

To What Extent Does Personality Influence the Use of Facebook – A Case from Turkey

Yaman Köseoğlu

Lecturer; Faculty of Arts and Sciences, Bahçeşehir University, İstanbul, Turkey

e-mail : yaman.koseoglu@sfl.bau.edu.tr

Abstract

The relationship between the personality and the use of Facebook to satisfy the needs of belonging and self-presentation are examined in the current study. 214 university students completed the Big Five personality traits questionnaire and a survey assessing personality and Facebook behaviors and motivations. Belongingness-related behaviors and motivations were predicted best by high agreeableness and neuroticism. Extraversion was associated with more frequent use of Facebook to communicate with others. Low conscientiousness and high neuroticism predicted best by self-presentational behaviors and motivations. Results suggested that conscientious individuals were cautious in their online self-presentation. Neuroticism, agreeableness, and extraversion were positively associated with the tendency to express one's actual self. Neuroticism was positively associated with the expression of ideal and hidden self-aspects. The motivation to express these self-aspects mediated the relationship between neuroticism and self-disclosure.

Keywords: Social networking site, Facebook, the Big Five, Need to belong, Need for self-presentation

1. Introduction

The Internet is a technology that has touched all facets of the world profoundly. It is, on the other hand, probably the latest in a series of technological advances, each with its own "sphere of influence". In order to gauge its effect, it is illuminating to review how people reacted to some of the earlier breakthroughs.

"Each new technological advance in communications of the past 200 years – the telegraph, telephone, radio, motion pictures, television and, most recently the internet- was met with concerns about its potential to weaken community ties" (Katz, Rice, & Aspden, 2001). For example, the telegraph, by eliminating distance as an obstacle to communication between individuals, had an overwhelming effect on life in the nineteenth century – the concept that no message could travel faster than a human being changed due to Morse's telegraph. Suddenly messages could be sent over great distances and received in just minutes. People could learn of events in distant parts of the world within hours or days instead of weeks or months. "At the same time, governments feared the potential of such immediate communication between individual citizens. Tsar Nicolas I of Russia, for example, banned the telegraph as an instrument of subversion.....Thomas Edison proposed to his wife Mina over the telegraph" (Spar, 2001). Following the telegraph, the telephone raised the suspicion that it would damage the family, hurt relationships and isolate people since talking to others for hours became the norm. The next breakthrough, radio, was met with similar "alacrity" - its broadcasting capability of reaching thousand, even millions of people was a frightening prospect for governments of the time. (Bargh & McKenna, 2004). But television had the greatest impact of fear on community life, because individuals and families could stay at home for their entertainment instead of going to the theater or participating at a social club. This adverse effect of television viewing has been the basis for contemporary worries that the internet use might displace time formerly spent with family and friends.

For the first time in history, the Internet combines many of these breakthroughs in a single communication medium. Like telegraph and telephone, it can be used for person-to-person communication. Like radio and television, it can operate as a mass medium. It can also serve as a global library. The Internet can be shaped into serving the user's current needs and purposes. By providing an alternative to the usual face-to-face interactions, it undermined various aspects of social life such as interpersonal interactions, relationships in the workplace, personal relationships, group memberships and participations in the social support communities (Lau, 2017; Young, 1998).

Face-to-face relationships have been replaced by one of the most striking innovations in communicating on the Internet - the social networking websites (SNS) which allow for the construction of a public or semi-public profile, the identification of a list of other users with whom a connection is shared, the ability to view and track individual connections as well as those made by others (Nadkarni & Hofmann, 2012). Among the SNS's, Facebook (FB) is undoubtedly the most well-known of the SNS's with close to 1 billion users (Facebook, 2017), because it is able to fulfill successfully at least two of the basic psychological needs of its users, the need to belong and the need for self-presentation, but mostly at the expense of time formerly spent with family and friends and, as such, is met with concerns about its potential to disrupt traditional community ties (Leung, 2013).

Like other SNS's, FB demands users to create profiles by entering the user's name, gender, date of birth and an e-mail address. Needless to say, anything else posted beyond these would be at the discretion of the user. Features that facilitate interaction include the friends list, the wall, pokes, status, events, photos, video, messages, chat, groups and like. Firstly, the "friends list" is a crucial component of FB because it allows the end user to create a public display of links to their connections which viewers can click through. The next item, "wall" is a name given to the FB feature that functions as a bulletin board and permits other users to post personal messages for the end-user. Furthermore, the "pokes" allows users to offer initial greetings to other users. In addition, the "status" feature allows users to inform their friends about changes or activities. The "events" enables users to plan meetings or events that they can extend invitations for. By clicking on the "photos" or "videos", the user may upload photos, videos or albums for others to comment on. Communication with friends can be established either through "messages", which can be private or public, and/or through a "chat" feature. For those users who are interested in launching an interest group or joining one, the "groups" feature is available. For providing positive feedback about a preferred content, the "like" feature may be employed.

Features of FB such as demographic characteristics of users, motivations for use, self-presentation, and social interactions have been investigated by social scientists (Wilson, Gosling, & Graham, 2012). Some of these investigations have focused on the relationship between personality and FB use (Amichai-Hamburger & Vinitzky, 2010; Back et al., 2010; Allen, Ryan, Gray, McInerney, & Waters, 2014; Zhao, Grasmuck, & Martin, 2008; Barrat, Hendrickson, Stephens, & Torres, 2005). Among these approaches is a model introduced by Nadkarni & Hofmann (2012) which claimed that one of the major reasons behind FB's success of reaching a level of close to a billion users lies its fulfilling two of the fundamental psychological needs - belonging and self-presentation.

While fulfilling the need of belonging and the need of self-presentation, some users of FB may be quite forthcoming in their postings. On the other hand, the cloak of anonymity the Internet furnishes constitutes an excellent means for other users to portray themselves in multiple ways and deceive others. Social scientists have long believed that a sense of self evolves from the reactions others express in social interactions, which causes internalization of the social approval that the individual has received for his or her behavior (Manago, Graham, Greenfield, & Salimkhan, 2008). The individual, however, may consider himself or herself inadequate for being approved socially due to a low level of self efficacy (Bandura, 1997). Indeed, research has demonstrated that most adolescents often experiment with their online identities, with some pretending to be older and more mature, or with others assuming a completely different personality (Greenfield, Gross, Subrahmanyam, & Tynes, 2006). It is clear that the Internet, through social networking sites, offers an excellent premise for alternate selves to flourish. For example, Baumeister & Tice (1990) define hidden self-aspects as characteristics currently a part of the self but not normally displayed in everyday life and thus others are oblivious to those. Hence, individuals high in social anxiety may feel that they may express hidden self-aspects liberally on the internet. Markus & Nurius (1986) have proposed the term possible-selves or future selves for those elements of the self-concept that represent what individuals could become, would like to become or are afraid of becoming. Consequently, individuals may find on the Internet the opportunity to disclose their possible-selves without restrictions. In addition, Wilson & Ross (2001) claim that everyone strives to reach an "ideal self", which may also find representation readily online.

As has been pointed out above, one of the most striking innovations on the Internet has been the social networking websites (SNS) which allow for the construction of a public or semi-public profile motivated mostly by the need to belong and the need for self-presentation.

1.1. Limitations

There are limitations of the current study that should be addressed by future investigations. Firstly, as the results of the current study, and those similar to it, have been based on data derived exclusively from university

students, the prospect of generalizing these to portray a typical FB user is limited. Consequently, further studies are needed with more diverse age and gender groups to ascertain to what extent the findings of the study hold for those segments. In addition, since differences in motivations depend on the cultural settings (Kim, Sohn, & Choi, 2011; Jackson & Wang, 2013), the findings of the study should be validated in different contexts with different groups of SNS users. It may also be recommended that researchers compare personality characteristics of FB users with those of non-users in order to gauge the impact of belonging and self-presentation.

2. Belongingness and self-presentation

The need to belong is a fundamental drive to form and maintain relationships (Chen & Marcus, 2012; Baumeister & Leary, 1995) indicating that humans are highly dependent on the social support of others and exclusion from any social group produces adverse effects on their emotional well-being (Gosling, Augustine, Vazire, Holtzmann, & Gaddis, 2011; Baumeister & Leary, 1995). The adverse effects may be gauged by the overlapping indicators of self-worth and self-esteem (Baumeister & Leary, 1995; Bandura, 1997; Correa, Hinsley, & de Zuniga, 2010). Consequently, any decrease in either one of them may serve as a potential warning signal and may induce the individual to take steps to avoid rejection (Leary, 2007). The results from various studies were consistent with the notion that social acceptability, as measured by other users' "liking", was found to be a causal determinant of self-esteem (Denissen, Penke, Schmitt, & Van Aken, 2008; Srivastava & Beer, 2005). It is also a major motivator of FB use. The users fulfill their belonging needs by communicating with and learning about others and discerning what is "liked" and what is rejected. As it enables peer acceptance and relation development (Ryan & Xenos, 2011) and boosts self-esteem and self-worth (Leary, Tambor, Terdal, & Downs, 1995; Marshall, Lefringhausen, & Ferenczi, 2015; Cervone & Pervin, 2008), FB can be regarded as an effective tool for coping with feelings of social disconnection (Sheldon, Abad, & Hirsch, 2011).

Self-presentation is the second major motivation associated with FB use. By posting photographs, entering or updating profile information and wall content, the users fulfill this need (Ross, Orr, Sisic, Simmering, & Orr, 2009). Research has shown that narcissistic individuals, those who seek popularity, tend to disclose personal information on FB (Mehdizadeh, 2010; Vazire, Naumann, Rentfrow, & Gosling, 2008), engage in well-designed self-presentations (Kansi, 2003; Kraaykamp & van Eijck, 2005), and enhance their profiles (Weiser, 2015; Wang, Jackson, Wang, & Gaskin, 2015). As an online entity, FB leaves itself open to the possibility that its users display their idealized, rather than accurate selves through their profiles – meaning that the FB profiles appear to be socially desirable identities that users aspire to have offline but have not been able to bring to life for some reason (Zhao et al., 2008). Indeed, it is the need of impressing peers that induce users to portray a preferred self-image (Zhao et al., 2008; Peluchette & Karl, 2010). On the other hand, some studies have shown that self-presentations found in "profiles" generally turn out to be accurate (Qiu, Lu, Yang, Qu, & Zhu, 2015; Back et al., 2010; Gosling, Gaddis, & Vazire, 2007).

In general, these studies point out to the fact that FB profiles may reflect the users' public persona which appears to be formed and inspired by the need for self-presentation. Since the user wishes to establish a desired impression, specific behaviors such as choice of profile photos or the type of connections or the contents of the messages are guided by this need (Sung, Lee, Kim, & Choi, 2016).

3. Belongingness, self-presentation and the Big Five

There exists a consensus among researchers that personality can best be explained by the Five Factor model, also referred to as "the Big Five" (McCrae & Costa, 1995; McCrae & John, 1992; Ryan & Xenos, 2011; Amichai-Hamburger, Wainapel, & Fox, 2002; Anderson, Boyles, & Rainie, 2012; Digman, 1990; Poropat, 2009). The big five factors are openness, conscientiousness, extraversion, agreeableness and neuroticism. Openness is characterized by creativity, intellectualism and preference for novelty as opposed to consistency or being cautious. Conscientiousness implies discipline, responsibility and orderliness versus being easy-going and careless. Sociability, energy and talkativeness are the signposts of extraversion as opposed to being solitary and reserved. Agreeable individuals exhibit warmth, cooperativeness and helpfulness contrary to being challenging or detached. Anxiety, moodiness and emotional instability suggest neuroticism as opposed to being secure and confident (Koseoglu, 2014).

The model under consideration maintains that the popularity of FB has evolved by fulfilling two of the fundamental personality needs - presentation and belonging. The components of the model are the two needs, the behaviors of individuals to gratify those two needs, the choice of alternate selves, and the Big Five. Firstly, it claims that the need of self-presentation is driven by either the motive of seeking attention or the motive of expressing an alternate self. Regardless, these two motives are fulfilled either through posting information about

one-self (general self-disclosure) and/or through emotional self-disclosure. The information posted may be the product of actual , hidden or ideal self. Secondly, also two other motives give rise to the need of belonging – connecting and seeking acceptance. As used here, the first motive of “connecting” implies linking with others or supporting them with the intention of becoming a part of the “whole”. The second motive of seeking acceptance is linked to identity development – if the actions are “liked” by others, their approval boosts mentality. These two motives are satisfied either through information seeking (using FB to learn about others) and/or communication (using FB to communicate with others). The current study attempts to incorporate these approaches to determine to what extent personality influences the motivations to use FB to fulfill these two needs.

3.1. Openness

Openness is associated with greater social media use (Correa et al., 2010; Ross et al., 2009). It has been found that open individuals post more on others’ walls (Karl, Peluchette, & Schlaegel, 2010 ; Sheldon & Gunz, 2009) , and supplementing real-life interactions by using FB to learn about others and plan activities (Wilson et al., 2010).

Hypothesis 1 : openness may be positively associated with communicating and information seeking.

In their online self-presentation, open individuals are more self- disclosing, are more likely to blog (Pew Research Center, 2015) and reveal personal information in their Facebook profiles (Richardson, Abraham, & Bond, 2012; Amichai-Hamburger & Vinitzky, 2010)

Hypothesis 2 : openness may be positively associated with general self-disclosure and emotional disclosure.

3.2. Conscientiousness

Conscientiousness is positively correlated with the quality and quantity of interpersonal relationships (Boyd & Ellison, 2008), indicating that conscientious people may use FB to seek and maintain social connections. However, conscientiousness is negatively related with SNS use (Lei & Zhao, 2005; Ryan & Xenos, 2011; Wilson et al., 2010), implying that conscientious people are cautious online and may choose to satisfy their belonging needs offline.

Hypothesis 3 : conscientiousness may be negatively associated with communicating, information-seeking, acceptance-seeking and connection/caring.

It seems that conscientiousness implies a cautious and authentic self-presentation. Leary (2007) found that conscientious individuals presented themselves in ways consistent with group norms, compatible with their self-perceptions and took on fewer distinct personas. Supporting the notion that conscientious people present themselves cautiously online, Gosling et al. (2011) found that conscientiousness was related with greater regret over inappropriate FB posts.

Hypothesis 4 : conscientiousness may be negatively associated with general self-disclosure, emotional disclosure, attention-seeking and expression of hidden and ideal self-aspects.

3.3. Extraversion

Extraversion is associated with several belongingness-related constructs. It has been found that extraverts have more friends with higher quality (Kolek & Saunders, 2008) and more satisfying romantic relationships than introverts (Walsh, Fielder, Carey, & Carey, 2013; Emery, Muise, & Le, 2015). Therefore, it may be expected that extraversion may be related to greater FB use (Utz, 2010; Gosling et al., 2011; Wilson et al., 2010) and may entail more friends (Ellison, Steinfeld, & Lampe, 2007; Huang, 2010). Extraverts use FB to communicate with others by contacting friends (Amichai-Hamburger & Vinitzky, 2010; Boyd & Ellison, 2008) and commenting on friends’ pages (Ross et al., 2009; Stoughton, Thompson, & Meade, 2013) . On the other hand, there are studies that maintain that extraverts visit and view others’ FB pages (Gosling et al., 2011) and in contrast , other studies point out that introverts also use FB to keep up with friends (Moore & McElroy, 2012). Hence, the relationship between extraversion and the use of FB to learn about others is not clear but it will be tested in this study.

Hypothesis 5 : extraversion may be positively related to communication.

Extraverts deliberately evaluate relevant factors before committing themselves to a self-presentation. Extraversion is associated with public self-consciousness (Boyd, 2008) and self-regulation (Rodgers & Sheldon, 2002). Findings on the relationship between self-disclosure and extraversion have not been consistent. Amichai-Hamburger & Vinitzky (2010) found that extraverts conceal personal information in their profiles, whereas Lee, Ahn, & Kim (2014) maintained that extraversion was associated with greater self disclosure. This controversy may be explained by findings that point out to the fact that although extraverts are more likely to replace their profile photos and post photographs containing others, they are neither prepared to post photographs of themselves alone nor update their profile (Lin & Lu, 2011). These contradictions suggest that focusing on motivations rather than specific activities may be more illuminating in understanding extraverts' self-presentation. Extraverts are more likely to employ the same approaches online and offline. Introverts tend to feel that they are able to express hidden self-aspects better online (Leary, 2007; Bradlee & Emmons, 1992) as do individuals in high social anxiety (Park, Kee, & Valenzuela, 2009), a trait positively correlated with introversion (Landers & Lounsbury, 2006), suggesting that extraversion is negatively related to displaying hidden qualities on FB.

Hypothesis 6 : extraversion may be positively associated with expression of actual self-aspects and negatively associated with expression of hidden self aspects.

3.4. Agreeableness

Agreeable people enjoy successful friendships (Engelberg & Sjöberg, 2004) and romances (Tosun & Lajunen, 2010). Because of their positive outlook toward others, belongingness motivations should be meaningful to agreeable individuals and they may choose FB as one of the ways to gratify those needs. Although some studies predicted an association between agreeableness and FB communication (Ross et al., 2009; Moore & McElroy, 2012), no evidence have yet been unearthed. Despite such a precedence, this study will test such a relationship as well as examining motivations and behaviors.

Hypothesis 7 : agreeableness may be positively associated with information-seeking, acceptance-seeking and connection.

Agreeable people portray a more consistent and authentic version of themselves (Parks & Floyd, 1996) and have greater conscientious control over their online self-presentation (Jung, Youn, & McClung, 2007) Thus, they may use FB to express their actual selves and abstain from seeking attention. Agreeableness has not been related to specific SNS self-presentational behaviors other than a finding about agreeable females' posting more photographs (Amichai-Hamburger & Vinitzky, 2010) . Therefore, the current study's focus on self-presentation motives may provide a useful understanding of the relationship between agreeableness and FB use.

Hypothesis 8 : agreeableness may be positively associated with the expression of actual selves and negatively with attention seeking.

3.5. Neuroticism

Neuroticism is associated with several outcomes relating to belongingness needs. Neurotic individuals are less satisfied with romantic partners (Belk, 2013; Emery, Muise, Alpert, & Le, 2015) and are more sensitive to rejection (Lee, Ahn, & Kim, 2014; Nadkarni & Hofmann, 2012) and thus may seek acceptance and social contact through FB. Cervone & Pervin (2008) maintained that low esteem, a trait closely linked to neuroticism (Amichai-Hamburger, 2002; Ebeling-Witte, Frank, & Lester, 2007), was related to the belief that FB provided opportunities to connect with others and to get support and attention under circumstances they feared would burden others offline.

Hypothesis 9 : neuroticism may be positively related to communication, information seeking and acceptance seeking.

Research points out that neurotic individuals are anxious about self presentation. Neuroticism is correlated with social anxiety and public self-consciousness (Cervone & Pervin, 2008; Stoughton, Thompson, & Meade, 2013). Neurotic individuals tend to have large discrepancies between the actual and the ideal self (Huang, 2010; Kim & Lee, 2011) and present themselves in ways that differ from their own self-perceptions (Leary & Allen, 2011) suggesting that they may present idealized selves online. Neuroticism is correlated with both social anxiety and low self-esteem and as such these individuals regard FB as a safe place for self-expression (Forest & Wood, 2012; Leary et al., 1995) . Hence, consistent with the findings of Amichai-Hamburger, Wainapel, & Fox (2002),

it may be expected that neurotic individuals may use FB to express hidden self-aspects. Furthermore, because FB represents a safe place, actual self-expression and self-disclosure should be greater among neurotic individuals. Supporting this notion, research has shown that neurotic individuals are more likely to blog (Guadagno, Okdie, & Eno, 2008) and post on their walls (Ross et al., 2009). Additionally, low self-esteem is related to negative emotional expression in wall postings (Cervone & Pervin, 2008); thus it is likely that neurotic individuals will emit negative emotions via FB.

Hypothesis 10: neuroticism may be positively associated with general self-disclosure, emotional disclosure and expression of actual, hidden and ideal self-aspects.

4. Methods

4.1. Participants

The participants consisted of 214 undergraduate university students enrolled in various departments of a non-profit, private university in İstanbul, Turkey. The ages of the students varied between 18 to 20. Since the language of instruction is English, the scales used were in English as well. The native language of the students was Turkish and English was their second language with levels ranging from intermediate to advanced.

The breakdown according to departments and gender is given in table 1.

Table 1. Breakdown of participants according to gender and department

Department	Arts & Sci.		Bus. Adm.		Commun.		Engineer.		Architect.		Law		total
Gender	M	F	M	F	M	F	M	F	M	F	M	F	
Number	22	18	19	14	11	19	27	25	18	16	10	15	
Sum (M+F)	40		33		30		52		34		25		214
%	18.8		15.3		13.8		24.8		15.8		11.5		100

86% of the students were first-year, 9% were second and 5% third-year students, all of whom reported using FB between 0 to 40 hours per week ($M=9.18$, $SD=6.42$)

4.2 Materials and procedure

The study was conducted during regular class time. The students were informed that their participation was voluntary and their responses would remain confidential. The students filled in a questionnaire assessing demographic characteristics, FB use and motivations, the Big Five. No time limit was imposed for filling the questionnaire.

4.2.1. The Big Five

The participants completed Saucier's (1994) brief version of Goldberg's big five markers by rating themselves on 40 traits using 5 points Likert scales.

4.2.2. Belongingness

In order to assess the extent to which participants used FB to help bring about belongingness, the participants were asked to deal with four scales. Two of these assessed belongingness behaviors, namely information-seeking and communication and the other two assessed motivations, namely acceptance seeking and connection. The participants evaluated how frequently they engaged in a behavior or how often their FB activity was stimulated by each motive, using a 7-point Likert scale. Three items were employed to evaluate the behavior of information seeking - viewing others' profiles, viewing others' photographs, and viewing news feed encompassed. Two items were used to assess the behavior of communication- writing on others' walls and commenting on others' posts. The motivation of acceptance-seeking was measured by two items - posting to feel included and posting

to make others feel closer to oneself. Posting to feel closer to others, show caring for others and support others were the three items rating the motivation of connection/caring. Descriptive statistics are given in table 2:

Table 2. Breakdown of items comprising belongingness

Belongingness	Scales	Number of items to answer	Cronbach's α	m	s.d.
Behaviors	Information seeking	3	0.882	6.34	1.56
	communication	2	0.812	4.27	1.22
Motivations	Acceptance-seeking	2	0.877	4.62	1.75
	Connection/caring	3	0.767	4.58	1.67

4.2.3. Self-presentation

In order to assess the extent to which participants used FB to help bring about self-presentation, the participants were asked to deal with six scales. Two of these assessed self presentation behaviors (general self disclosure and emotional disclosure) , one assessed attention seeking motivation and three the extent to which FB was used to express different self-aspects (actual, hidden and real). Ratings were made on a 7-point Likert scale. General self-disclosure was assessed by six items – changing status, updating profile, posting about special events, posting about daily events, posting photographs of special events, posting photographs of daily events. Emotional disclosure consisted of two items – “posting about a trauma in my life” and “venting frustrations”. Attention seeking consisted of two items – showing off and getting attention. To assess expression of the actual self, participants answered questions on how they generally used FB to express “who I really am” by reporting on how often they posted status updates, posted photographs, and updated their profile. Similar items assessed expression of the hidden self – “aspects of myself that I do not feel comfortable offline” and ideal self – “the way I'd ideally like to be”. Descriptive statistics are given in table 3:

Table 3. Breakdown of items comprising self-presentation

Self presentation	Scales	Number of items to answer	Cronbach's α	m	s.d.
Behaviors	General self-disclosure	6	0.867	3.65	1.48
	Emotional disclosure	2	0.924	3.34	1.85
Motivations	Attention seeking	2	0.849	3.18	1.88
Self-aspects	Actual	4	0.889	4.96	2.44
	Hidden	4	0.829	3.31	2.24
	ideal	4	0.828	3.82	1.87

5. Results and Discussion

To test the relationship of the Big Five to belonging and self-presentation, regression analyses were carried out with each of the scales described above as criterion variables and the Big Five as predictors. Gender and the number of hours per week the participants reported using FB were entered in Step 1 as control variables. The Big Five were entered in Step 2. With the exception of information-seeking and emotional disclosure, all the analyses the Big Five traits accounted for a significant amount of the variance beyond the control variables.

Tables 4 and 5 show the regression coefficients and standard errors for each predictor. To determine if motivations mediated the relationship between personality and behaviors, mediational analyses were conducted for any cases in which a trait significantly predicted one or more motivations and one or more behaviors. Mediational analyses were conducted using the steps recommended by Baron & Kenny (1986) with a Sobel test to determine significance of the mediation effect.

Table 4- Regression results predicting belongingness and self-presentation behaviors and motivations ($p < 0.01$)

Regression Coefficients for each Predictor							
ΔR^2							(represents
ΔR^2 from step 1 to step 2)							
belongingness	Criterion variables	openness	conscientiousness	extraversion	agreeableness	neuroticism	
	Communication	0.16	-0.14	0.37	0.53	0.54	0.078
	Information – seeking	-0.32	0.27	0.26	0.26	0.50	0.047
	Acceptance – seeking	0.13	-0.87	-0.12	0.47	0.39	0.097
	Connection/caring	-0.11	-0.40	-0.14	0.65	0.42	0.067
Self-presentation.	Gen. self-disclosure	0.09	-0.32	0.30	0.27	0.38	0.051
	Emotional self-discl.	0.08	-0.23	0.40	0.06	0.57	0.072
	Attention-seeking	-0.19	-0.64	0.26	-0.67	0.26	0.243
	Actual self-presen.	0.32	-0.28	0.42	0.48	0.60	0.085
	Hidden self-presen.	-0.09	-0.45	0.09	-0.12	0.42	0.095
	Ideal self-presen.	-0.12	-0.48	0.34	0.09	0.78	0.122
	M	4.82	4.80	4.56	4.68	3.69	

Table 5- Regression results – standard errors for each predictor

Standard Errors for each Predictor							
belongingness	Criterion variables	openness	conscientiousness	extraversion	agreeableness	neuroticism	
	Communication	0.26	0.25	0.23	0.27	0.18	
	Information seeking	0.26	0.25	0.24	0.27	0.18	
	Acceptance seeking	0.28	0.25	0.18	0.24	0.32	
	Connection/caring	0.34	0.19	0.16	0.18	0.42	
Self-presenta.	Gen. self-disclosure	0.16	0.25	0.23	0.26	0.27	
	Emotional self-discl.	0.24	0.29	0.26	0.31	0.31	
	Attention-seeking	0.29	0.28	0.25	0.30	0.30	
	Actual self-presen.	0.27	0.26	0.23	0.27	0.27	
	Hidden self-presen.	0.24	0.23	0.21	0.24	0.24	
	Ideal self-presen.	0.28	0.27	0.24	0.28	0.29	
	SD	0.68	0.76	0.84	0.76	0.72	

5.1. Behavior and motivations designating belongingness

Contrary to Hypothesis 7, agreeableness was positively correlated with communication but was unrelated to information-seeking, contradicting past research which showed that agreeableness is unrelated to FB communication (Seidman, 2013). As predicted, agreeable individuals were more likely to use FB to seek acceptance and maintain connection. In addition, the relationship between agreeableness and communication was not mediated by acceptance motivation but was partially mediated by connection ($z=2.76, p < 0.01$)

Consistent with Lee, Ahn, & Kim (2014) but contrary to Moore and Elroy (2012), extraversion was found to be associated with communication. As opposed to predictions and past research, openness was unrelated to information seeking and communication.

Neuroticism was found to be associated with communication and was the only trait related to information seeking. These results insinuate that extraverted and agreeable people may use FB as a way to vigorously support offline relationships. On the other hand, neurotic individuals may use FB as an inactive way to discover what others are doing. Contrary to hypothesis 9, no relationship between neuroticism and acceptance-seeking was found. It is possible to surmise that neurotic individuals do not seek acceptance online on account of rejection concerns. Future research should explore the behaviors that affect acceptance-seeking behavior in neurotic individuals.

Contrary to the stated hypotheses, conscientiousness was found to be unrelated to information seeking and communication. As predicted, conscientiousness was negatively correlated with acceptance-seeking and connection. It can be inferred that conscientious individuals are more interested in content rather than the activity.

5.2. Behavior and motivations designating self-presentation

Extraversion was found to be associated with actual self-presentation, consistent with predictions. However, extraversion was found to be barely related positively to emotional disclosure, an association partially mediated by actual self-expression ($z=2.56$, $p < 0.01$). It can be suggested that extraverts may simply feel more comfortable disclosing their feelings to others, especially feelings about their authentic self. Contrary to hypothesis 6 and the results of Amichai-Hamburger et al. (2002), no relationship was found between extraversion and hidden self-expression. In accordance with predictions, agreeableness was positively related to actual self-presentation and negatively related to attention seeking. Contrary to hypothesis 2, openness was unrelated to disclosure. One explanation may be that the widespread use of SNS among students might have made disclosure relatively obsolete.

In accordance with hypothesis 10, neuroticism was positively associated with general self-disclosure, emotional disclosure and presentation of actual, ideal and hidden self-aspects. This is consistent with those of Amichai-Hamburger et al. (2002). The relationship between neuroticism and emotional disclosure was partially mediated actual ($z=2.96$, $p < 0.05$), ideal ($z=3.26$, $p < 0.01$) and hidden ($z=2.46$, $p < 0.05$) self-expression. The association between neuroticism and general self-disclosure was completely mediated by actual ($z=2.45$, $p < 0.05$), ideal ($z=3.45$, $p < 0.01$), and hidden ($z=2.24$, $p < 0.05$) self-expression. This suggests that the relationship between neuroticism and disclosure of both personal information and emotions is due largely to self-presentational needs.

In support of hypothesis 4, conscientiousness was negatively associated with attention-seeking and hidden and ideal self-expression, but, contrary to this hypothesis, conscientiousness was unrelated to emotional and general self-disclosure. On the other hand, when individual items were separately analyzed, it was understood that conscientiousness was negatively correlated with posting photographs.

6. Conclusions

The current study examined the relationship between the Big Five and the use of FB to satisfy the needs of belonging and self-presentation. It has been found that the need of belongingness is best predicted by high agreeableness and neuroticism. Belongingness motives such as acceptance seeking and connection/caring are strong in agreeable individuals and the results suggest that FB is one tool by which such individuals can meet them. Neurotic people may generally suffer social upheavals and therefore if their belongingness needs are not fulfilled offline, then it can be fulfilled online through FB. It has been found that the need of self-presentation is best predicted by high neuroticism and low conscientiousness. Conscientious people are prudent in their online self-presentations. Neurotic individuals may regard FB as a safe haven for self-presentation, including hidden and ideal self aspects. Mediational analyses indicate that the opportunity to express such self-aspects encourages the greater use of FB as a tool for personal disclosure.

In order to discern the relationship between FB use and personality, rather than the frequency of specific behaviors, motivations for FB use should be focused on. It has been found in the current study that conscientiousness and agreeableness turned out to be better predictors of motivations than behaviors. Furthermore, in many cases, motivations mediated the relationship between personality and behavior. It should be remembered that past research on personality and FB use has often yielded mixed findings. This may be due in part to the inherent weaknesses of reporting but it may also be due to limitations of concentrating solely on behavior. Future research should continue to examine motivational variables and behaviors may need to be assessed in a variety of ways, including focusing on the specific content of posts, rather than just the frequency behavioral measures.

By examining the relationship between the Big Five and FB within the simpler theoretical framework of belonging and self-presentation proposed by Nadkarni and Hofmann (2012), the current research extends past work. This division may be beneficial in understanding how certain traits are linked to FB use. For example, agreeable people appear to be more motivated when their belonging needs are satisfied than their self-presentational needs. On the other hand, neurotic individuals appear to be more motivated by self-presentational

needs, particularly when different facets of the self need to be expressed. Hence, the current findings support the notion that these two motivations are important in understanding the relationship between personality and FB use.

Bibliography

- Amichai-Hamburger, Y. (2002). Internet and personality. *Computers in human behavior*, 18, 1-10.
- Amichai-Hamburger, Y., & Vinitzky, G. (2010). Social network use and personality. *Computers in human behavior*, 26, 1289-1295.
- Amichai-Hamburger, Y., Wainapel, G., & Fox, S. (2002). 'On the Internet, no one knows I'm an introvert': extroversion, neuroticism, and Internet interaction . *Cyberpsychology and behavior* , 5, 125-128.
- Anderson, A., Boyles, J., & Rainie, L. (2012). The future of higher education . Retrieved 2012, from Pew Internet Research Center: <http://www.pewinternet.org/topics/future-of-the-internet.aspx>
- Back, M., Stopfer, J., Vazire, S., Gaddis, S., Schmuckle, S., Egloff, B., & Gosling, S. D. (2010). Facebook profiles reflect actual personality, not self-idealization. *Psychological science*, 21, 372-374.
- Bandura, A. (1997). *Self-Efficacy : The Exercise of Control*. New York : Freeman.
- Bargh, J., & McKenna, K. (2004). The Internet and social life . *Annual Review of Psychology*, 55, 573-590.
- Baron, R., & Kenny, D. (1986). The moderator - mediator variable distinction in social psychological research : conceptual, strategic and statistical considerations. *Journal of personality and social psychology*, 51, 1173-1182.
- Baumeister, R., & Leary, M. (1995). The need to belong: desire for interpersonal attachments as a fundamental human motivation. *Psychological bulletin*, 117, 497-529.
- Baumeister, R., & Tice, D. (1990). Anxiety and social exclusion. *journal of social and clinical psychology*, 9, 165-195.
- Belk, R. (2013). Extended self in a digital world. *Journal of consumer research*, 40, 477-500.
- Boyd, D. (2008). Why youth (heart) social network sites: the role of networked publics in teenage social life. In D. Buckingham (Ed.), *Youth, identity and digital media* (pp. 119-142). Cambridge, MA: MIT Press.
- Boyd, D., & Ellison, N. (2008). Social network sites: definition, history and scholarship. *Journal of computer-mediated communication*, 13, 97-110.
- Bradlee, P., & Emmons, R. (1992). Locating narcissism within the interpersonal circumplex and the five factor model. *Personality and individual differences*, 13, 821-830.
- Cervone, D., & Pervin, L. (2008). *Personality : theory and research* (10 ed.). Hoboken, NJ: Wiley.
- Correa, T., Hinsley, A., & de Zuniga, H. (2010). Who interacts on the web? : the intersection of users' personality and social media use. *Computers in human behavior*, 26, 247-253.
- Denissen, J., Penke, L., Schmitt, D., & Van Aken, M. (2008). Self-esteem reactions to social interactions: evidence for sociometer mechanisms across days, people and nations. *Journal of personality and social psychology*, 95, 181-196.
- Digman, J. (1990). Personality structure : emergence of the five-factor model. *Annual review of psychology*, 41, 417-440.
- Ebeling-Witte, S., Frank, M., & Lester, D. (2007). Shyness, Internet use, and personality. *Cyberpsychology and behavior*, 10, 713-716.
- Ellison, N., Steinfeld, C., & Lampe, C. (2007). The benefits of Facebook "friends": social capital and college students' use of online social network sites. *Journal of computer mediated communication*, 12, 1143-1168.
- Emery, L., Muise, A., & Le, B. (2015). Do we look happy? Perceptions of romantic relationship quality on Facebook. *Personal relationships*, 22, 1-7.
- Engelberg, E., & Sjöberg, L. (2004). Internet use , social skills, and adjustment. *Cyberpsychology and behavior*, 7, 41-47.
- Facebook. (2017, june 30). retrieved from <http://en.wikipedia.com>. Retrieved june 30, 2017
- Forest, A., & Wood, J. (2012). When social networking is not working: individuals with low self-esteem recognize but do not reap the benefits of self-disclosure on Facebook. *Psychological science*, 23, 295-305.
- Gosling, S., Augustine, A., Vazire, S., Holtzmann, N., & Gaddis, S. (2011). Manifestations of personality in online social networks: self-reported Facebook-related behaviors and observable profile information. *Cyberpsychology, behavior, and social networking*, 14, 483-488.
- Gosling, S., Gaddis, S., & Vazire, S. (2007). Personality impressions Based on Facebook Profiles. *Proceedings of the International conference on weblogs and social media*. Menlo Park, CA: Association for the advancement of Artificial Intelligence press.
- Greenfield, P., Gross, E., Subrahmanyam, K. S., & Tynes, B. (2006). Teens on the Internet: interpersonal connection, identity, and information. *Information technology at home*, 185-200. (R. Kraut, M. Brynin, & S. Kiesler, Eds.) Oxford: Oxford university press.
- Guadagno, R., Okdie, B., & Eno, C. (2008). Who blogs? Personality predictors manifestations of personality in online social networks: self-reported of blogging. *Computers in human behavior*, 24, 1993-2004.
- Huang, C. (2010). Internet use and psychological well-being: a meta analysis. *Cyberpsychology, behavior and social networking*, 13, 241-249.
- Jackson, J., & Wang, J.-L. (2013). Cultural differences in social networking sites use: a comparative study of China and the United States. *Computers in human behavior*, 29, 910-921.
- Jung, T., Youn, H., & McClung, S. (2007). Motivations and self presentation strategies on Korean-based "Cyworld" weblog format personal homepages. *Cyberpsychology and behavior* , 10(1), 24-31.
- Kansi, J. (2003). The narcissistic personality inventory: applicability in a Swedish population sample . *Scandinavian journal of psychology*, 44, 441-448.
- Karl, K., Peluchette, J., & Schlaegel, C. (2010). Who's posting Facebook Faux Pas? A cross-sectional examination of personality differences. *International journal of selection and assessment*, 18, 174-186.
- Katz, J. E., Rice, R. E., & Aspden, P. (2001). The Internet , 1995-2000. *Am. Behavior. Sci.* , 45, 405-419.
- Kim, J., & Lee, J. (2011). The Facebook paths to happiness: effects of the number Facebook friends and self presentation on subjective well-being. *Cyberpsychology, behavior and social networking*, 6, 359-364.
- Kim, Y., Sohn, D., & Choi, S. (2011). Cultural difference in motivations for using social network sites: a comparative study of the American and Korean college students. *Computers in human behavior*, 27, 365-372.
- Kolek, E., & Saunders, D. (2008). Online disclosure: an empirical examination of undergraduate profiles. *NASPA journal*, 45(1), 1-25.
- Koseoglu, Y. (2014). Academic motivations and the big five. *Journal of emerging trends in educational research and policy studies* , 344-351.
- Kraaykamp, G., & van Eijck, K. (2005). Personality, media preferences and cultural participation. *Personality and individual differences*, 38, 1675-1688.
- Landers, R., & Lounsbury, J. (2006). An investigation of Big Five and narrow personality traits in relation to Internet use. *Computers in human behavior*, 22, 283-293.

- Lau, W. (2017). Effects of social media usage and social media multitasking on the academic performance of university students. *Computers in human behavior*, 286-291.
- Leary, M. (2007). Motivational and emotional aspects of the self. *Annual review of psychology*, 58, 317-344.
- Leary, M., & Allen, A. (2011). Self-presentational persona: simultaneous management of multiple impressions. *Journal of personality and social psychology*, 101, 1033-1049.
- Leary, M., Tambor, E., Terdal, S., & Downs, D. (1995). Self-esteem as an interpersonal monitor: the sociometer hypothesis. *Journal of personality and social psychology*, 68, 518-530.
- Lee, E., Ahn, J., & Kim, Y. J. (2014). Personality traits and self-presentation at Facebook. *Personality and individual differences*, 69, 162-167.
- Lei, J., & Zhao, Y. (2005). Technology uses and student achievement: a longitudinal study. *Computers and education*, 49, 284-296.
- Leung, L. (2013). Generational differences in content generation in social media: the roles of gratifications sought and of narcissism. *Computers in human behavior*, 29, 997-1006.
- Lin, K.-Y., & Lu, H.-P. (2011). Why people use social networking sites: an empirical study integrating network externalities and motivation theory. *Computers in human behavior*, 29, 997-1006.
- Manago, A., Graham, M., Greenfield, P., & Salimkhan, G. (2008). Self presentation and gender on MySpace. *Journal of developmental psychology*, 29, 446-458.
- Markus, H., & Nurius, P. (1986). Possible selves. *American Psychologist*, 41, 954-969.
- McCrae, R., & Costa, P. J. (1995). Personality trait structure as a human universal. *American Psychologist*, 52, 509-516.
- McCrae, R., & John, O. (1992). An introduction to the five factor model and its applications (special edition). *Journal of personality*, 60, 175-215.
- Mehdizadeh, S. (2010). Self-presentation 2.0: narcissism and self-esteem on Facebook. *Cyberpsychology, behavior and social networking*, 13, 357-364.
- Moore, K., & McElroy, J. (2012). The influence of personality on Facebook usage, wall postings and regret. *Computers in human behavior*, 28(1), 267-274.
- Nadkarni, A., & Hofmann, S. (2012). Why people use Facebook. *Personality and Individual Differences*, 52(3), 243-249.
- Park, N., Kee, K., & Valenzuela, S. (2009). Being immersed in social networking environment: Facebook groups, uses and gratifications. *Cyberpsychology and behavior*, 12, 729-733.
- Parks, M., & Floyd, K. (1996). Making friends in cyberspace. *Journal of communication*, 46(1), 80-97.
- Peluchette, J., & Karl, J. (2010). Examining students' intended image on Facebook: "what are they thinking". *Journal of education for business*, 85, 30-37.
- Pew Research Center. (2015, October 08). Social media usage 2005-2015. Retrieved August 5, 2017, from Pew Research: <http://www.pewinternet.org/2015/10/08/social-networking-usage-2005-2015/>
- Poropat, A. (2009). A meta analysis of the five factor model of personality and academic performance. *Psychological bulletin*, 135, 322-338.
- Qiu, L., Lu, J., Yang, S., Qu, W., & Zhu, T. (2015). What does your selfie say about you? *Computers in human behavior*, 52, 443-449.
- Richardson, M., Abraham, C., & Bond, R. (2012). Psychological correlates of university students' academic performance: a systematic review and meta-analysis. *Psychological bulletin*, 138(2), 353-587.
- Rodgers, S., & Sheldon, K. (2002). An improved way to characterize internet users. *Journal of advertising research*, 42(5), 85-94.
- Ross, C., Orr, S., Sisc, J., Simmering, M., & Orr, R. (2009). Personality and motivations associated with Facebook use. *Computers in human behavior*, 25, 578-586.
- Ryan, T., & Xenos, S. (2011). Who uses Facebook? An investigation into the relationship between the Big Five, shyness, narcissism, loneliness and Facebook usage. *Computers and human behavior*, 27, 1658-1664.
- Saucier, G. (1994). Mini-markers: a brief version of Goldberg's unipolar Big-Five markers. *Journal of personality assessment*, 64, 505-516.
- Seidman, G. (2013). Self-presentation and belonging on Facebook: how personality influences social media use and motivations. *Personality and individual differences*, 54, 402-407.
- Sheldon, K., & Gunz, A. (2009). Psychological needs as basic motives, not just experiential requirements. *Journal of personality*, 77, 1467-1492.
- Sheldon, K., Abad, N., & Hirsch, C. (2011). A two-process view of Facebook use and relatedness need-satisfaction: disconnection drives use and connection rewards it. *Journal of personality and social psychology*, 100, 766-775.
- Social media usage 2005-2015. (2015, October 8). Retrieved August 4, 2017, from Pew Research Center.
- Spar, D. (2001). *Ruling the Waves: Cycles of Discovery, Chaos and Wealth from the compass to the Internet*. New York: Harcourt.
- Srivastava, S., & Beer, J. (2005). How self-evaluations related to being liked by others: integrating sociometer and attachment perspectives. *Journal of personality and social psychology*, 89, 966-977.
- Stoughton, J., Thompson, L., & Meade, A. (2013). Big five personality traits reflected in job applicants' social media postings. *Cyberpsychology, behavior, and social networking*, 16, 800-805.
- Sung, Y., Lee, J.-A., Kim, E., & Choi, S. (2016). Why we post selfies: understanding motivations for posting pictures of oneself. *Personality and individual differences*, 97, 260-265.
- Tosun, L., & Lajunen, T. (2010). Does Internet use reflect your personality? Relationship between Eysenck's personality dimensions and Internet use. *Computers in human behavior*, 26, 162-167.
- Utz, S. (2010). Show me your friends and I will tell you what type of person you are: how one's profile, number of friends and type of friends influence impression formation on social network sites. *Journal of computer-mediated communication*, 15, 314-335.
- Vazire, S., Naumann, L., Rentfrow, P., & Gosling, S. (2008). Portrait of a narcissist: manifestations of narcissism in physical appearance. *Journal of research in personality*, 42, 1439-1447.
- Walsh, J., Fielder, R., Carey, K., & Carey, M. (2013). Female college students' media use and academic outcomes: results in a longitudinal cohort study. *Emerging adulthood*, 1(3), 219-232.
- Wang, J.-L., Jackson, L., Wang, H.-Z., & Gaskin, J. (2015). Predicting social networking site (SNS) use: personality, attitudes, motivation and internet self-efficacy. *Personality and individual differences*, 80, 119-124.
- Weiser, E. B. (2015). #Me: narcissism and its facets as predictors of selfie-posting frequency. *Personality and individual differences*, 86, 477-481.
- Wilson, A., & Ross, M. (2001). From chump to champ: people's appraisals of their earlier and present selves. *Journal of personality and social psychology*, 80(4), 572-584.
- Wilson, K., Fonacier, S., & White, K. (2010). Psychological predictors of young adults' use of social networking sites. *Cyberpsychology, behavior and social networking*, 173-177.
- Wilson, R., Gosling, S., & Graham, L. (2012). A review of Facebook research in the social sciences. *Perspectives on psychological science*, 7, 203-220.
- Young, K. (1998). Internet addiction: the emergence of a new clinical disorder. *CyberPsychology and behavior*, 1, 237-244.
- Zhao, L., Grasmuck, S., & Martin, J. (2008). Identity construction on Facebook: Digital empowerment in anchored relationships. *Computers in human behavior*, 24, 1816-1836.