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### Brand content diffusion on Social Networking Sites: Exploring the triadic relationship between the brand, the individual, and the community

Trostli de Araújo Costa, T.B.

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CHAPTER 3

# The influence of personality

## Chapter 3: The influence of personality

This chapter has been submitted as:

Araujo, T., Neijens, P.C., & Vliegenthart, R. Helping others (and boosting my own image): How the Big Five and Need for Popularity influence brand content diffusion on Facebook and Twitter.

The version presented here has been adapted to follow the overall standards and terminology included in the other chapters of the dissertation.

**ABSTRACT**

Users of Social Networking Sites (SNSs) frequently engage in brand-related activities, including passing along brand messages to friends via retweets on Twitter and sharing on Facebook. The present study investigates how the Big Five personality traits and Need for Popularity are associated with passing along brand messages on Facebook and Twitter. Results from a survey of 410 SNS users show that this behavior is more prevalent among people with higher scores for Agreeableness, Extraversion and Need for Popularity. This suggests a strong linkage between passing along brand messages and the desire for social exchange, as well as image management. Moreover, the results indicate that extroverts prefer to share brand messages on Facebook, while people with higher scores for Conscientiousness are more likely to retweet brand messages on Twitter.

## The influence of personality

Users of Social Networking Sites (SNSs) frequently engage in brand-related activities (Muntinga et al., 2011), such as discussing their favorite brands (Jansen et al., 2009) and “liking” (de Vries, Gensler, & Leeﬂang, 2012) or passing along (Araujo et al., 2015) messages created by brands on Facebook and Twitter. Twitter users, for example, frequently mentions brands on their messages (Jansen et al., 2009; Nagy & Midha, 2014), and follow five brands or more on average (Schreiner, 2013). Passing along brand messages via retweets (on Twitter) or sharing (on Facebook) is advantageous for brands, as SNS users forward these messages to friends or contacts on the SNS, thus exposing them to new audiences (comScore, 2011).

Research has begun to explore this process, mainly from a brand perspective, by addressing how to maximize pass-along behavior. For example, earlier studies have shown that message characteristics influence the likelihood of a brand message being retweeted on Twitter (Araujo et al., 2015) or liked on Facebook (de Vries et al., 2012). Moreover, research focusing on general content (Bakshy et al., 2011, 2012; Suh et al., 2010) and brand messages (Araujo, Neijens, & Vliegenthart, forthcoming) has also explored the role of network characteristics and influences on information diffusion.

Less attention, however, has been paid to the user’s perspective. We know, for example, that SNS users who pass along

brand messages on Twitter rank higher on brand identification and brand trust than other consumers (Kim et al., 2014). Nevertheless, there has been little research on how personality characteristics are associated with the decision to pass along brand messages on SNSs. This is a particularly pressing gap in the literature, as much discussion is taking place on the question of how brands can make use of SNSs to expand the reach of their messages (e.g. Araujo et al., 2015; Liu, Liu, & Li, 2012; Suh et al., 2010). Yet, if little is known about the personality characteristics that are associated with the decision to endorse publicly a message that has been written by a brand, and to pass that message along to friends or contacts, this question cannot be answered convincingly.

Our study aims to fill this gap in the literature by investigating the relationship between personality characteristics and the decision to pass along brand messages. Understanding this relationship not only advances marketing communication research, but it also sheds light on the psychological aspects of a process in which SNS users frequently engage, yet that has hardly been investigated in academic research. Moreover, our study contributes to the emerging literature on how personality characteristics are associated with different uses of Facebook and Twitter (e.g. Davenport, Bergman, Bergman, & Fearington, 2014; Hughes, Rowe, Batey, & Lee, 2012; Panek, Nardis, & Konrath, 2013; Petrocchi, Asnaani, Martinez, Nadkarni, & Hofmann, 2014; Smith, Fischer, & Yongjian, 2012). Within this line of research, few studies have covered how brand-related activity differs between the two SNSs. Furthermore, the emphasis has been on user-generated content (Smith et al., 2012). We develop this research by exploring the relationship between personality characteristics and

having a preference for using either Facebook or Twitter to pass along messages produced by brands.

### **THEORETICAL BACKGROUND**

Personality characteristics are defined in social psychology research as relatively stable dispositions that influence a multitude of social behaviors (Ajzen, 1987). These characteristics can be viewed as a system through which the “individual selects, construes, and processes social information and generates social behavior” (Mischel & Shoda, 1995, p. 246), with some studies going so far as to suggest that they influence social relationships, but not the other way round (Asendorpf & Wilpers, 1998).

In line with this, previous research indicates that given the strongly social nature of the Internet, personality characteristics partially determine online behavior (Amichai-Hamburger, 2002). A range of personality characteristics has been used to explore behavior on the Internet in general (Amichai-Hamburger, 2002; Mark & Ganzach, 2014), on online games (Park, Song, & Teng, 2011) and, in particular, on SNSs (Amichai-Hamburger & Vinitzky, 2010; Hughes et al., 2012; Ryan & Xenos, 2011; Utz et al., 2012).

Of all personality characteristics, the Big Five (Agreeableness, Conscientiousness, Extraversion, Openness to Experience and Neuroticism), also known as the Five Factor Model, have been extensively investigated as predictors of a broad range of SNS-related behavior (Amichai-Hamburger & Vinitzky, 2010; Hollenbaugh & Ferris, 2014; Hughes et al., 2012; Ross et al., 2009; Ryan & Xenos, 2011; Utz et al., 2012; J.-L. Wang, Jackson, Zhang, & Su, 2012). Studies exploring the influence of the Big Five have, for example,

investigated how often people use SNSs, the types of features they use the most, and how much they disclose about themselves.

This emphasis on the Big Five may be attributed to the encompassing nature of these characteristics and their strong influence on how individuals establish social relationships and perceive the external world (Costa & McCrae, 1992). However, the focus on the Big Five has also been criticized from a theoretical perspective (Block, 2010), as well as with regard to whether it is able to explain fully all types of SNS-related behavior. Recent research suggests that Need for Popularity (NfP) (Christofides, Muise, & Desmarais, 2009; Utz et al., 2012) is also strongly associated with self-disclosure and other SNS-related behavior. In addition to the Big Five, we therefore also explore how NfP is associated with passing along brand messages on SNSs.

### **GENERAL MOTIVATIONS FOR PASSING ALONG BRAND MESSAGES**

Existing studies on electronic word-of-mouth communication (eWOM) suggest that the desire to engage with and help others (e.g. Bronner & de Hoog, 2010; Hennig-Thurau, Gwinner, Walsh, & Gremler, 2004) is one of the key motivations for engaging in brand-related activities online. Research also highlights social enhancement as an important motivation for eWOM (Okazaki, 2009), as well as the notion of articulating one's own idealized self on the SNS by engaging in brand-related activities (Hollenbeck & Kaikati, 2012). Although this line of research tends to focus on the reasons why people talk about brands online, we would expect that similar motivations would also be relevant for passing along messages from brands. In view of these motivations, we would expect Agreeableness, Extraversion and NfP

to be associated with the decision to pass along brand messages on SNSs, and that they would have the same type of influence on Facebook and on Twitter.

People with high scores for Agreeableness are associated with higher levels of friendliness and warmth towards others (Costa & McCrae, 1992). Unsurprisingly, this personality trait has been found to influence social behavior on SNSs, in particular with regard to commenting on posts by others (J.-L. Wang et al., 2012) and sharing experiences on Facebook (S. S. Wang, 2013). We would expect people with higher levels of Agreeableness to pass along brand messages because of their strong desire to help others (friends or the brand itself), and thus propose the following hypothesis:

H1: SNS users with higher levels of Agreeableness will be more likely to pass along brand content.

Extraverts have been found to be more sociable and open, and enjoy social exchange with others (Costa & McCrae, 1992). Extraversion has been associated with higher number of friends on Facebook (Amichai-Hamburger & Vinitzky, 2010), the usage of Facebook to socialize (Ryan & Xenos, 2011), share personal experiences (S. S. Wang, 2013) and search for information (Hughes et al., 2012). Considering that passing along brand messages may be related to the same desire for social exchange, we propose the following hypothesis:

H2: SNS users with higher levels of Extraversion will be more likely to pass along brand content.

NfP has been found to be strongly associated with self-disclosure on Facebook (Christofides et al., 2009), and to be a strong predictor of profile enhancement, the adoption of self-presentation strategies and the disclosure of feelings on SNSs (Utz et al., 2012).

Earlier research also indicates that online gossipers, who tend to focus on their own status or fame, are more willing to engage in eWOM on SNSs (Okazaki, Rubio, & Campo, 2013). Considering that passing along brand messages may also be associated with self-presentation and social enhancement on SNSs, we propose the following hypothesis:

H3: SNS users with higher levels of NfP will be more likely to pass along brand content.

The Big Five covers three additional traits: Conscientiousness, Neuroticism and Openness to Experience. Conscientiousness, associated with being thorough, orderly and having a high level of self-discipline (Costa & McCrae, 1992), has been related to the use of Twitter for informational or practical purposes (Hughes et al., 2012). People who score higher on Neuroticism tend to worry and have a low level of emotional stability (Costa & McCrae, 1992), and have been associated with using the Internet (Amichai-Hamburger & Ben-Artzi, 2003) and Facebook (Hughes et al., 2012; Ryan & Xenos, 2011) to overcome loneliness and to socialize. Openness to Experience, associated with interest in new ideas and curiosity in general (Costa & McCrae, 1992), has been found to be a predictor of Facebook use for both social (Amichai-Hamburger & Vinitzky, 2010; Hollenbaugh & Ferris, 2014) and informational reasons (Hughes et al., 2012), and also for engaging in a wide range of SNS-related activities (Gosling, Augustine, Vazire, Holtzman, & Gaddis, 2011; Utz et al., 2012). We will not propose hypotheses for these three factors, as they are not clearly related to the reasons proposed above for passing along brand messages. However, in view of the exploratory nature of this study, we will test empirically whether they are associated with passing along brand content.

### **SNS PREFERENCES**

Finally, in view of key differences between the two SNSs, we would expect certain users to prefer to pass along brand content on Facebook and others to prefer Twitter. Most notably, Twitter activities are usually public (unless the user decides to make their profile private), while Facebook has stricter privacy settings by default. Whilst Twitter allows for pseudonyms on user profiles, Facebook requires the use of real names. Facebook friendships require both users to approve the relationship, whereas the following/follower relationship on Twitter does not. This preference might be influenced by personality characteristics, which we will investigate with the following research question:

*RQ:* Which personality characteristics are associated with a SNS user's preference for using either Twitter or Facebook to pass along brand messages?

## **METHODS**

### **PARTICIPANTS**

A panel research company coordinated the data collection for the study, with panel members based in the United States that were active on Twitter and/or Facebook in December 2014. Complete responses were provided by a total of 410 participants, each with an account on Twitter and/or on Facebook. The mean age of the participants was 39.07 years ( $SD = 13.95$ ) and 51% of them were female, thereby meeting quotas for gender and age groups aligned with the Twitter user base in the US (Duggan & Smith, 2014).

## **PROCEDURE**

The participants completed an online questionnaire that included questions about their Facebook and Twitter usage, as well as personality characteristics. The participants then read two fictitious brand messages. They were asked to imagine that the messages had been written by their favorite brands, and to indicate whether they would share the messages on Facebook and retweet them on Twitter.

## **MEASURES**

The dependent variables for this study were the extent to which the respondent agreed with the statements that he or she would (a) retweet the message on Twitter and (b) share it on Facebook. Participants answered the questions using a 7-point scale, ranging from “Strongly Disagree” to “Strongly Agree”. To evaluate whether personality characteristics are associated with a preference for a particular SNS to pass along brand messages, we created a third dependent variable – SNS preference – by subtracting the answer for “sharing on Facebook” from the answer for “retweeting on Twitter”. This third variable allows us to understand which SNS the user would be more likely to use to pass along the brand message, with positive values indicating a preference for Facebook and negative values for Twitter.

The independent variables were the abovementioned personality characteristics. The Big Five personality traits were measured using the Mini-IPIP 20-item questionnaire (Donnellan, Oswald, Baird, & Lucas, 2006), measured on a 5-point scale (all  $\alpha$ 's > .66). NfP was measured using a 12-item questionnaire (Santor,

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Messervey, & Kusumakar, 2000) on a 7-point scale ( $\alpha = .96$ ). We included age (measured in years) and gender as control variables, in line with findings from earlier research (Amichai-Hamburger & Vinitzky, 2010; Hollenbaugh & Ferris, 2014). Table 1 shows the descriptive statistics for all dependent and independent variables, as well as their correlations.

### **ANALYSIS**

We explored the extent to which the Big Five and NfP are associated with the decision to share or retweet brand content using Ordinary Least Squares regression models. We first built individual models for sharing brand messages on Facebook and retweeting brand messages on Twitter, and then created a third model that evaluates the preference for one SNS over the other, with the score for “sharing on Facebook” subtracted from the score for “retweeting on Twitter”.

### **RESULTS**

Agreeableness, Extraversion and NfP have a positive association with both sharing brand messages on Facebook and retweeting these messages on Twitter, as indicated in Table 2. This provides support for hypotheses 1, 2 and 3. Of all these traits, NfP has the strongest association with both sharing and retweeting brand messages, in view of the standardized regression results.

From the remaining Big Five personality traits, Neuroticism has a negative relationship with retweeting on Twitter, but it is not significantly associated with sharing brand messages on Facebook. Openness to Experience has a negative association with both sharing

and retweeting brand content, and Conscientiousness has a positive association with retweeting.

When it comes to comparing how personality characteristics might influence someone's preference for a particular SNS, the results indicate that people with high scores for Conscientiousness are more likely to prefer retweeting on Twitter to sharing on Facebook, while extraverts prefer sharing over retweeting. The other personality traits did not show any significant association with an SNS preference.

### **DISCUSSION**

Our study aimed to explore how internal factors such as personality characteristics are associated with brand content diffusion by SNS users on Twitter and on Facebook. Using responses from 410 active SNS users, we tested how the Big Five personality traits and NfP influence the likelihood of passing along brand messages on Twitter and on Facebook. In addition, we investigated which personality traits might influence a person's preference for a particular SNS. Our results not only extend the findings of previous studies on the usage and production of user-generated information on SNSs in relation to passing along information produced by brands, but they also extend this research in several ways.

Table 1

Descriptive Statistics and Correlations<sup>a</sup>

Variables	M	SD	1	2	3	4	5	6	7	8	9	10
1. Agreeableness	3.82	.80										
2. Conscientiousness	3.59	.85	.28**									
3. Extraversion	3.05	.98	.40**	.24**								
4. Neuroticism	2.58	.88	-.22**	-.40**	-.36**							
5. Openness	3.82	.88	.46**	.31**	.30**	-.33**						
6. NFP	2.92	1.51	-.28**	-.28**	.02	.30**	-.48**					
7. Age	39.07	13.95	.19**	.26**	.01	-.14**	.07	-.29**				
8. Gender (Female)	51%		.24**	.04**	.01	.07*	.07*	-.21**	.20**			
9. Sharing (Facebook)	3.83	2.09	.09*	.01	.23**	-.03	-.11**	.32**	-.09**	-.09**		
10. Retweeting (Twitter)	3.71	2.08	.07*	.03	.21**	-.05	-.13**	.35**	-.13**	-.10**	.88**	
11. SNS Preference (Facebook over Twitter)	.12	1.01	.03	-.05	.05	.02	.03	-.05	.07*	.02	.26**	-.23**

<sup>a</sup>N = 820 (each of the participants evaluated two messages). \* p < 0.05, \*\* p < 0.01

Table 2  
Standardized Regression Results <sup>a</sup>

Variables	Sharing on Facebook			Retweeting on Twitter			SNS Preference (Facebook over Twitter)		
	B	SE B	$\beta$	B	SE B	$\beta$	B	SE B	$\beta$
Agreeableness	0.39	0.10	0.15**	0.40	0.10	0.15**	-0.01	0.05	-0.01
Conscientiousness	0.09	0.09	0.04	0.21	0.09	0.08*	-0.11	0.05	-0.09*
Extraversion	0.37	0.08	0.17**	0.28	0.08	0.13**	0.09	0.04	0.09*
Neuroticism	-0.13	0.09	-0.06	-0.20	0.09	-0.09*	0.07	0.05	0.06
Openness	-0.25	0.1	-0.11*	-0.28	0.10	-0.12**	0.03	0.05	0.03
NFP	0.44	0.06	0.31**	0.48	0.06	0.35**	-0.05	0.03	-0.07
Age	-0.01	0.01	-0.03	-0.01	0.01	-0.08*	0.01	0.00	0.08*
Gender (female)	-0.21	0.14	-0.05	-0.18	0.14	-0.04	-0.03	0.08	-0.02
Constant	1.20	0.68		1.30	0.67		-0.10	0.36	
Adj. R <sup>2</sup>		0.17			0.19			0.01	

<sup>a</sup>N = 820 (each of the participants evaluated two messages). \* p < 0.05, \*\* p < 0.01

One key finding is that of the Big Five personality traits, Agreeableness and Extraversion are positively related to sharing brand content on Facebook and retweeting brand content on Twitter. This finding provides evidence for the idea that passing along brand content is related to a desire to engage with others and to help them. Moreover, these results validate earlier research that indicates that people with higher scores for Agreeableness are more likely to engage in conversations and share more personal information (S. S. Wang, 2013) on Facebook. Along the same lines, earlier research has also found that extraverts are likely to use Facebook for informational purposes (Hughes et al., 2012), a factor that may also influence the decision to pass along brand content.

NfP was positively associated with both sharing and retweeting brand content, which not only validates the relevance of this trait for Facebook usage (Christofides et al., 2009), but also indicates that NfP is relevant for Twitter as well. Moreover, NfP had the strongest direct effect on both sharing and retweeting brand content, a finding that reinforces the idea that this trait is a strong predictor for SNS-related behavior (Utz et al., 2012). The respondents that exhibited the greatest desire to be popular were also more likely to share or retweet brand content. This provides evidence for the idea that passing along brand messages on Twitter and on Facebook may not just be related to the desire to socialize or help others, but that it is also strongly linked to image management and social enhancement, which reinforces findings from earlier research regarding eWOM *about* brands (e.g. Okazaki, 2009).

We also tested how Neuroticism, Openness to Experience and Conscientiousness were associated with sharing and retweeting. One important finding is that Neuroticism is related to retweeting, but

not to sharing. People with lower levels of Neuroticism are more likely to retweet brand messages, which suggests that only people with higher levels of emotional stability feel comfortable retweeting brand content in a public manner, as is the case on Twitter. On Facebook, where privacy settings are somewhat stricter and people have to approve the members of their network, this seems to be a less relevant issue. Conscientiousness is also associated with retweeting.

Considering that people with higher scores for this trait use Twitter for informational purposes (Hughes et al., 2012), this may indicate that retweeting brand content is also associated with the desire to inform others.

Interestingly, Openness to Experience is negatively associated with passing along brand content. This is unexpected, considering that people scoring higher for Openness to Experience are associated with being interested in new ideas or experiences and curiosity in general. One could speculate that this finding may indicate that passing along brand content is an activity preferred by people who are less willing to adopt new ideas and who may thus associate themselves with brand content in order to reinforce their own point of view. This finding should be further investigated by future research.

Finally, we tested which personality characteristics might be associated with the decision to use one SNS rather than the other to pass along brand messages. Only Extraversion and Conscientiousness were found to have significant effects in this case. The findings indicate that extraverts prefer Facebook for sharing brand content, whilst people that score higher on Conscientiousness prefer Twitter. These findings provide further insight into the differences in SNS usage: people with a higher desire for social exchange prefer to share

brand content on Facebook, while people who are more self-disciplined and results-oriented prefer Twitter.

Although this study has extended the existing literature on communication and the use of SNSs by exploring how personality characteristics are associated with brand content diffusion on Twitter and on Facebook, it is not without its limitations. First, while this study explores the relationship between passing along brand messages and personality characteristics, further research should explore the motivations for sharing or retweeting brand content. Second, although this study used a sample of active SNS-users with ages and gender in line with the Twitter user base, and therefore overcame some of the concerns associated with the use of student samples, we should note that what was measured was the intention to share or to retweet fictitious messages. Future studies could combine an investigation of personality characteristics with observational data on SNS usage by the respondents, to measure whether they had shared or retweeted actual brand messages. Finally, the model for SNS preference had an overall low explained variance; future studies should thus continue to research the topic in order to expand these findings. Notwithstanding these limitations, this study provides a strong set of findings on how personality characteristics are associated with sharing and retweeting brand content, and lays the foundations for future studies to continue to explore a phenomenon that is not only important for brands, but also for SNS users themselves.