingen, 1987), the relationship between self-congruence with Facebook brand 'Likes' and WOM is less clear. Given the value of WOM to the brand manager, and the emphasis of marketing strategy in attaining 'Likes' (Hollis, 2011), this relationship requires investigation. Therefore, to test this relationship we hypothesise:

H5: Greater perceived self-congruence with a 'Liked' brand is positively associated with greater WOM.

Extant literature asserts that the feeling of love towards a brand is positively associated with brand loyalty (Albert and Merunka, 2013; Batra *et al.*, 2012; Bergkvist and Bech-Larsen, 2010; Carroll and Ahuvia, 2006; Thomson *et al.*, 2005) and positive WOM (Albert and Merunka, 2013; Batra *et al.*, 2012; Carroll and Ahuvia, 2006). However, while these results offer insights into the relationship between brand love and brand loyalty and WOM for brands in the material world, they offer few insights about brand love in the virtual world, as on the Facebook social network, the brand 'Liked' may be outside the consumer's material reality (Schau and Gilly, 20013). In fact, brand 'Likes' may not be an expression of brand affection or love. For example, as noted earlier, consumers may 'Like' brands for several reasons; utilitarian reasons such as to receive a discount or to enter a competition, or because they wish to express genuine love for the brand (Wallace *et al.*, 2014).

Batra *et al.*'s (2012) conceptualisation of brand love encompasses self-brand integration. As such, brands used to express identity (Belk, 1988) and brands that facilitate interpersonal relationships (McAlexander *et al.*, 2002) will achieve positive brand outcomes. Just as consumers utilise brands offline to express identity (Belk, 1998), some consumers use brand 'Likes' on Facebook for the purpose of identity construction (Schau and Gilly, 2003). Similarly, just as brands offline facilitate interpersonal relationships (McAlexander *et al.*, 2002), so too brand 'Likes' on Facebook help co-create identity through interaction with others on the social network (Belk, 2013). Therefore, one could expect 'Liked' brands that are loved will achieve positive brand outcomes, even though these brands may be outside the consumer's material reality. To contribute to the nascent understanding of brand love outcomes, we explore whether brand love for 'Liked' brands on Facebook will result in the positive brand outcomes brand loyalty and brand WOM. We hypothesise:

H6: Greater brand love for 'Liked' brands is positively associated with greater brand loyalty for those brands.

H7: Greater brand love for ‘Liked’ brands is positively associated with greater WOM for those brands.

3. Method

3.1 Data

We obtained data from 438 Facebook users who actively ‘Liked’ brands on Facebook. Respondents were asked to think about a brand they ‘Liked’ on Facebook, and to answer questions about that brand. The sample consisted of students at an Irish University. A student sample was employed as students are heavy Internet users (Gallagher *et al.*, 2001) and recent research on Facebook fans has shown that fan age skews significantly younger than a typical customer (Lipsman *et al.*, 2012), as the ‘typical Facebooker is approaching adulthood and is between the ages of 18 and 24’ (Richard and Guppy, 2014). Furthermore, the student sample has relevance for a study of self-congruence: studies exploring self-congruence in an offline context (Liu *et al.*, 2012; Roy and Rabbane, 2015), and research exploring the self-congruence of Facebook profiles (Back *et al.*, 2010), have used student samples.

In our study, all respondents used Facebook. 100% had ‘Liked’ brands on their profile pages and all had used Facebook in the last month. 63.2% of respondents were female. The mean age was 21.2 years, and 93.1% were Irish. Respondents were predominantly undergraduates (88%) and spent 2.4 hours on Facebook daily, with an average of 472 Facebook friends. A profile of respondents is presented in Table 1.

< Place Table 1 about here >

3.2 Measures

A full listing of survey measures is provided in Table 2. Measures used in this research were validated in previous studies.

< Place Table 2 about here >

Cognitive network measures of consumers’ perceptions about attitude homophily and status homophily were based on McCroskey *et al.*’s (1975) measures, with items including ‘Most of my Facebook friends think like me’ (perceived attitude homophily) and ‘Most of my Facebook friends have an economic situation like mine’ (perceived status homophily). We made one revision to McCroskey *et al.*’s scale items: the scale item ‘Have the same status as

me' was revised to 'Have the same social status as me', to clarify we were measuring social status, rather than Facebook status. Items were rated on 7-point Likert scales ranging from 1 = 'strongly disagree' to 7 = 'strongly agree'.

Perceptions of social tie strength were based on Granovetter's (1973) conceptualisation of social tie strength, and Brown and Reingen's (1987) study on social ties and WOM, prefaced by 'Most of my Facebook friends' with items including 'are people I interact with every day', 'are people I like to spend time with away from Facebook' and 'are true friends rather than acquaintances'. Each construct was measured with four items respectively, rated on 7-point Likert scales (1 = 'strongly disagree'; 7 = 'strongly agree').

Brand loyalty was measured using Yoo *et al.*'s (2000) measure of brand loyalty, with items including 'I consider myself loyal to this brand' and 'This brand would be my first choice when considering this type of product'. Participants responded to the statements on 7-point Likert scales with anchors 1 = 'strongly disagree' and 7 = 'strongly agree'.

The measures of brand love and WOM contain scales by Carroll and Ahuvia (2006). The brand love scale consists of 10 items including 'This is a wonderful brand' and 'I'm very passionate about this brand'. To allow for cultural variations in expression, one item 'This brand is awesome!' from the original Carroll and Ahuvia (2006) measure was revised as 'This brand is fantastic'. The WOM scale consists of 8 items, based on Carroll and Ahuvia's (2006) measure of WOM, but adapted to encompass WOM on Facebook. Items include 'I have recommended this brand to a lot of people' and 'I give this brand a lot of positive word of mouth online'. In this case, 5-point Likert scales were used, with anchors 'strongly disagree' and 'strongly agree'.

Finally, to measure the perceived self-congruence with a 'Liked' brand, we used the difference scores between brand personality and self-concept. The study adopted Geuens *et al.*'s (2009) measure of brand personality, a valid and reliable scale tested in USA and non-USA research contexts. The 12 items used to measure personality included facets such as 'down to earth', 'stable', 'responsible', 'active', 'aggressive' and 'sentimental' and reflect five major dimensions (see the measure in Appendix I). Following the traditional two-step procedure (Helgeson and Supphellen, 2006), respondents first rated the brand with respect to the twelve brand personality facets proposed by Geuens *et al.* (2009). For each item, respondents were asked to think about the brand 'Liked' and indicate to what extent the personality items applied to the brand (1 = 'not characteristic of this brand'; 5 = 'very characteristic of this brand'). Next, respondents rated their actual and ideal self-concepts

using the same characteristics. First, participants were asked to think about themselves and evaluate their actual self-concept by indicating to what extent these characteristics describe them (1= ‘not at all like me’; 5 = ‘very like me’). Similarly, ideal self-concept was evaluated asking respondents to indicate to what extent the same characteristics describe how they would like to be. Specifically, they were asked to think about how they would see themselves in an ideal world – their ideal self- and indicate how they would describe their ‘ideal self’ (1 = ‘not at all like my ideal self’; 5 = ‘very like my ideal self’).

Actual and ideal self-congruence scores were operationalised as the absolute difference score between respondents’ brand personality rating and their actual and ideal self-concept scores, respectively (Kressmann *et al.*, 2006). We multiplied each index by -1 so that larger values would indicate high self-congruence. This is mathematically indicated as

$$ASC_k = - \frac{\sum_{i=1}^n |BP_{ik} - AS_{ik}|}{n}$$

where, ASC_k = actual self-congruence score for respondent k , n = number of personality facets ($n = 12$), i = personality facet i ($i = 1...n$), BP_{ik} = brand rating on personality facet i for respondent k , and AS_{ik} = actual-self concept on personality facet i for respondent k . And,

$$ISC_k = - \frac{\sum_{i=1}^n |BP_{ik} - IS_{ik}|}{n}$$

where, ISC_k = ideal self-congruence score for respondent k , n = number of personality facets ($n = 12$), i = personality facet i ($i = 1...n$), BP_{ik} = brand rating on personality facet i for respondent k , and IS_{ik} = ideal-self concept on personality facet i for respondent k .

Actual and ideal self-congruence indices were correlated (.586), as expected. Therefore, consistent with extant approaches (Kressmann *et al.*, 2006), the two self-congruence indices were used as two indicators of self-congruence in the statistical model.

3.3 Questionnaire

The questionnaire presented to respondents was constructed as follows. After a brief introduction, respondents were asked questions about their general Facebook use (hours spent online, number of friends) and about their perceptions in relation to their Facebook friends (social tie strength and homophily). Then respondents were asked whether they ‘Liked’ a brand on Facebook and, if yes, what brand they ‘Liked’ on Facebook. Respondents who ‘Liked’ more than one brand were asked to think about only one of those brands throughout

the remainder of the survey. Brand outcomes measures (brand love, brand loyalty and WOM) came next. The brand personality, actual self and ideal self were then measured, by presenting personality facets and measuring level of agreement. Demographic questions were asked at the end of the questionnaire.

3.4 Test for Common Method Bias

As this study relies on self-reported measures, several steps were taken to prevent and control for common method bias (Podsakoff *et al.*, 2003). First, information confidentiality and anonymity reduce the possibility that the individuals responded artificially, or in a dishonest manner. In addition, dependent and independent variables were on different pages of the electronic questionnaire, trying to avoid respondents being able to infer cause-effect relationships among the constructs. To check for potential common method bias, exploratory factor analysis was carried out to establish the data factorial structure. This revealed the existence of seven different factors. The highest proportion of variance accumulated by one single factor was 20.27%. Consequently, the results of the factor analysis revealed that more than a single factor emerged with no single factor accounting for the majority of variance. A Harman's one-factor test by means of confirmatory factor analysis with EQS 6.1 also confirmed this finding. This test showed the goodness of fit for a measurement model where all the variables loaded on a single factor ($\chi^2 = 4315.03$; $df = 377$) was substantially worse than the goodness of fit for a model where every item loaded on its corresponding latent variable ($\chi^2 = 882.29$; $df = 356$; $\Delta\chi^2 = 3432.74$; $\Delta df = 21$; $p < 0.001$). Thus, there is no evidence to suggest the presence of common method bias.

4. Results

4.1 The measurement model

Scales were evaluated using confirmatory techniques to assess reliability, dimensionality and validity. Confirmatory factor analysis (CFA) using EQS 6.1 and the robust maximum-likelihood estimation method suggested the deletion of one item in the attitude homophily construct and two items in the brand love scale due to weak factor loadings. After these deletions, CFA produced an acceptable fit to the data: S-B $\chi^2 = 770.51$ (356) $p < 0.001$, NNFI = 0.926, CFI = 0.935, IFI = 0.935, RMSEA = 0.052 (Hair *et al.*, 2006). All factor loadings were above 0.5 and statistically significant which suggested the convergent validity of the

factors (Steenkamp and Van Trijp, 1991). The average variance extracted (AVE) and composite reliability (CR) values were greater than 0.5 and 0.7, respectively (Bagozzi and Yi, 1988). Discriminant validity was also supported. In all cases the AVE for any two constructs was always greater than the squared correlations (Fornell and Larcker, 1981). See Tables 2 and 3 for full details of the measurement model results.

< Place Table 3 about here >

4.2 The structural model

Prior to testing the hypotheses, multicollinearity was assessed. Variance inflation factor (VIF) was computed for each variable. Specifically, in this test each variable becomes a dependent variable and is regressed on the remaining independent variables. A VIF value that exceeds five is an indication of severe multicollinearity (Belsley, 1991). Results show that all VIF values remained below 1.9, so there is no indication of multicollinearity.

The results of the structural model indicate the model fits the data well (see Table 4). The results indicate perceived attitude homophily predicted social tie strength positively and significantly ($\beta = .538$, $t = 8.58$), providing support for H1a. However, H1b was not supported, as the relationship between perceived status homophily and social tie strength was not significant ($\beta = .084$, $t = 1.58$). Perceived social tie strength predicted the self-congruence with a 'Liked' brand ($\beta = .127$, $t = 2.09$), providing support for H2.

With respect to the hypotheses pertaining to the relationship between online 'Likes' and brand outcomes, higher perceived self-congruence with a 'Liked' brand successfully predicted brand love ($\beta = .162$, $t = 2.57$) and WOM ($\beta = .155$, $t = 3.22$), providing support for H4 and H5 respectively. The relationship between perceived self-congruence and brand loyalty was not significant ($\beta = .070$, $t = 1.54$). Therefore, H3 was rejected.

Finally, the results provide support for H6 and H7. Brand love is positively and significantly associated with greater brand loyalty ($\beta = .699$, $t = 13.80$) and WOM ($\beta = .503$, $t = 8.48$).

< Place Table 4 about here >

Following Preacher and Hayes (2008), a post hoc analysis of indirect effects was conducted. Specifically, we analysed whether the impact of perceived self-congruence with a

‘Liked’ brand on brand loyalty and WOM is mediated by brand love (see Table 5). Preacher and Hayes’ (2008) macro, using 5,000 bootstrapped samples and bias-corrected and accelerated 95% confidence intervals, was employed. This analysis includes an examination of the total and direct effects of the independent variable (IV) (i.e. self-congruence with a ‘Liked’ brand) on the dependent variable (DV) (i.e. brand loyalty and WOM), as well as an estimation of the indirect effect of the IV on the DV through the mediator (i.e. brand love). In addition, the bias-corrected and accelerated bootstrap generates a 95 percent confidence interval (CI) for the mediator. If the CI excludes zero, the indirect effect is significant.

Results show a positive and significant indirect effect of self-congruence on brand loyalty (coefficient = .208; CI: 0.002; 0.435). As the direct effect of self-congruence on brand loyalty is non-significant, brand love fully mediates this relationship. In addition to the direct effect, self-congruence also indirectly influences WOM through brand love (coefficient = .098; CI: 0.002; 0.209). Therefore, the influence of self-congruence on WOM is partially mediated by brand love.

< Place Table 5 about here >

5. Discussion

Considering the ubiquity of the Facebook social network it is somewhat surprising that so little is known about the influence of perceived social tie strength on brand ‘Liking’, or outcomes of brand ‘Likes’ - in terms of brand love, brand loyalty and WOM – for brands. Our study addresses these gaps by analysing the attitudes of 438 Facebook fans who ‘Like’ brands. Our study finds a) when consumers believe their network is characterised by greater social tie strength, the perceived self-congruence with a brand they ‘Like’ is higher, b) the perceived self-congruence with a brand they ‘Like’ positively affects WOM both directly and indirectly through brand love, and c) the perceived self-congruence with a brand they ‘Like’ positively influences brand loyalty through its effect on brand love.

5.1 Theoretical contributions

First, to the best of our knowledge, this is the first study to quantitatively measure the self-congruence (actual and ideal self) with ‘Liked’ brands and to explore antecedents and outcomes of self-congruent brand ‘Likes’ on Facebook. The current study builds on a growing body of literature that investigates the congruence of self-presentation on social

networks such as Facebook (e.g. Back *et al.*, 2010). More specifically, recent research has investigated how brands are used to present the self on social networks and explored the relationship between those brands and the self-concept. However, to date, most of this research has been qualitative in nature. For example, Sekhon *et al.* (2015) use content analysis to explore how consumers use brand mentions for self-presentation, drawing on twitter data to investigate braggart behaviour. In their seminal study, Hollenbeck and Kaikati (2012) also drew on a large-scale mixed-method qualitative study of Facebook users to explore consumers' representations of themselves on Facebook, focusing on consumers' use of brands as subtle cues to the self. Our research, therefore, extends these findings and responds to Hollenbeck and Kaikati's (2012) call for quantitative research to complement their findings.

Second, we address the call by Belk (2013) to consider social ties in investigating the relationship between brands and the online self, by exploring consumers' cognitive networks. Greater social tie strength exists where interactions between Facebook friends are more intimate, more frequent and where there is greater reciprocity between the tied parties (Granovetter, 1973). To date, some literature on consumers' use of brands on social networks has suggested their brand relationships may serve mainly to create an idealised self for friends to see (e.g., Schau and Gilly, 2003), while other research suggests that Facebook profiles may actually represent the true self, partly because 'faking it' could be challenged by Facebook friends (Back *et al.*, 2010). Furthermore, Hollenbeck and Kaikati (2012) suggest many Facebook friendships were characterised by weak ties, which allow individuals to provide an idealised version of themselves because of the reduced risk of social sanction from people who do not know them very well. Our study shows when the social network is characterised by strong social ties, there is greater self-congruence with a 'Liked' brand. We contend this finding supports Hollenbeck and Kaikati's (2012) assertions about weak ties, as we believe that, when consumers have stronger social ties, they 'Like' a brand with a higher level of self-congruence, possibly because they know their stronger friendship network would reveal them as fakes otherwise. We also suggest another reason for this finding: perhaps when their social ties are perceived to be strong, consumers feel more confident about revealing their self-congruent brand preferences?

This study has also examined the extent to which consumers perceived attitudinal homophily (whether they believed their friends thought in the same way they did) and status homophily (whether they believed their friends shared the same status as they had) among

their Facebook friends. Respondents were asked to answer thinking about ‘most of my Facebook friends’, so they would indicate the extent to which they perceived the majority of their Facebook friends were like them, or not like them. Results show when consumers perceive most of their Facebook friends are quite similar to themselves, those consumers are more likely to perceive their network is characterised by greater social tie strength. In other words, ‘birds of a feather flock together’, as when, for example, Mary perceives her Facebook friends to be more like herself, she is more likely to perceive there is a stronger social tie between Mary and those Facebook friends.

Third, our research offers new insights into the relationship between brand ‘Likes’ and brand outcomes. While the extant literature on brand outcomes identifies a positive relationship between self-congruence and brand loyalty (Kressmann *et al.*, 2006), brand love (Rauschnabel and Ahuvia, 2014), and positive WOM (Saenger *et al.*, 2013), brand outcomes have not been tested for brands in the virtual world, where brands may not be part of a consumer’s material reality (Schau and Gilly, 2003; Sekhon *et al.*, 2015).

Recent research has indicated a positive relationship between both Facebook ‘Likes’ and friends’ ‘Likes’ and customer purchase intention (Richard and Guppy, 2014). Drawing on offline research that indicates a relationship between self-congruence with a ‘Liked’ brand and brand consumption (Aguirre-Rodriguez *et al.*, 2012), we extend Richard and Guppy’s (2014) findings. Our study shows the perceived self-congruence with a ‘Liked’ brand leads to positive brand outcomes. Particularly, we show higher self-congruence with a ‘Liked’ brand successfully predicts brand love and WOM. By contrast, the relationship between self-congruence with a ‘Liked’ brand and brand loyalty is not significant. However, post hoc analysis reveals self-congruence with a ‘Liked’ brand indirectly influences brand loyalty via brand love. Similarly, the influence of self-congruence with a ‘Liked’ brand on WOM for that brand is partially mediated by brand love.

We were cognisant that consumers often ‘Like’ brands that offer discounts, rather than because of any real affect for the brand (Wallace *et al.*, 2014). However in this study we show when consumers have greater self-congruence with a ‘Liked’ brand, consumers also have greater love for that brand. This finding extends the perspective that offline, brands offering self-brand integration are more loved (Batra *et al.*, 2012), into the online context.

We also find a positive relationship between self-congruence with a ‘Liked’ brand and WOM. Tuškej *et al.* (2013) asserted that congruence between the brand and customer values enhances WOM. Although Tuškej *et al.*’s (2013) study involved consumers’ favourite

brands, this study finds the same outcome for brands ‘Liked’ on Facebook. When the perceived self-congruence with a ‘Liked’ brand is higher, consumer are also more inclined to offer WOM; or, alternatively, consumers are more likely to offer WOM for brands that are consistent with, and help to reinforce, their self-concept. Findings from Roy and Rabbanee (2015) may also explain the positive relationship between self-congruent brands and greater WOM. Their offline research found greater self-congruence for luxury brands positively influenced intention to reuse the brand’s shopping bag. We suggest that, just as the luxury brand’s shopping bag is prestigious to tote around (Roy and Rabbanee, 2015), offering WOM for a ‘Liked’ brand also creates an impression on others and allows consumers to ‘show off’ about a brand they believe is congruent with their self-concept.

In addition, our research informs our understanding of brand love. We sought to understand whether brand love for ‘Liked’ brands resulted in the same outcomes as studies of brand love for offline brands have revealed (see for example Carroll and Ahuvia, 2006). Our findings confirm a positive relationship between brand love and WOM. As anticipated, and supporting Carroll and Ahuvia’s (2006) offline finding, more loved ‘Liked’ brands engender greater positive WOM. As online brands are used, in part, as a form of self-expression (Schau and Gilly, 2003), it is understandable that consumers would also offer WOM for such brands, especially when those brands are loved. Likewise, results show that brand love for ‘Liked’ brands is positively associated with loyalty for those brands.

Finally, post hoc assessment of mediating effects reveals perceived self-congruence with a ‘Liked’ brand affects WOM indirectly via brand love. In addition, although perceived self-congruence does not directly influence brand loyalty, post hoc analysis of mediating effects illustrate brand love fully mediates the impact of self-congruence on brand loyalty. This finding implies consumers may only exhibit such loyalty when the brand holds emotional or passionate attachment for them.

5.2 Managerial implications

A key question is how marketing managers can best use social networks for successful marketing activities and analyse the success of those activities. With 1.04 billion daily active users of Facebook alone (Facebook newsroom, 2016), the social network is a valuable medium to reach consumers, as well as an invaluable source of behavioural data. Increasingly, marketing metrics incorporate analytics enabling marketers to better evaluate

the success of their marketing initiatives on social platforms and to plan effective strategies. As examples, Salesforce's (2016) Predictive intelligence method explores consumers' behavioural history to reveal preferences, purchase habits, and to inform personalised marketing across marketing channels; and Facebook offers 'insights' (Facebook, 2016) to managers seeking to explore their page metrics. Using such data, managers seeking to enhance customer engagement can identify which of their previous posts was most effective. Managers can also identify audience behaviour, lifestyle, and purchase information, to develop further marketing campaigns.

How does our study support these insights? We elicited the attitudes of consumers who 'Like' a brand on Facebook. These consumers are therefore known as fans of that brand's page. As 'Likes' are an important metric for brands (Facebook, 2016), our study provides new insights by investigating the extent to which 'Likes' are self-congruent. Our findings have several managerial implications.

We identify a relationship between consumers' perceptions about their social network structure and the extent to which their 'Liked' brands are self-congruent. We reveal that attitudinally homophilous relationships are positively related with social tie strength, which in turn positively influence perceived self-congruence with a 'Liked' brand. Brand managers seeking to use fans' Facebook data to understand consumer brand relationships should consider how the network structure influences those individuals' use of the brand on Facebook. We advocate using marketing analytics to consider segmenting fans of a brand's page according to their tie strength, as consumers with stronger social ties are more likely to perceive greater self-congruence with a 'Liked' brand. By contrast, consumers that have weaker social ties may perceive less self-congruence with a 'Liked' brand.

Our study reveals significant relationships between self-congruent 'Likes' and brand outcomes. Findings show that those consumers who perceive greater self-congruence with a 'Liked' brand have greater brand love for that brand. Batra *et al.* (2012) advocate that marketing communications could emphasise intrinsic benefits over extrinsic benefits to foster brand love. This insight may also inform the way brands are marketed on Facebook. To enhance brand love, managers should appeal to consumers using the intrinsic components of brands, to encourage a perception of greater self-congruence with a 'Liked' brand.

Managers seeking to attract new customers may also value network data to identify sources of positive WOM from their Facebook fans. Although the literature suggests weaker ties have greater influence on WOM (Brown and Reingen, 1987), we find that social tie

strength is associated with greater self-congruence with a ‘Liked’ brand, which in turn is positively associated with WOM. Therefore, there are opportunities presented by Facebook for managers seeking to encourage WOM from brand fans. Marketing analytics could explore the relationship between tie strength, brand ‘Likes’ and WOM for ‘Liked’ brands. Networks with stronger social ties may spread greater WOM for brands, because those fans are more likely to perceive greater self-congruence with a ‘Liked’ brand.

Furthermore, while extant analytics can estimate consumers’ future purchase intention from consumer data (for example Salesforce, 2016), our study provides new insights which inform managers’ understanding of loyalty. We found consumers expressed brand loyalty for ‘Liked’ brands only when they also had brand love for those brands. We suggest analysis of consumers’ purchase intention from Facebook data could also measure the brand love the consumer has with the brand. We suggest managers might consider proxy measures of ‘love’, drawing on Batra et al.’s (2012) conceptualisation, to explore the existence of brand love among their fans. For example an analysis of the valence of consumer comments may suggest positive affect such as the length of consumer comments may imply their willingness to invest in the brand, consumers’ use of emoticons and punctuation may suggest excitement, or their use of words may suggest passion for the brand. An aggregation of these measures may provide insights about the level of brand love experienced by fans. By incorporating such measures to estimate consumers’ brand love, brand loyalty for ‘Liked’ brands may be more accurately predicted.

5.3 Limitations and future research

Our framework and analysis have several limitations. First, we base our propositions on consumers’ assessments of their own network homophily and social tie strength. Although it would have been interesting to have objective measures of students’ actual Facebook network structures, ethical considerations concerning the use of Facebook networks did not permit access such data. However, extant literature provides reassurance for our approach. As Marsden (1990) noted, measures of social relations should vary according to the dependent variables to be interpreted in light of the network data. Eliciting perceptions of network structure is appropriate for studies of social influence on behaviour or opinions (Marsden, 1990). Therefore, the ‘cognitive structure’ approach adopted in this study, by capturing perceptions of homophily and social tie strength, is suitable. Furthermore, our study adopts long-established and well-tested measures of homophily and social tie strength (Granovetter,

1973). The measures performed well, with good reliability and dimensionality, providing further reassurance.

Second, emergent research on network structure reveals the existence of a ‘majority illusion’ (Lerman *et al.*, 2015), where individuals lacking global knowledge of behaviours of others estimate them from their friends’ behaviours and over-estimate the prevalence of the behaviours of those who have a greater number of connections on the network than they have. This ‘majority illusion’ suggests consumers with fewer connections on Facebook may infer global preferences from friends who are more connected on the same network, but who may, in fact, be in the minority. Therefore, the ‘majority illusion’ has relevance to studies of perceptions of attitude homophily. As we acknowledge above, we did not have information about the topology of the Facebook social network, and we were therefore unable to consider the influence of a majority illusion. Given its relevance to the acceptance or diffusion of ideas in social networks (Lerman *et al.*, 2015), we suggest future research into attitude homophily consider the ‘majority illusion’, by also exploring the degree distribution of the network and its influence on the observations of others.

Third, our study is based among a student population in Ireland. We note the brands ‘Liked’ may have been influenced by proximity to other students and influenced by the student reference group. We also note Hollenbeck and Kaikati’s (2012) assertion that situational context influences self-expression motives on Facebook. We accept the college student is in a unique situational context, which will inform their self-expression motives. Although we explain that a student population has greater relevance for a study of Facebook ‘Likes’ than perhaps other brand activities, there may be further insights to be gained by replicating this study with other consumer groups, or in other countries. Such findings could enhance the generalizability of our study. We also note consideration of a respondent’s primary and secondary groups was outside the scope of this research and we advocate that consideration of these groups may inform our findings in further study. Further research could also explore the applicability of our model to different groups, such as student/non-student groups, or groups with characteristics that lead them to have higher self-congruence or lower self-congruence, to further explore the application of our model among different Facebook users.

Fourth, other variables that have informed studies on self-congruence and product/brand evaluation have included self-monitoring (e.g., Hogg *et al.*, 2000), self-esteem (e.g., Malär *et al.*, 2011) and self-enhancement motives (e.g., Aguirre-Rodriguez *et al.*, 2012). Further

research could investigate whether these additional variables inform the relationship between the Facebook social network and self-congruence with a ‘Liked’ brand, and the relationship between ‘Likes’ and brand outcomes.

Fifth, our measures of brand outcomes are based on extant measures that are more commonly used for relationships with brands in the offline environment (e.g. Carroll and Ahuvia, 2006; Yoo *et al.*, 2000). Nevertheless, even in an online environment where consumers are occasionally maligned for ‘Liking’ brands for self-expressive reasons without any real emotional connection, we find positive outcomes for brand love, brand loyalty and WOM, when the perceived self-congruence with a ‘Liked’ brand is higher. Perhaps the virtual self is not so divergent from the actual self, after all.

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< Appendix >

Table 1. Profile of survey respondents (demographics and Facebook use)

Category	N = 438*
Gender	63.2% = Female 36.8% = Male
Age	Mean = 21.2 years SD = 4.088
Nationality	93.1% = Irish 6.9% = Other
Level of education	87.7% = Undergraduate Student 7.8% = Masters student 3.7% = Doctoral student
Has a Facebook account, accessed in past month	100% = "Yes"
'Likes' a brand on Facebook	100% = "Yes"
Product categories of 'Liked' brands on Facebook	34% Fashion 20% Haircare and cosmetics 20% Music 19% Food and Tea/Coffee 18% Sport 17% Alcohol 13% Sportswear
Number of Facebook friends	Mean = 472 friends SD = 243
How long do they spend on Facebook on a typical day?	Mean = 2.4 hours SD = 1.6

Note: * Due to rounding, some figures do not add to 100%. SD = Standard deviation from the mean.

Table 2. Scale items and measurement model results

Constructs and scale items	Range of standardised factor loading	CR	AVE
Attitude homophily		.891	.733
Are mainly like me	.89		
Are quite similar to me	.92		
Think like me	.74		
Behave like me ^a	-		
Status homophily		.826	.544
Have the same social status as me	.70		
Are from the same social class as me	.83		
Are culturally similar to me	.68		
Have an economic situation like mine	.72		
Social tie strength		.864	.615
Are people I interact with every day	.68		
Are true friends, rather than acquaintances	.88		
Are people I like to spend time with away from Facebook	.81		
Are so close to me it is hard to imagine life without them	.76		
Self-congruence with a ‘Liked’ brand		.779	.649
Actual self-congruence index	.61		
Ideal self-congruence index	.96		
Brand love		.936	.646
This is a wonderful brand	.77		
This brand makes me feel good	.75		
This brand is fantastic	.80		
I have neutral feelings about this brand ^{ab}	-		
This brand makes me very happy	.82		
I love this brand!	.85		
I have no particular feelings about this brand ^{ab}	-		
This brand is a pure delight	.83		
I am passionate about this brand	.82		
I am very attached to this brand	.80		
Brand loyalty		.826	.618
I consider myself to be loyal to this brand	.87		
This brand would be my first choice when considering this type of product	.85		
I will not buy other brands of this type of product if this brand is available at the store	.61		
Worth of mouth		.856	.545
I click ‘Like’ on Facebook for this brand in order to “talk up” this brand to my friends	.83		
I click ‘Like’ on Facebook for this brand as it enhances my Facebook profile	.66		
I click ‘Like’ on Facebook for this brand to spread the good word about this brand	.77		
I give this brand a lot of positive word of mouth online	.75		
I recommend this brand to friends and family on Facebook	.68		
Fit indices			
S-B $\chi^2=770.51$ (356) $p<0.001$ NNFI = 0.926 CFI = 0.935 IFI = 0.935 RMSEA = 0.052			

Note: ^a Items deleted in the validation process; ^b Reverse-coded items.

Table 3. Descriptive statistics and correlations

Constructs	Mean	SD	1	2	3	4	5	6	7
1. Attitude homophily ^a	3.74	1.35	.733						
2. Status homophily ^a	4.31	1.29	.165	.544					
3. Social tie strength ^a	3.37	1.39	.326	.092	.615				
4. Self-congruence ^c	-1.17	.48	.018	.001	.011	.649			
5. Brand love ^b	3.61	.84	.004	.000	.013	.027	.646		
6. Brand loyalty ^a	4.59	1.53	.013	.000	.012	.032	.501	.618	
7. Worth of mouth ^b	2.51	.97	.005	.000	.018	.047	.276	.189	.545

Note: ^a 7-point scale; ^b 5-point scale; ^c Scale ranging from -4 to 0. Means and standard deviations (SD) are based on summated scale averages. Items deleted in the validation process are not included. Squared correlations are below the diagonal and AVE estimates are presented on the diagonal.

Table 4. Structural model results

Hypotheses	Standardised β (t)	Hypothesis verification
H1a Attitude homophily \rightarrow Social tie strength	.538** (8.58)	Yes
H1b Status homophily \rightarrow Social tie strength	.084 (1.58)	No
H2 Social tie strength \rightarrow Self-congruence	.127** (2.09)	Yes
H3 Self-congruence \rightarrow Brand loyalty	.070 (1.54)	No
H4 Self-congruence \rightarrow Brand love	.162** (2.57)	Yes
H5 Self-congruence \rightarrow Word of mouth	.155** (3.22)	Yes
H6 Brand love \rightarrow Brand loyalty	.699** (13.80)	Yes
H7 Brand love \rightarrow Word of mouth	.503** (8.48)	Yes

Fit Indices:

S-B $\chi^2 = 784.72$ (368) $p < 0.001$; NNFI = 0.928; CFI = 0.935; IFI = 0.935; RMSEA = 0.051

Note: ** $p < 0.05$

Table 5. Total, direct and indirect effects of self-congruence on brand loyalty and WOM

	Total effect	Direct effect	Indirect effect	
	Coefficient (t-value)	Coefficient (t-value)	Point Estimate	Bias-Corrected and Accelerated 95% Confidence interval (Lower, Upper)
Model 1: Brand loyalty as dependent variable	.377** (2.50)	.168 (1.41)	.208	0.002; 0.435
Model 2: WOM as dependent variable	.387** (4.09)	.288** (3.41)	.098	0.002; 0.209

Appendix I: Geuens *et al.*'s brand personality measure

Brand personality dimensions	Brand personality items
Responsibility	Down to earth Stable Responsible
Activity	Active Dynamic Innovative
Aggressiveness	Aggressive Bold
Simplicity	Ordinary Simple
Emotionality	Romantic Sentimental