F*c*book: Swearing impacts impression formation on social media

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Abstract

The language we use can influence the impressions others form of us. Swearing is a taboo linguistic category often used offline with striking and often gender-specific results. Swear words are employed in informal online contexts such as social networks but their impact in such domains is unclear. To investigate the effect of swearing in online impression formation we asked 276 participants to view Facebook timelines containing swearing or no swearing, and form impressions of the timeline owners on dimensions of attractiveness, professionalism, and credibility. All data and code is available at <https://osf.io/acpgw/>. Swearing generally resulted in poorer impressions being formed. Female timeline owners who did not swear were considered particularly attractive. Men perceived female timeline owners who swore as more physically attractive, but less task attractive. Results are discussed in relation to online impression formation and employability.

Keywords: Facebook, social networking sites, online language, swearing, gender, attractiveness, professionalism, employability, credibility.

Introduction

Social networking sites (SNSs) are becoming increasingly utilized as social tools (Duggan et al., 2015). The largest of these is Facebook with over two billion active users (Facebook Newsroom, 2017). Facebook allows individuals to present themselves online by sharing different types of content and information on their timeline which others view and use to form impressions (e.g., Scott and Ravenscroft, 2017; Tong et al., 2008). Specific timeline content such as profile picture, friends' attractiveness, and number of friends impacts on impressions formed of timeline owners' attractiveness (e.g., Hong et al., 2012; Scott, 2014; Walther et al., 2008) while the language used in posts affects impressions of employability (Scott et al., 2014). Specific content can differentially impact impressions formed depending on the gender of the profile owner (Walther, et al., 2009). The use of swear words on social media provides an interesting extension to this research due to the context specific nature of arousal they elicit (Johnson and Lewis, 2010) and differences in their use and appraisal by men and women (Sapolsky, Shafer, and Kaye, 2011; Wang et al., 2014). The current study investigated the influence of swearing on social media on impressions formed of profile owners' on measures of attractiveness, professionalism, and credibility.

Online impression formation

Facebook's primary purpose is to maintain existing relationships, though it can also be used to initiate new relationships (Ellison, Steinfeld, and Lampe, 2007; Stefanone, Lackaff, and Rosen, 2011). Social media is most often used to communicate with friends and peers, share information and photos, and post comments (Garcia and Sikström, 2014). It is also used for educational purposes (e.g., Towner and Munoz, 2011), and increasingly in the employment sector, with employers utilizing SNSs as valuable sources of information on existing and potential employees (e.g., Bohnert and Ross, 2010).

SNS users accurately represent themselves online, viewing such environments as extensions of offline social space (Extended Real Life Hypothesis: Ambady and Skowronski, 2008; Vazire and Gosling, 2004). Online domains are, however, severely impoverished compared to offline domains, containing significantly fewer cues from which impressions can be formed. In such environments impressions of others are formed by taking into account two distinct types of cues or warrants: self-disclosures by timeline/profile owners, and statements by third parties (Warranting Theory: Walther and Parks, 2002). The latter are considered more reliable and usually attributed more weight in impression formation, and taken together these can be used to form accurate impressions of Facebook users' personalities (Back et al., 2010; Gosling, Gaddis, and Vazire, 2007).

Individual warrants, or Facebook timeline components, can affect impressions formed of timeline owners when manipulated in isolation (e.g., Scott et al., 2014). When investigating their effect on impression formation researchers have typically investigated three categories of perceived impressions: personality traits (e.g., Fullwood et al., 2015); social constructs such as popularity, and social-, physical-, and task attractiveness (e.g., Tong et al., 2008); and employability constructs such as intelligence, competence, and employability (Scott et al., 2014). For example, number of friends impacts impressions of extraversion and popularity (Tong et al., 2018; Utz, 2010); friends' attractiveness is associated with perceived physical attractiveness, and valence of posts interacts with target gender to influence perceived physical attractiveness (Walther et al., 2008); while valence and source both impact attractiveness (Rosenthal-Stott, Dicks, and Fielding, 2015). The source and focus of status updates and posts impact perceived attractiveness, confidence, modesty, and popularity (Scott and Ravenscroft, 2017). Such effects can be explained by the hyperpersonal model of online impression formation (Walther, 1996; 1997) which suggests that, because of the limited number of cues online, available cues will be attributed more weight than they would in richer offline

situations, often resulting in stereotyped impressions being formed (e.g., Hancock and Dunham, 2001).

Despite the impact of these components when manipulated in isolation, only a limited number have been identified as diagnostic warrants related to personality, i.e., components which are both indicative of an underlying personality trait of the profile owner, and which are utilized by viewers to form impressions of that trait (Hall, Pennington, and Leuders, 2010). Although Hall et al. (2010) identified 53 potential warrants in their study, several of these were related to the content of timeline posts and updates, but only four related to language use (use of emoticons, shorthand, laughter, and extended words/letters). Only one of these, extended letter/word use, was a diagnostic warrant related to extraversion. Use of text-speak impacts impressions formed of personality (Fullwood et al., 2015) and employability (Scott et al., 2014), but to our knowledge no other studies have examined the effect of online language use on impressions of social or employability constructs. Given the importance placed by viewers on largely text-based timeline content, and the findings of the few existing experimental manipulations of language on SNSs, this is an area worthy of further investigation.

Language online

Language use is indicative of personal characteristics such as emotion and personality (Pennebaker and King, 1999; Pennebaker, Mehl, and Niederhoffer, 2003). In relatively impoverished online environments such as SNSs, the language used by individuals represents a salient and potentially valuable indicator of their underlying personality. Language is utilized differently online than offline. Written language online is less likely to undergo a proof-reading or editing process than written language offline, and is more likely to be produced informally (i.e., not as part of a publication such as a book or newspaper) and is thus more likely to contain destandardized elements (Drouin, 2011; Fullwood, et al., 2015; Thelwall, 2008). This is

especially true in social media, where on sites like Facebook users are typically non-professional, writing for social audiences. Such destandardized elements include text speak, originally developed to facilitate language production on mobile devices, as well as homophones and abbreviations (Berger and Coch, 2010). Another common destandardized element are emoticons (typographic displays of emotional faces rotated 90°, e.g., “:-)”) and, more recently, smileys (also called *emojis*: actual pictures, often yellow emotional faces) which serve the twin functions of expressing emotion and disambiguating information (Ganster, Eimlner, and Kramer, 2012; Skovholt, Gronning, and Kankaanranta, 2014). Language use on SNSs such as Facebook is relatively informal even in comparison to other domains such as message forums (Kadir, Idris, and Husain, 2012), and is associated with lower levels of conscientiousness and neuroticism (Fullwood et al., 2015).

Use of destandardized language is related to offline ability: education level is a predictor of online spelling mistakes (Hargittai, 2006) and a negative correlation exists between text speak on SNSs and literary skill (Drouin, 2011). Scott et al., (2014) manipulated the language used in Facebook timeline content and measured its effect on perceived attractiveness and employability. While controlling for content, they presented status updates using correct English, ‘incorrect’ English (i.e., spelling/grammar mistakes), and text speak. While language use did not impact perceived attractiveness, timeline owners with updates containing incorrect language and text speak were rated less intelligent and employable than timeline owners using correct language, and those with incorrect language were also perceived to be less competent.

The use of swear words on SNSs represents an interesting extension to this research. Swear words are not common in formal offline printed text, and as such may be treated as destandardized language by readers. Evaluations of Facebook profile owners’ personality are less accurate when the profile content includes provocative information such as the use of

strong swear words in posts suggesting that the use of swear words on Facebook may directly influence the impression of an individual formed (Goodmon, et al., 2014).

Swearing

Swearing is a psychological and socio-cultural phenomenon and has been studied in relation to areas such as health, personality and gender differences (Jay, 2009). Swear words serve a unique communicative function allowing individuals to express and emphasise their emotional state (Wang, 2013). Swear words are a particularly interesting linguistic category as how offensive they are perceived to be varies widely depending upon a number of factors including the relationship between the speaker and the listener (Jay, 2009), age (McEnery, 2006), socio-economic status (McEnery, 2006), and the formality of the social setting (Johnson, and Lewis. 2010). As well as being influenced by sociolinguistic variables, different swear words elicit different reactions based on their severity. The British Board of Film Classification categorises swear words on a scale from very mild (e.g., sod, bitch etc.) to very strong (motherfucker, cunt) with very strong words being most offensive (McEnery, 2006). The social consequences of swearing are also varied. The use of profanity can facilitate bonding between individuals, whilst simultaneously alienating others (Selnow, 1985) and spontaneous swearing has been found to repel emotional support and undermine psychological adjustment, especially when the swearing represents aggression (Robbins et al., 2011).

Offline, males swear more frequently and swear more in the presence of their own gender rather than in mixed-gender interactions (Jay, 2009). Males have also been found to use stronger swear words when addressing males, and milder swear words when addressing females (Thelwell, 2008). On SNSs, males also use more swear words than females (Wang et al., 2014). Stronger swear words are associated with masculinity and milder swear words with femininity (Rasmussen and Moely, 1986). In addition to gender differences in the use of swear

words, women have been found to rate the swear words used on the television as significantly more offensive (Sapolsky et al., 2011) suggesting there may be an interaction between gender and impression formation when the use of swear words is manipulated.

Whilst swearing is often discussed as a negative behaviour, there are a number of potential positive consequences of swearing. The automatic emotional arousal that accompanies swearing has been argued to produce higher pain tolerance (Stephens, Atkins, and Kingston, 2009) and even increase strength (Stephens, Spierer, and Katchis, 2017). Swearing is regarded as more offensive the larger the gap in social status between the speaker and the listener (Jay and Janschewitz, 2008), however, it can also be used by the higher-status speaker to reduce the gap and promote social cohesion. The use of swear words makes speakers appear more credible (Rassin, and Van Der Heijden, 2007) and increased profanity use is associated with less lying and deception using both lab-based honesty and profanity scales, and a linguistic analysis of a large dataset of real-life social interactions on Facebook (Feldman et al., 2017). A positive correlation also exists between performance on tests of regular verbal fluency and taboo word fluency (Jay and Jay, 2013), suggesting individuals who swear have more developed vocabularies, and debunking the anecdotal poverty-of-vocabulary myth that people who swear do so because of an impoverished lexicon. Taken together, the relationship between swearing and impression formation appears to be a complex one, and the impact that swearing may have on online impression formation may be nuanced.

The Current Study

The current study aimed to examine the effects of swearing on impression formation in the specific context of Facebook. Considering previous findings of gender differences in perceptions of swearing (Sapolsky et al., 2011), and on interpretation of Facebook timeline content in relation to impression formation (Walther et al., 2009), we also manipulated target

(timeline owner) gender and measured participant gender. Participants viewed four manufactured Facebook timelines: a male and female each containing swearing or no swearing, and rated the timeline owners on dimensions of perceived attractiveness (social-, physical-, and task- attractiveness), perceived employability (intelligence, competence, and employability) and credibility (trustworthiness, honesty, and approachability). We predicted swearing would negatively impact perceived employability for all targets. We also predict that targets who swear will be rated higher in credibility dimensions than those who don't swear, and that this effect will be larger for male than female targets, because of the masculine associations of swearing. Finally we predict that male targets who swear will be rated higher on dimensions of attractiveness than females targets.

Method

Participants

A total of 276 volunteers (131 females; age 17–63 years, $M=27.94$, $SD=9.98$) participated. Nationalities of participants were 74.28% British, 13.41% European, 7.25% North American, 1.45% Australian, and 0.72% Middle Eastern. Participants were recruited via electronic advertisements, and were active Facebook users.

Design

A 2 (Language: Swearing, Neutral) x 2 (Target Gender: Male, Female) x 2 (Participant Gender: Male, Female) mixed design was used, with Participant Gender being the between-participants variable. The dependent variables were physical, social and task attractiveness measured on 5-item scales, and single-item measures of intelligence, competence, employability, trustworthiness, honesty, and approachability. All items were 7-point Likert scales, with seven being the maximum, one the minimum, and four the mid-point.

Materials

Stimuli

Participants saw screenshots of four Facebook timelines in total. These all had a standard layout with a profile picture, name, and banner picture across the top; a left hand column containing personal info, photos and friends thumbnails; a central column containing timeline information, and a right hand column containing year tabs and adverts. Each timeline contained five pieces of timeline content in the central column: one owner-authored status update, two owner-authored shared links, and two friend-authored posts. Specific posts and shared links were counterbalanced across condition. Posts were authored by one male and one female friend whose profile pics were avatars. Status updates were always presented at the top of the timeline (the most recent activity chronologically) and consisted of a single sentence containing either swearing or neutral. All timeline content was posted within the past 48 hours (the time being *X hours ago* for the top three pieces of content, and *yesterday* for the bottom two).

Swear words were taken from McEnery (2006) and normed by a separate group of 18 participants (9 Female; $M_{\text{age}}=35.78$, $SD_{\text{age}}=14.37$). The final list of 8 swear words and 8 non-swear words were controlled for length ($M_{\text{swear}}=5.13$; $SD_{\text{swear}}=1.55$; $M_{\text{non-swear}}=5.25$; $SD_{\text{non-swear}}=1.04$), and on 5-point scales of valence ($M_{\text{swear}}=2.63$; $SD_{\text{swear}}=0.62$; $M_{\text{non-swear}}=4.43$; $SD_{\text{non-swear}}=0.77$), and acceptability ($M_{\text{swear}}=3.39$; $SD_{\text{swear}}=0.99$; $M_{\text{non-swear}}=5.72$; $SD_{\text{non-swear}}=1.63$). The full list of sentences used are as follows (with non-swear/swear words in bold and underlined): “Getting a munch with my main **girls/bitches**”, “If anyone was to see me for the first time right now, they’d think am a right **idiot/cunt**...”, “Finally have my provisional – only a few **million/fucking** years late haha”, “Summer: when it is socially acceptable to act like a **fool/twat** in the sun :)”, “In a joke shop laughing my **head/arse** off at a puppet!”, “I really love it when **things/shit** just come/s together!”, “£30 for a game of football!? What **on**

earth/the fuck is the world coming to?”, “My drive into work made more stressful by **morons/wankers** on bikes ☹”. Because of the gender-specific content of some of the sentences these were counter-balanced within target gender.

All other content was controlled and counterbalanced, resulting in four groups of stimuli. The four profile pictures were taken from a set originally published by Welling et al (2007) and were controlled for attractiveness ($M_{\text{male}}=3.46$; $SD_{\text{male}}=1.51$; $M_{\text{female}}=3.11$; $SD_{\text{female}}=1.37$). Banner pictures were selected by the experimenters to be of neutral valence and were counterbalanced across condition. Personal information included home town and ‘lives in’, both of which were always major UK cities. There were nine photo thumbnails, selected to be mostly group shots which were counterbalanced across condition. Number of friends was always between 340 and 390, and each profile contained nine friends thumbs which were also counterbalanced across condition.

Measures

Physical, social, and task attractiveness were measured on 5-point, 7-item scales with seven being the maximum, one the minimum, and four the mid-point (McCroskey and McCain, 1974). All scales were reliable with Cronbach’s alphas of over 0.7: physical attractiveness (e.g., *I find him (her) very attractive physically*, $\alpha=0.750$), social attractiveness (e.g., *I think he (she) could be a friend of mine*, $\alpha=0.702$), and task attractiveness (e.g., *If I wanted to get things done, I could probably depend on him (her)*, $\alpha=0.722$). Intelligence, trustworthiness, honesty, approachability, competence, and employability were all measured by single item 7-point Likert scales, with seven being the maximum, one the minimum, and four the mid-point.

Procedure

Stimuli were presented to participants in one of four pseudo-random orders. Participants accessed the experiment via links posted on Facebook and Twitter. They were asked to view each timeline for as long as they wanted in order to form an impression of the timeline owner, and complete the questionnaire. The experiment was approved by the school's ethics committee and took approx. 10 minutes to complete.

Results

The results of the impression assessments are presented in three groups; attractiveness (social-, physical-, and task-attractiveness, $\alpha = .72$), professionalism (intelligence, credibility, and employability, $\alpha = .9$), and credibility (trustworthiness, honesty, and approachability, $\alpha = .8$). For each group of assessments, a $3 \times 2 \times 2 \times 2$ mixed ANOVA (assessment, language, target gender, participant gender) was conducted using the afex package (Singmann et al., 2017) in R 3.3.1 (R Core Team, 2016) and RStudio (RStudio Team, 2016). All data and code is available at <https://osf.io/acpgw/>.

Ratings of attractiveness

Mean ratings of the five-item physical-, social-, and task-attractiveness scales were include in the analysis for attractiveness (see Table 1 for descriptive statistics). A mixed ANOVA with Greenhouse-Geisser sphericity correction (see Figure 1) found that there were significant main effects of profile gender ($F(1, 274) = 26.34$, $\eta^2_G = .01$, $p < .001$, female profiles were rated more positively than male profiles), language ($F(1, 274) = 10.51$, $\eta^2_G = .004$, $p = .001$, the neutral condition was rated more positively than the swearing condition) and assessment ($F(1.75, 478.21) = 51.10$, $\eta^2_G = .03$, $p < .001$, ratings of physical attractiveness were lower than both social and task attractiveness ($ps < .001$) which were not significantly different from each other ($p = .13$)). There was no main effect of participant gender.

Table 1. Mean rating (SD) for each attractiveness assessment. Range 1-7.

	Female rater				Male rater				
	Female profile		Male profile		Female profile		Male profile		
Assessment	Neutral	Swear	Neutral	Swear	Neutral	Swear	Neutral	Swear	Total
Physical	3.91	3.73	3.76	3.77	4.04	4.24	3.71	3.58	3.85
Attractiveness	(0.98)	(1.08)	(1.12)	(1.06)	(1.06)	(1.21)	(0.96)	(0.91)	(1.07)
Social	4.33	4.08	4.13	4.07	4.37	4.08	4.27	4.04	4.17
Attractiveness	(0.88)	(1.08)	(0.98)	(1.09)	(0.95)	(1.01)	(0.98)	(1.01)	(1.00)
Task	4.43	4.31	4.17	4.08	4.53	4.24	4.06	4.04	4.23
Attractiveness	(0.78)	(0.93)	(0.96)	(1.03)	(0.87)	(0.95)	(0.89)	(0.85)	(0.92)
Total	4.22	4.04	4.02	3.98	4.31	4.18	4.02	3.89	4.08
	(0.91)	(1.06)	(1.03)	(1.07)	(0.98)	(1.06)	(0.97)	(0.95)	(1.01)

Figure 1. Mean ratings for each attractiveness assessment. Error bars represent 95% confidence intervals.

In addition to the main effects there were a number of higher-order interactions (full ANOVA report available at <https://osf.io/acpgw/>), including a significant four-way interaction ($F(1.74, 475.96) = 6.78, \eta^2G = .002, p = .002$). To aid interpretability, the results for each assessment are discussed separately in turn. All follow-up pairwise comparisons were Holm corrected.

For physical attractiveness, there were no significant differences between the neutral and swearing conditions for either profile gender or participant gender. There was no significant difference in the ratings given to male and female profiles in the neutral condition by men and women. However, whilst there was no difference between the ratings given to male and female profiles in the swearing condition by women, men gave significantly higher physical attractiveness ratings to female profiles in the swearing condition than to male profiles ($p < .001$). That is, female profiles benefitted from swearing when being judged by men.

For social attractiveness, there was no interaction between either gender and swearing condition, that is, there were no differences between male and female profiles in either swearing condition for either men or women (all $ps > .70$).

For task attractiveness, there were no significant differences between the neutral and swearing conditions for either profile gender or participant gender. For both men and women, there was no significant difference in the ratings given to male and female profiles in the swearing condition. However, whilst there was no difference between the ratings given to male and female profiles in the neutral condition by women, men gave significantly higher task attractiveness ratings to female profiles in the neutral condition than to male profiles ($p < .001$). That is, female profiles suffered more from swearing when being judged by men on task attractiveness.

Ratings of professionalism

Ratings of the single-item competence, employability, and intelligence scales were included in the analysis for professionalism (see Table 2 for descriptive statistics).

Table 2. *Mean rating (SD) for each professionalism assessment. Range 1-7.*

	Female rater				Male rater				
	Female profile		Male profile		Female profile		Male profile		
Assessment	Neutral	Swear	Neutral	Swear	Neutral	Swear	Neutral	Swear	Total
Competence	4.18	3.97	3.94	3.83	4.23	4.08	3.81	3.79	3.98
	(1.09)	(1.17)	(1.05)	(1.11)	(1.09)	(1.12)	(1.06)	(0.99)	(1.09)
Employability	4.41	3.92	4.05	3.83	4.32	4.09	3.84	3.85	4.04
	(1.13)	(1.37)	(1.31)	(1.44)	(1.18)	(1.25)	(1.07)	(1.16)	(1.25)
Intelligence	4.18	3.98	4.08	3.85	4.25	4.01	3.94	3.86	4.02
	(1.18)	(1.26)	(1.09)	(1.22)	(1.24)	(1.14)	(1.05)	(1.13)	(1.17)
Total	4.26	3.96	4.02	3.84	4.27	4.06	3.86	3.84	4.01
	(1.14)	(1.26)	(1.15)	(1.26)	(1.17)	(1.17)	(1.06)	(1.09)	(1.17)

A mixed ANOVA with Greenhouse-Geisser sphericity correction (see Figure 2) found that there were significant main effects of profile gender ($F(1, 274) = 23.45, \eta^2G = .01, p < .001$, female profiles were rated more positively than male profiles), and language ($F(1, 274) = 12.80, \eta^2G = .01, p < .001$, the neutral condition was rated more positively than the swearing condition). There was no main effect of participant gender or professionalism assessment.

Figure 2. Mean ratings for each professionalism assessment. Error bars represent 95% confidence intervals.

There was a significant interaction between assessment and profile gender ($F(1.82, 498.23) = 3.72, \eta^2G = .001, p = .03$), however, pairwise comparisons with Holm correction found that female profiles were rated more positively than male profiles on all three measures (all $ps < .01$) and that the interaction was due to gender differences between different measures (e.g., ratings for male competence were significantly different from ratings for female employability) and is therefore not of theoretical interest. Similarly, there was a significant interaction between assessment and language condition ($F(1.97, 540.45) = 3.06, \eta^2G = .0004, p = .05$), however, again, for all three measures the neutral condition was rated more positively than the swearing condition (see Figure 3) and the interaction is not of interest. No other interactions were significant.

Figure 3. *Interaction plots for profile gender (top) and swearing condition(bottom) by assessment.*
Error bars represent 95% confidence intervals.

Ratings of credibility

Ratings from the single-item honesty, trustworthiness, and approachability scales were included in the analysis for credibility (see Table 3 for descriptive statistics). A mixed ANOVA with Greenhouse-Geisser sphericity correction (see Figure 4) found that there were significant main effects of profile gender ($F(1, 274) = 12.31, \eta^2_G = .005, p < .001$, female profiles were rated more positively than male profiles), language ($F(1, 274) = 9.02, \eta^2_G = .004, p = .003$, the neutral condition was rated more positively than the swearing condition) and assessment ($F(1.89, 517.10) = 45.57, \eta^2_G = .02, p < .001$). Honesty ratings were significantly higher than both trustworthiness and approachability ratings ($ps < .001$) and approachability ratings were marginally higher than trustworthiness ratings ($p = .056$). There was no main effect of participant gender.

Table 3. Mean rating (SD) for each credibility assessment. Range 1-7.

	Female rater				Male rater				
	Female profile		Male profile		Female profile		Male profile		
Assessment	Neutral	Swear	Neutral	Swear	Neutral	Swear	Neutral	Swear	Total
Approachability	4.27	3.88	3.98	3.84	4.17	4.05	3.99	3.85	4.00
	(1.17)	(1.38)	(1.25)	(1.32)	(1.10)	(1.27)	(1.10)	(1.15)	(1.22)
Honesty	4.42	4.18	4.07	4.18	4.34	4.36	4.29	4.27	4.27
	(0.96)	(1.11)	(1.10)	(1.15)	(0.99)	(1.18)	(1.12)	(1.12)	(1.10)
Trustworthiness	4.11	3.85	3.88	3.79	4.19	3.95	3.89	3.81	3.94
	(1.09)	(1.17)	(1.04)	(1.17)	(1.00)	(1.04)	(1.03)	(1.00)	(1.07)
Total	4.27	3.97	3.98	3.94	4.23	4.12	4.06	3.98	4.07
	(1.08)	(1.23)	(1.13)	(1.22)	(1.03)	(1.18)	(1.10)	(1.11)	(1.14)

Figure 4. Mean ratings for each credibility assessment. Error bars represent 95% confidence intervals.

Finally, there was a significant interaction between assessment and language ($F(1.75, 478.73) = 4.77, \eta^2G = .001, p = .01$, see Figure 5). Holm corrected pairwise comparisons found that whilst swearing significantly lowered the ratings given to ratings of approachability ($p = .001$) and trustworthiness ($p = .001$), there was no effect of ratings of honesty ($p = .561$).

Figure 5. *Interaction between credibility assessment and language condition. Error bars represent 95% confidence intervals.*

Discussion

The aim of this paper was to assess the impact of swearing (vs. not swearing) online on the perceived attractiveness, professionalism, and credibility of Facebook timeline owners. To investigate this we also manipulated the gender of profile owners in our stimuli, and included participant gender in our analyses. It was found that, for the majority of

assessments, using neutral language provided an advantage over swearing, and females were rated higher than males, however several interactions with participant gender were found which add to the complexity of our findings. Results for the impressions formed of targets' attractiveness, professionalism, and credibility are discussed below.

The main effects for attractiveness suggest that not swearing and being a woman results in more positive ratings, however, interactions with participant gender paint a more complex picture. When women rated the profiles, the effect of swearing was not dependent on profile gender: there were no differences in the ratings given to male and female profiles for any attractiveness type in either the swearing or neutral condition. Yet for men there was an unexpected interaction with attractiveness type. Swearing led men to rate female profiles as less task attractive. This finding is in line with the stereotype that swearing is related to lower intelligence (see Jay and Jay (2015) for a discussion of the poverty-of-vocabulary theory of swearing) and it may be that this stereotype is exacerbated for women. However, for physical attractiveness, men gave more positive ratings to female profiles containing swearing. This is contrary to expectations: swearing is closely related to aggression and aggression is viewed as a masculine trait that men do not find attractive in women. One potential explanation may be linked to sociosexuality. More masculine women have more sexual partners, and a less restricted sociosexual orientation, than do less masculine women (Ostovich and Sabini, 2004). Differences exist in mate preferences for short-term and long-term relationships with physical attractiveness more important, and social status less important, in the short-term (Jonason, Webster, and Gesselman, 2013). It is possible that if swearing is viewed as a more masculine trait that is then linked to sociosexuality, that this may act as a marker for men that women who swear are more likely to engage in short-term relationships which would lead to higher attractiveness ratings. That said, as stated, this finding was unexpected and we did not collect the data to allow us to remove the sexual

orientation of our participants as a confound. Our potential explanation is somewhat tenuous and definitely post-hoc and therefore we suggest that this finding be replicated before drawing any firm conclusions.

For ratings of professionalism, our results suggest that it is better not to swear and that women are rated more positively than men. Swearing affected both male and female profiles and was judged negatively by both men and women, thus the negative effect of swearing on ratings of professionalism appears to be gender neutral. This may represent a shift in attitudes in that historically we may have expected an interaction with women suffering more from swearing than men given the association with, and therefore violation of, masculine gender norms (Rasmussen and Moely, 1986), however we did not find this. Whilst attitudes towards swearing may be becoming more liberal (Jay and Jay, 2013), our results demonstrate that there is still a cost of swearing, particularly in terms of professionalism, and we should bear this in mind when choosing what content on our social media is publicly available. These findings are also consistent with previous findings by Scott et al (2014) that unstandardized language (in their study text-speak and spelling errors) leads to lower ratings of employability than standardised language. It cannot be determined from these results whether swearing is simply viewed as another type of unstandardized language, or if there is an additional taboo associated with swearing which has a differential effect on impression formation.

Finally, for credibility, again we find that swearing resulted in more negative ratings and that overall women were rated more positively than men. Interestingly, we did not support the results of Feldman et al. (2017) who found a positive relationship between swearing and honesty. Whilst people who swear more may be more honest, it appears that the *perception* of those who swear is still mixed. Although there was little effect on measures of honesty, both approachability and trustworthiness were negatively affected by swearing suggesting that swearing is still a taboo and there is still a cost to breaking this taboo. The

finding that honesty was rated higher than both approachability and trustworthiness suggests what, while Facebook users may be aware that other users present themselves honestly on SNSs in terms of personality (Vazire and Gosling, 2004), they still hold reservations about trusting or meeting third parties who they know exclusively online.

In general, the consequences of swearing on social media appear to largely mirror those found offline. Swearing leads to more negative judgements, most clearly and strongly for measures of professionalism but the effects can still be found for attractiveness and credibility. It is also possible that the consequences of swearing online may be worse than swearing offline which may explain why we find negative effects on credibility despite more recent suggestions that swearing has positive consequences. Propositional, i.e., intentional swearing, is judged as more offensive than accidental or non-propositional swearing (Jay and Janschewitz, 2008). The use of written swear words is inherently propositional; it is far more difficult to accidentally swear in writing. As such, the judgements that are made about people who swear online may involve a secondary appraisal in that not only is the speaker's use of swear words judged but their decision to consciously publish their profanity is judged. Communication on the internet, and in particular on social media, may be viewed as a more informal, however, its largely written modality may well mean that effects of using certain types of language are highlighted.

Overall, female targets were rated more positively than male targets. Women typically score higher than men on emotional intelligence. As this dimension is a predictor of employability (Potgieter and Coetzee, 2013) it could explain these results. Previous studies (e.g., Scott et al., 2014) found higher employability ratings for female than male targets using samples where the majority of participants were also women. The fact that we replicate these findings, and find no difference between the ratings given by men and women, suggest that such perceptions are generalisable. Female targets were also rated as more credible than male

targets. The specific measures associated with credibility in this study were honesty, trustworthiness, and approachability. As women are less physically threatening than men this could explain the higher perceived approachability rating (e.g., Daniel, 2013), and all three of these measures could be viewed as more consistent with the nurturing female gender role also explaining the findings. These results were also independent of participants' gender. One area where participant gender did impact was on perceived attractiveness. As discussed above, swearing led female targets to be viewed as less task attractive, but more physically attractive, by men, possibly as a result of the masculinity associated with swearing.

This study did have a number of limitations. Firstly, although the measures of social-, physical-, and task-attractiveness were assessed using 5-item scales (McCroskey and McCain, 1974), the other measures – intelligence, competence, employability, trustworthiness, honesty, and approachability – were all assessed using single item measures. To our knowledge no multi-item measures of these dimensions exist. Some of these traits have been measured using single-items in previous studies (e.g. trustworthiness: Smith et al., 2009; approachability: Campbell et al., 2010; employability: Scott et al., 2014) and the reliability of single-item measures has been demonstrated (Wood and Hampson, 2005). We therefore consider the measures employed here to be valid. Secondly, the impressions formed by participants in the current study were of Zero-acquaintance relationships, where the targets of impression formation were not known in any way to the individuals forming impressions. While this is of theoretical interest, particularly in the area of online employability, it should be acknowledged that findings might differ if the individual engaging in online swearing is already an offline acquaintance, and the majority of relationships on Facebook exist between individuals who are already acquainted offline (Ambady and Skowronski, 2008). Finally, although perceived professionalism was measured, the majority of participants were likely undergraduate students and not employers actively engaged in recruitment, and so further

research is required to determine whether these results can be applied to generalised to recruiters. Specifically, what constitutes “employability” across employment sectors, how this is impacted by swearing, and how this interacts with both target and participant gender, should be investigated in future studies.

Two further areas in which our findings could inform future research are the developing complexity of the warranting theory of online impression formation (Walther and Parks, 2002), and on perceptions of swearing across different online domains. The current paper presented swearing exclusively in status updates by profile owners. Although third party information (i.e., on Facebook, content *not* produced by the profile owner themselves) has traditionally been considered to be more influential in impression formation than target-generated content (e.g., Walther et al., 2009), recent evidence suggests that the latter may hold more weight for some personality dimensions (e.g., confidence: Scott and Ravenscroft, 2017). Further research is required to determine the exact role played by swearing. This paper specifically investigated swearing on Facebook, an SNS principally utilized to self-present and to maintain social relationships (Ambady and Skowronski, 2008). Recent years has seen an increase in the number and diversity of SNS, with sites like Snapchat, Tumblr and Instagram joining Facebook and Twitter as widely utilized online communication platforms (Social-media.co.uk, 2017). Research into these sites is limited, but it is likely that they are each utilized by users for distinct purposes (Twitter, for example, is primarily utilized for information sharing purposes, e.g., Kwak, et al., 2010), and so the use of swearing on these platforms may have distinct impacts on impression formation.

In conclusion, this study examined the impact of online swearing on impression formation by investigating perceived dimensions related to target attractiveness, professionalism, and credibility. An overall advantage was shown for female targets over male targets, and for timeline owners who did not swear over timeline owners who did swear.

Men perceived female timeline owners who swore as more physically attractive, but less task attractive. These results provide insight into the role of swearing in online employability, and gender differences which persist in the way in which swearing is perceived.

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