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# Hello Stranger!

## Trust and Self-Disclosure Effects on Online Information Sharing

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### ABSTRACT

*The current study examined the role of personality attributes and online profile characteristics as predictors of self-disclosure. The authors were specifically interested to learn how personality and profile attractiveness influenced the quantity and type of information individuals would be willing to share about themselves with a potential dating partner who they have never met before. The results of the online survey with 149 female participants revealed that the propensity to trust and extraversion were significant positive predictors of self-reported tendency to self-disclose potentially sensitive and identifying information, while greater profile attractiveness further increased the amount of information they were willing to share. These findings suggest that information disclosure is in part driven by personality and context, which has potential implications for how careful individuals are about revealing potentially sensitive information to strangers.*

*Keywords: Attractiveness, Extraversion, Information Sharing, Online Dating, Privacy, Self-Disclosure, Trust*

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### 1. INTRODUCTION

Self-disclosure is a prominent topic for research in the field of psychological investigation. Jourard (1963) defined self-disclosure as the truthful depiction of the self to others. The notion of self-disclosure within interpersonal relationships is explored through Social Penetration Theory (Altman & Taylor, 1973). According to this theory, intimacy increases through reciprocal disclosure and attraction in the relationship. Self-disclosure also holds a theoretical basis in Social Exchange Theory (Homans, 1958), which suggests that social interactions in interpersonal relationships involve a combination of subjectively perceived rewards and costs.

In recent work, disclosure behaviors have come into focus in the context of online communication such as social networking (Boyd & Ellison, 2007). Indeed, individuals may be more willing to self-disclose a greater amount of information while online, owing to circumstantial aspects such as perceived situational control and anonymity (Taddei & Contena, 2013). According to the Privacy Calculus model (Dinev & Hart, 2006), individuals tend to focus on the benefits of online interactions and disclosure, while thus also risking that their personal information and privacy is compromised in the process. This process may have contributed to the increasing popularity of online dating sites (Valkenburg & Peter, 2007a), as more technologies and platforms enable individuals

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to develop relationships through virtual means. At the same time, concerns about online privacy perceptions are on the increase, challenging the model's applicability (Mesch, 2012).

In response to these developments, recent research has examined how self-disclosure is linked to other personality characteristics as well as the quantity of personal information shared online (Blackhart, Fitzpatrick, & Williamson, 2014). In particular, certain specific personality constructs have been emphasised within previous research as significant predictors of self-disclosure in the online environment (e.g., Liu, Ang, & Lwin, 2013). Some individuals may be more likely to disclose personal - and even intimate - information to people with whom they have never even met in real life. This is important in terms of online security and in response to security issues such as phishing. At the same time, self-disclosure of personal information is an important variable in the case of online dating; members exchange information about each other without necessarily being able to verify the identity, and thus true motives, of the other person.

### 1.1. Predictors of Self-Disclosure

A number of personality constructs have been researched in relation to self-disclosure. We consider extraversion, self-esteem, willingness to trust and self-consciousness.

Extraverted individuals are more active in terms of online communication (Correa, Hinsley & De Zuniga, 2010) and are generally more willing to share sensitive information about themselves (Krämer & Winter, 2008). These findings are in line with the rich-get-richer hypothesis (see Valkenberg & Peter, 2007b). According to this hypothesis, individuals with a socially adept personality and stronger social skills will be more likely to utilise the internet for communication. The implication is that individuals with higher extraversion may show greater social dominance online as an expression of their personality in online settings (e.g., Gosling, Augustine, Vazire, Holtzman, & Gaddis, 2011).

Self-disclosure and expressivity has been linked to self-esteem, the global feeling of self-worth, with those having higher self-esteem adopting less of a cautious and self-protective manner of expressivity online than those with low self-esteem (Gaucher et al., 2012). Expressiveness and disclosure can be manipulated, even amongst those with low self-esteem, when these individuals believed that they were communicating with somebody showing positive regard towards them (Gaucher et al., 2012). This may be relevant to online self-disclosure situations such as online dating. Those with higher self-esteem may be more likely to disclose a greater amount of personal information when describing themselves, compared to those with a lower self-esteem (e.g., Banczyk, Krämer, & Senokozlieva, 2008). This suggests that individuals with higher self-esteem may feel more comfortable to disclose and express more about themselves in online interactions than individuals with lower self-esteem. The latter, who may also be more guarded is less likely to reveal too much information on which they may be judged, as they may feel they do not have much to offer (Burke, Kraut, & Marlow, 2011), and hence face potential rejection by other users. An alternative hypothesis suggests that individuals with lower self-esteem may endeavour to compensate for their behavior in online environments. In other words, they have the option to present themselves in a different way in online communication, disclosing more about themselves to others than they would normally, and acting in a more friendly and open manner (e.g., Zywicki & Danowski, 2008). As a result, higher self-esteem may not necessarily be linked higher self-disclosure in all situations.

Willingness to trust others is another personality dimension that influences information disclosure in online settings such as social networking and dating. Mesch (2012) found that the trust individuals held towards institutions and individuals was associated with online trust; yet only online trust was related to the disclosure of personal identifiable information. The study further ascertained that although trust predicted the disclosure of personal identifiable information online, the perception of privacy risks led

individuals to refrain from such disclosure. Trust is important in that when it is at risk (or absent), individuals are less likely to disclose personal information on a site or share information with another person with whom they are interacting (e.g., Spiekermann, Krasnova, Koroleva, & Hildebrand, 2010). Disclosure of information is furthermore subject to 'dyadic boundary' conditions (Derlega & Chaikin, 1977). In other words, individuals expect that information shared in a relationship will not be shared with others. This suggests that individuals who have higher levels of trust may be more likely to share information online, believing the dyadic boundary will not be breached (Taddei & Contena, 2013).

A fourth construct of interest is public self-consciousness, which is the awareness of the self as it is perceived by others (Schouten, Valkenburg, & Peter, 2007). Past research suggests that individuals with a high level of public self-consciousness will better manage their information and the impression they wish to convey to others (Leary & Allen, 2011), even when there is a risk involved (Posey, Lowry, Roberts & Ellis, 2010).

A number of additional factors have been found to influence both the quality and quantity of personal information that is disclosed between one individual and another in online interactions. This includes physical attractiveness, which plays an important role in the selection of potential partners, as attractiveness may serve as an indicator of good health (and from an evolutionary perspective, good fitness and genes; see Toma & Hancock, 2010). This suggests that in online dating, attractiveness will be an important variable as individuals will be drawn towards others who are seen as attractive (e.g., Hitsch, Hortaçsu, & Ariely, 2006). In the absence of social cues, this preference for attractive partners may be more pronounced than it would be in a situation where potential partners meet face to face (Gibbs, Ellison & Lai, 2011). The online profile usually includes a description of the individual's location, their age and their dating preference. In addition to the description, an image shows a picture of the face and hence the physical attributes of a

person, which may consequently shape initial impressions. Perceived attractiveness and attraction may therefore influence whether or not an individual decides to disclose personal information about themselves to others - and if so - how much they are willing to divulge in relation to the personal details of their life (Fiore, Taylor, Zhong, Cheshire, & Mendelsohn, 2010; see Hitsch et al., 2006). The personal information that may be shared usually includes details about the self, and topics such as family and friends, as these pieces of information may help users to assess the potential for the development of a romantic relationship (e.g., Finkel, Eastwick, Karney, Reis, & Sprecher, 2012).

## 1.2. Current Research

To date, both personality and attractiveness have been explored within the context of self-disclosure. We wanted to determine the effect they have upon self-reported and actual self-disclosure in the context of online dating as a function of physical attractiveness of a potential partner. The current study is highly relevant due to the sheer volume of individuals who utilise the ever increasing services of online dating websites.

In addition, our research is informed by potential risks associated with disclosing personal information in online settings. The disclosure of personal details to a person the individual has never met face to face can lead to a variety of privacy invasion risks (Joinson, Reips, Buchanan, & Schofield, 2010). Tufekci (2008), for example, showed that shared personal data and images in an online forum may also be misused as not all users are trustworthy. Various research sites exist that provide an overview of good vs. poor security questions<sup>1, 2</sup>. Many of the answers to security questions are presented on social media and shared in online dating. As a result, the trust required to explore possible relationships in online dating can easily be abused by strangers who may abuse the security-sensitive details they obtained from the person they are in contact with online.

The current research therefore addresses two generic research questions: ‘Do certain personality constructs have an effect on self-disclosure online?’ and ‘Does physical attractiveness influence self-disclosure in terms of online behavior?’ We tested three separate hypotheses: Extraversion, trust, self-esteem and self-consciousness will increase self-reported self-disclosure (Hyp. 1a) as well as actual self-disclosure of information being shared (Hyp. 1b). In addition, participants will be more likely to share more information when they encounter an attractive rather than unattractive profile in an online dating scenario (Hyp. 2).

## 2. METHOD

### 2.1. Participants

In total, 163 female students participated in the research. We excluded 14 cases due to missing values, or when participants identified themselves as homosexual or chose not to reveal their sexuality, as potential sexual attraction was an important prerequisite for the online dating scenario to be as realistic as possible. The final dataset included 149 female participants that were heterosexual or bisexual. These students tended to be around 21 years of age (age  $MN=21.45$ ,  $SD=5.98$ ; 10 missing values,  $n=139$ ). In terms of the two experimental conditions, 76 participants (51%) completed the survey featuring the attractive profile, while 73 (49%) completed the survey featuring an unattractive profile picture.

### 2.2. Procedure

Following successful ethics approval and the pilot study, participants were invited to take part in an online study. They received the information through the university research portal, or via an invitation posted on Facebook. Two separate online links were created and distributed randomly for each of the two conditions (attractive vs. unattractive online profile). At the beginning of the online questionnaire participants were obligated to fill out the consent form. They were

then told that the purpose of the study is to examine how personality influences information sharing. We then presented the participants with the scales measuring extraversion, trust, self-esteem, self-consciousness and self-disclosure. Having completed these questions, all participants were then presented with the following scenario: “We would like you to consider the following scenario. You are currently registered on an online dating website; you have met James online through the site. James seems to be a lovely person who is always friendly and ready to chat over the internet. You have been in communication with James for a month now and feel as though you are getting to know him very well.” Next to the picture we presented all of the questions asking participants how likely they were to share particular pieces of information with James. The last section asked about demographics and previous online experience. Upon completion, the screen showed the debrief form for participants, where we informed them about the attractiveness conditions (we chose not to tell them so as to avoid biasing the result by informing participants that attractiveness was a variable of interest as well).

### 2.3. Materials for Study

A pilot study was undertaken prior to the main experiment, requiring additional ethics approval. This pilot study involved testing five male faces (pictures of volunteers who agreed to have their faces used for research) to select the most vs. least attractive to be used in the main study featuring an online dating scenario. Five heterosexual female undergraduate students were recruited through opportunity sampling and asked to rate the attractiveness of each of the five pictures presented in randomised order. Using their ratings, we therefore hoped to identify two profile pictures that are perceived as most or least attractive by participants similar to the intended participant pool for the main study (on a scale of 1 to 5 to differentiate between low to high attractiveness). The five scores were subsequently summed to identify which two of the five pictures were rated as

most or least attractive (Face 1=5, Face 2=12, Face 3=15, Face 4=20, and Face 5=23). Based on these ratings, we selected Face 1 for the unattractive profile picture and Face 5 for the attractive profile picture.

## 2.4. Measures

In terms of the main study, an online questionnaire was utilised in SurveyMonkey which included the two faces selected based on the pilot study. Unless stated otherwise, we created a mean-centered composite based on all responses.

### 2.4.1. Self-Consciousness

We used three items from the International Personality Item Pool (IPIP) to assess self-consciousness. An example item is "I am not easily intimidated in social situations". The response scale had five response options (ranging from "strongly disagree" to "strongly agree"). Higher scores indicated lower self-consciousness ( $\alpha = .80$ ,  $MN=3.12$ ,  $SD=.90$ ).

### 2.4.2. Self-Esteem

Four items were used to assess self-esteem. We slightly adapted items from the subscale available on the IPIP website. An example item is "I am just as capable as everyone else." The response scale had 5 response options (ranging from "strongly disagree" to "strongly agree"). We used three of the four items to produce the scale composite. Higher scores indicated higher self-esteem ( $\alpha = .68$ ,  $MN=3.81$ ,  $SD=.68$ ).

### 2.4.3. Propensity to Trust

We utilised four items from a trust subscale on the IPIP website. We amended them slightly for the purpose of the study. An example item is "I trust the things that people tell me". The response scale had five response options (ranging from "never to "always"). Higher scores indicated stronger propensity to trust others ( $\alpha = .82$ ,  $MN=3.38$ ,  $SD=.55$ ).

### 2.4.4. Extraversion

This was measured with three items from an extraversion subscale (IPIP). An example item is "I make friends easily in different situations". The response scale had five response options (ranging from "never to "always"). We created a composite similar to above using two of the three items, as one item did not perform as well. Higher scores indicated stronger propensity to trust others ( $\alpha = .72$ ,  $MN=3.50$ ,  $SD=.75$ ).

### 2.4.5. Self-Disclosure

This measure tries to assess individual differences in terms of the willingness with which individuals will disclose information about themselves. We utilised four slightly adapted items from the IPIP. An example item is "I talk to others about myself and any worries I have". The response scale assessed frequency of engaging in such behaviors and featured five response options ranging from "never to "always"). Higher scores indicated greater frequency of sharing information about themselves ( $\alpha = .81$ ,  $MN=2.81$ ,  $SD=.70$ ).

### 2.4.6. Self-Disclosure (Sharing Likelihood/Behavioral Index)

A new scale was developed to test the likelihood according to which participants would be willing to share particular pieces of information about themselves with the male called James in the dating scenario. We only presented a picture (attractive or not attractive) and asked participants how likely they would be willing to share 11 different pieces of information with the person in the picture. An example item was: "Would you talk about where you live with James?" Other pieces of information we asked them about the participants' family, their age, who they work for, their nicknames, their favourite holiday destinations, their friends, their pets and pet names, their dream job, their favourite music and the place of birth. These variables were selected based on information requested in online dating sites, as well as on other sites such as email providers and banks,

where these pieces of information are frequently supplied in addition to passwords when logging on. The response scale included five options to assess the likelihood with which particular information would be shared by the participants (these options included: very unlikely, unlikely, neither unlikely nor likely, likely, very likely). Reliability analysis indicated good internal consistency ( $\alpha = .91$ ,  $MN=2.81$ ,  $SD=.70$ ).

In addition to creating a measure of likelihood by summing all responses, we recoded all responses to create a numerical measure, indicating how many different pieces of information each participant would be likely to share (recoding very likely and likely as 1, all other responses as 0). This then produced a new measure ranging from 0 to 11, indicating how many pieces of information each participant would be willing to share.

#### 2.4.7. Online Dating Experience

In order to control for the influence of prior online dating experience, we also asked participants if they had dated online before (response options were yes and no).

#### 2.4.8. Demographic Information

We asked participants to tell us about their marital status (married, single, in a relationship) and their age. As this was an online study, which manipulated attractiveness of a male online dating profile, we wanted to make sure we selected female participants for whom such a dating scenario is more likely. We therefore asked participants to indicate if they were heterosexual, homosexual, bisexual (we furthermore included an option "prefer not to answer").

### 2.5. Design

We used a between subjects design in the investigation by featuring two experimental conditions (unattractive vs. attractive online profile) to assess the extent to which profile attractiveness influences information self-disclosure.

## 3. RESULTS

### 3.1. Descriptives and Correlations

All scales except for the self-esteem scale had adequate internal consistency ( $\alpha > .70$ ) and skew and kurtosis were not problematic for any of the scales. Only very few missing cases existed, for which we used mean substitution. We first examined how the various scales and self-disclosure measures correlated with each other (see Table 1). Self-reported self-disclosure correlated positively with lower self-consciousness, higher trust and extraversion. Correlations further suggest that self-consciousness is lower amongst older participants, but age was positively correlated with self-esteem. There are, however, no significant correlations between variables such as self-disclosure and self-esteem.

### 3.2. Personality as Predictor of Self-Reported Self-Disclosure (Hyp. 1a)

Multiple regression was used in order to determine whether or not higher levels of extraversion, self-esteem, self-consciousness and trust could be used to predict a higher level of self-reported self-disclosure. We included age, sexuality (we included bisexual participants), online dating history, relationship status and group condition in the first step ( $R^2 = .090$ ,  $R^2_{adj} = .056$ ,  $F(5,132) = 2.618$ ,  $p = .027$ ). When we added our personality constructs in the second step, we saw a significant improvement in variance being explained ( $R^2 \Delta = .174$ ,  $p < .001$ ). The overall model suggest that we successfully predicted self-reported self-disclosure ( $R^2 = .264$ ,  $R^2_{adj} = .212$ ,  $F(9,128) = 5.106$ ,  $p < .001$ ). Trust was a significant positive predictor of self-reported disclosure ( $b = .293$ ,  $\beta = .229$ ,  $t = 2.929$ ,  $p = .004$ ). Extraversion was a significant positive predictor ( $b = .244$ ,  $\beta = .255$ ,  $t = 2.257$ ,  $p = .026$ ). However, self-consciousness ( $b = .100$ ,  $\beta = .126$ ,  $t = 1.134$ ,  $p = .259$ ) and self-esteem ( $b = -.068$ ,  $\beta = -.064$ ,  $t = -.671$ ,  $p = .503$ ) were not significant predictors of self-disclosure. These results provided partial support for the hypothesis (1a) that extraversion



Table 1. Correlation matrix of the personality constructs, self-disclosure and age

	1.	2.	3.	4.	5.	6.	7.	8.
1. Self-consciousness	1							
2. Self-esteem	.449**	1						
3. Trust	.043	.163*	1					
4. Extraversion	.714***	.434***	.084	1				
5. Self-disclosure (self-reported)	.260**	.061	.225**	.336***	1			
6. Self-disclosure (likelihood)	.065	-.024	.073	.147	.407***	1		
7. Self-disclosure (numerical)	.012	-.059	.019	.059	.338***	.858***	1	
8. Age	.168*	.276**	-.051	.085	.014	.089	.044	1

Note. N=149. \*\*\* Correlation is significant at  $p < .001$  level, \*\* Correlation is significant at the  $p < 0.01$ . \* Correlation is significant at  $t p < 0.05$ .

sion, self-esteem, self-consciousness and trust predict self-disclosure of participants, as only extraversion and trust were found to predict self-reported disclosure.

### 3.3. Personality as Predictor of Self-Disclosure Likelihood (Hyp. 1b)

Next, we examined the extent to which our personality variables (see Hyp. 1a) predicted self-disclosure likelihood (assessed this time using the measure capturing the likelihood with which participants would share pieces of information about themselves). We included age, sexuality, online dating history, relationship status and group condition in the first step ( $R^2 = .130$ ,  $R^2_{adj} = .097$ ,  $F(5,132) = 3.935$ ,  $p = .002$ ). Adding the four personality constructs extraversion, self-esteem, self-consciousness and trust did not improve the model ( $R^2\Delta = .026$ ,  $p = .409$ ). The regression results indicate the overall model only predicted actual likelihood of information being disclosed by our participants due to demographics alone ( $R^2 = .156$ ,  $R^2_{adj} = .097$ ,  $F(9,128) = 2.632$ ,  $p = .008$ ). Neither trust ( $b = .140$ ,  $\beta = .114$ ,  $t = .993$ ,  $p = .323$ ), extraversion ( $b = .113$ ,  $\beta = .114$ ,  $t = .993$ ,  $p = .323$ ), self-consciousness ( $b = .006$ ,  $\beta = .007$ ,  $t = .062$ ,  $p = .950$ ) or self-esteem ( $b = -.046$ ,  $\beta = -.044$ ,  $t = -.429$ ,  $p = .669$ ) were significant predictors of self-disclosure. We retained similar results when we used the

numerical measure for self-disclosure (using the total number of pieces of information that participants were very likely or likely to disclose in the online dating scenario). This means we found no support for the hypothesis (1b) that self-disclosure likelihood is predicted by extraversion, self-esteem, self-consciousness and trust.

### 3.4. Exploratory Analyses (Hyp. 1b)

The results for actual self-disclosure were unexpected. We concluded that it is possible that some pieces of information are more sensitive (e.g., home location, place of birth) than others (e.g., names of holiday locations). As a result, rather than using the sum of all pieces of information participants were likely to share, we considered each of the 11 pieces of information separately. Again, we included the same variables in the first step (age, sexuality, online dating history, relationship status and group condition). We ran the same regression analysis again as in the previous analyses (including all four personality constructs). We observed the following prediction effects.

Propensity to trust was a significant predictor of the likelihood with which participants would share information about their home location ( $b = .387$ ,  $\beta = .156$ ,  $t = 2.479$ ,  $p = .015$ ) and their family ( $b = .358$ ,  $\beta = .173$ ,  $t = 2.071$ ,  $p = .040$ ). Trust was a marginally significant and positive

predictor of participants sharing information about their favourite music ( $b=.244$ ,  $\beta=.126$ ,  $t=1.933$ ,  $p=.055$ ) and a significant predictor of the likelihood of information being shared about one's place of birth ( $b=.416$ ,  $\beta=.176$ ,  $t=2.366$ ,  $p=.020$ ).

Extraversion was a marginally and positive predictor of participants sharing information about pets and pet names ( $b=.347$ ,  $\beta=.187$ ,  $t=1.850$ ,  $p=.067$ ), with more extraverted individuals being more likely to share such information. No significant results emerged for any of the four personality constructs regarding the likelihood with which participants would share information about their age, their employer, their nicknames, holiday destinations, their dream job and one's friends (possibly because this information is often public already on social networking and/or dating sites). These results suggest that trust and extraversion may predict different information sharing, and the type of information involved. Possible contributing factors are individual's background, motivations, and previous online experience - as these are related to a diversity of privacy management strategies employed to manage sensitive personal data (Litt, 2013).

### 3.5. Influence of Attractiveness (Hyp. 2)

The second hypothesis within this investigation looked at whether attractiveness can affect the amount of information participants are likely to disclose (actual self-disclosure, same dependent variable as in Hyp. 1b). We used analysis of covariance to assess group differences (based on profile attractiveness) in terms of the overall likeliness to self-disclose information. We tested several covariates first, including marital status, online dating experience, sexuality and age. The only significant covariate was online dating. When we included this covariate ( $F(1,142)=15.151$ ,  $p<.001$ ,  $\eta^2_p=.09$ ), we observed a significant group difference in the likelihood of self-disclosure based on experimental condition ( $F(1,142)=6.447$ ,  $p=.012$ ,  $\eta^2_p=.04$ ). Participants in the attractive profile

condition had a higher average self-disclosure likelihood score (MN=3.39, SD=.68,  $n=75$ ) than participants who were in the unattractive profile condition (MN=3.11, SD=.70,  $n=70$ ) even after we had controlled for past online dating experience.

When the numerical (score out of 11) self-disclosure index was examined as a dependent variable, we found the same significant group difference ( $F(1,142)=6.311$ ,  $p=.013$ ,  $\eta^2_p=.04$ ). Those in the attractive condition would share on average one extra piece of information (MN=6.44, SD=2.96,  $n=75$ ) than those who were in the less attractive condition (MN=5.27, SD=2.90,  $n=70$ ). These results stayed significant even when we controlled for dispositional self-reported self-disclosure, which means that attractiveness played a key role in terms of the differences in the likelihood and amount of information that was disclosed.

These findings provide support for the hypothesis (2) that the attractiveness of an online profile can influence the likelihood with which individuals will be willing to share information with another individual online.

### 3.6. Exploratory Analyses (Hyp. 2)

In line with the exploratory section under Hypothesis 1b, we considered the possibility that the likelihood with which information would be shared in the two profile conditions would depend on the type of information involved. Using analysis of covariance (controlling for dating experience, trust and extraversion where appropriate), we again found a significant difference based on experimental condition in relation to individuals sharing information about where they live, about their family, their age, friends, dream job and marginally regarding their place of birth. Please note that in the case of sharing information about friends, the covariate (dating experience) and predictor (experimental condition) interacted significantly. This means that both the covariate and predictor worked together to affect self-disclosure about friends. The effect size for the interaction was, however, smaller than the effect size for each the covariate and

experimental condition. The effect size ( $\eta^2_p$ ) suggests small to medium effects. An overview of the significant results is provided in Table 2.

#### 4. DISCUSSION

The purpose of this research was to answer two questions. First, which personality constructs influence self-reported and actual self-disclosure? Our results provided partial support for the role of trust and extraversion (but not self-esteem and self-consciousness). Both trust and extraversion were significant and positive predictors of self-reported self-disclosure. This corresponds with the findings by previous research (e.g., Gibbs et al., 2011; Taddei & Contena, 2013; Gosling et al., 2011). Additional exploratory analyses revealed that greater propensity to trust was associated with increased likelihood that participants would share information about their home location, family, favourite music and place of birth. This also links willingness to trust to revealing potentially sensitive information, which may be used to verify one's identity on various online platforms and websites. None of the personality traits under investigation predicted overall likelihood of disclosing actual information when we summed participant responses across all forms of information they could have potentially shared with the fictional male online profile.

Self-esteem and self-consciousness were not significant predictors of self-disclosure. It is possible that the results for self-esteem are due to the fact that individuals with lower self-esteem may be more likely to engage in online activities and disclosures in an effort to raise their self-esteem (e.g., Mehdizadeh, 2010). At the same time, the visual anonymity in online settings may result in less inhibition and thus potentially result in greater self-disclosure, even when individuals rate high on self-consciousness (e.g., Brunet & Schmidt, 2008). Other research suggests that individuals who are more publicly self-conscious or self-aware will have a higher concern over the opinion others have of them (Vasalou, Joinson, & Pitt, 2007). This may cause the former to limit, or control, the amount of personal information they offer to others. This could be one reason why self-esteem and self-consciousness were not significant predictors of self-disclosure. Hence in conclusion, we found evidence that trust and extraversion predict self-reported disclosure, and to some degree, the likelihood with which specific pieces of information will be shared.

The second research question we wanted to answer was as follows: To what extent can the physical attractiveness of an online dating profile shape the amount and type of personal information likely to be shared by individuals? Group difference analyses supported the second hypothesis. Physical attractiveness influences

Table 2. Group differences in self-disclosure across different pieces of information

Information	Results	Attractive profile		Unattractive profile	
		MN	SD	MN	SD
Home location	$F(1,138)=7.152, p=.008, \eta^2_p=.05^{1,2}$	2.54	1.05	2.10	.98
Family	$F(1,140)=4.132, p=.044, \eta^2_p=.03^{1,2}$	3.05	1.10	2.68	1.10
Age	$F(1,143)=3.561, p=.061, \eta^2_p=.02$	3.79	.85	3.49	1.04
Friends*	$F(1,142)=6.231, p=.014, \eta^2_p=.04^1$	3.41	1.09	2.99	1.04
Dream job	$F(1,141)=3.842, p=.052, \eta^2_p=.03^1$	3.73	.91	3.41	1.10
Place of birth	$F(1,138)=2.774, p=.098, \eta^2_p=.02^{1,2}$	2.85	1.10	2.54	1.17

Note. Significant covariates included: <sup>1</sup>dating experience or <sup>2</sup>trust. P

the amount of actual information that our participants were likely to share with their fictional date. Participants who were presented with the attractive profile (and identical person description) indicated that they would be more likely to share more information about themselves than with a less attractive profile. Further exploratory analyses revealed that differences also arose in terms of the type of information being shared. Our participants suggested that when presented with a more attractive profile, that they were more likely to share information about where they live, about their family, their age, friends, dream job and to some degree their place of birth. These findings are therefore in line with the findings by Gibbs et al. (2011) who found that the perceived physical attractiveness of others is important in online communication and information disclosure.

We would also like to make another point here. As noted above, overall, actual information disclosure was not predicted by extraversion, trust, self-esteem and self-efficacy. This is important for the reliability of the results for our experimental conditions. If any of the personality constructs were found to predict actual self-disclosure as captured in our overall measure, then it would have been difficult to discern whether our attractive or unattractive profiles were sufficiently distinct to influence information disclosure. These results thus support our assumption that the two profiles were sufficiently distinct in terms of their physical attributes.

#### 4.1. Potential Limitations

Although a large amount of the research into self-disclosure has resulted in conflicting findings this is not to say that any are less valid than the others. The difference in results can most likely be attributed to certain features of the studies which differ from each other in terms of measures used (Posey et al., 2010), sampling (e.g., younger student samples), manipulations employed (e.g., Gaucher et al., 2013) and potential control variables that may influence self-disclosure (e.g., online dating experience

vs. perceived anonymity and perceived individualism in Posey et al., 2010). This would suggest that although our study does not match the results of previous work, generalizability issues may be the result of methodological, sampling and psychometric differences, not necessarily invalidating the merit of each research. And finally, we assume that our questions were quite clear to our participants. Dating websites usually ask its members to provide information about age, city of residence, and current family status. As a result, when we ask “Would you talk about where you live with James?”, we assume that participants would interpret this question in terms of where in a city they would live. Nevertheless, it is possible that these questions may have been interpreted in a different fashion than intended.

We will briefly discuss some of these in relation to the findings we obtained for self-esteem and self-consciousness. Conceptual overlap may explain some of the findings. For instance, the items designed to test self-disclosure may have been vastly similar to items that could potentially be testing for aspects such as online privacy perceptions and concerns. This may have been noticed more by those with higher self-consciousness concerns and lower self-esteem. In addition, since our survey involved primary self-report measures, it is possible that those with higher self-consciousness and lower self-esteem were more cautious about how they completed the measures. This could have led to potential reporting bias and personality profiles that were not entirely truthful (Janssens & Kraft, 2012). In contrast, trust and extraversion may not have featured a conceptual overlap to create concern, making them significant predictors of self-reported self-disclosure. Other methodological differences may potentially explain some of our results. Gaucher et al.’s (2013) experiment involved the actual manipulation of self-esteem. In contrast to the current study, Gaucher et al. (2013) therefore actively changed the perceived regard given to the participant from the person with whom they were interacting. Our study did not provide any feedback to participants. Therefore, the findings of previous

research may not transfer because although the same construct was investigated, different methodological approaches were utilized.

A related issue pertains to the attractiveness manipulation. Both pictures represented males of a similar age and race. While we ensured that the two photos had been evaluated in a pilot study with participants of similar age as those in the main study, it is possible that other factors in addition to attractiveness influenced participant responses. As a result, unknown third variables may have influenced responses. Similarly, while the use of a scenario created for the purposes of the study served as a logical choice in our study, we believe that it would have been useful if our findings could have been tested in alternative settings with actual online daters with a real profile (e.g., consider speed dating settings) to ensure ecological validity. This would test the generalizability of the findings and add to our knowledge about self-disclosure in romantic encounters in 'actual' online interactions (e.g., Eastwick, Hunt, & Neff, 2013). At the same time, various privacy and data protection issues arise when monitoring online communications for research purposes. In addition, it would be interesting to observe whether the same effects could be found in male participants if the study were to be replicated with images of attractive and unattractive females. A number of other personality measures and privacy-related constructs exist that may be worth considering as well (e.g., risk taking, privacy concern).

#### **4.2. Practical Implications and Future Research**

The results may have a practical real-world application in safety and privacy considerations online. As has been found within previous research, there is often an incongruity between the way in which individuals believe that they would act online, and their actual behavior when online, especially involving romantic interactions (e.g. Norberg, Horne, & Horne, 2007). According to this research, actual behavior on social network sites will differ from how the individual believes they would act in

certain situations online. This may then lead more extraverted or trusting people to act in ways that may potentially compromise their privacy or become a victim of cyber stalking when they have shared their home address or phone numbers (e.g., Al Hasib, 2009). This means that they may be more at risk to be tricked or manipulated by others into giving away sensitive information over the internet once the unknown other has established a level of trust, thus setting the stage for online identity theft (Kirda & Kruegel, 2005).

Many dating websites require participants to fill in personality-based questionnaires to assess potential fit with other members of the dating service. One immediate practical implication here is that this might help identify those members who are more trusting and extraverted, and hence more likely to reveal personal information about themselves. While dating sites will do their utmost to check the legitimacy of names and profiles of their members, it may be appropriate to make the members on such dating sites aware of the risks associated with sharing information that they use for identification purposes elsewhere. Or at least to encourage them to change the content or objects of their security questions, especially if these include pieces of information likely to be shared online with others (e.g., name of schools attended, pet's names, maiden names, place of birth). Therefore, if people were made to be more aware of how their own personality traits and other external factors can influence their online conduct regarding self-disclosure, this may increase their caution and attention to what information they are sharing with others.

There are a number of areas that merit further research. These relate to psychometrics and sampling, the generalizability of fictional scenario work, and the possibility of including further relevant variables in the analyses. In terms of future research, it may be worthwhile to consider a more diverse sample. The current work was conducted with a female student sample. Indeed, the majority of online and social network users are around college age (Waters & Ackerman, 2011). This raises concerns about ex-

ternal validity and the degree to which findings generalize to a non-student population. Future work in this area should consider incorporating a more representative sample (Kuss & Griffiths, 2011) as most internet dating site users are, on average, between the ages of thirty to forty (Ellison, Heino, & Gibbs, 2006).

## 5. CONCLUSION

The findings show that certain personality constructs and physical attractiveness of online profiles influence the way in which information is more or less likely to be shared in an online dating scenario. If individuals are more trusting and extraverted, they are significantly more likely to disclose a greater amount of personal detail about themselves. If the other person appears to be more visually attractive, self-disclosure increases as well. While sharing information is important to establish trust in new relationships, it is important to make individuals aware of the need to remain cautious in terms of what they reveal about themselves publicly or with unknown others on dating sites and social media.

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## ENDNOTES

- <sup>1</sup> <http://goodsecurityquestions.com/examples.htm>
- <sup>2</sup> <http://www.howtogeek.com/185354/security-questions-are-insecure-how-to-protect-your-accounts/>



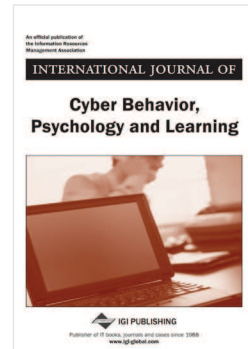
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