What Elements of an Online Social Networking Profile Predict Target-Rater Agreement in Personality Impressions?

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Abstract

Social-Networking Websites (SNWs) like Facebook and MySpace are playing an increasingly prevalent role in everyday social interactions. But very little is known about the effectiveness of the various profile elements in conveying information about the personality of the profile owner. Here we examine 5,303 impressions made on the basis of a specially designed social networking website (http://www.YouJustGetMe.com) and on the basis of Facebook profiles. Our findings suggest that profile owners are generally seen by others as they see themselves; that when raters are judging unknown targets, rater-target agreement is stronger for female (vs. male) targets and for female (vs. male) raters; and several specific elements of profiles are associated with increased or diminished levels of rater-target impression agreement. The findings are important because they are the first to show how impression agreement may be affected by specific elements in SNW profiles.

Introduction

Social networking websites (SNWs) such as Facebook and MySpace are playing an increasingly prominent role in everyday social interactions. The particular role of SNWs varies across relationships—in some contexts SNWs supplement existing real-world social networks but in other contexts, interactions can be entirely mediated by SNWs [12]. People may even use them to gather information on others (e.g., prospective employers; marketers) [1]. The result of all these changes is that SNWs have become a central medium of interpersonal perception. But how effectively do SNWs convey information about the profile owner? Are some elements more informative than others? Are there any elements that actually impede the flow of valid information? The present paper examines these questions in two SNW contexts—an SNW in which profile owners have their personalities rated by strangers and a Facebook application allowing visitors to rate the personalities of people on the basis of their Facebook profiles.

The Realistic Accuracy Model (RAM), developed by personality psychologist David Funder [2,3], is the most fully developed system for understanding the parameters that can influence the quality of judgments. Funder

proposes four parameters, which are associated with four questions that can be asked about judgments: (1) Are some *traits* associated with better judgments than others? (2) Are some *judges (or raters)* better than others? (3) Are some *targets* more easily judged than others? (4) Do some forms of *information* (e.g., movie preferences vs. photos of the target) elicit better judgments than others?

There are several different metrics for evaluating the quality of a judgment [8]. One common metric is the accuracy of the judgment; that is, do the judgments of a target reflect what that target is really like? However, in the present research we are interested in whether the target (i.e., profile owner) is able to successfully convey information about him or herself, regardless of whether the target's self-view is accurate. If a target believes she is extraverted, even if in reality that is not true, the relevant question is whether the target can bring others to see her as she sees herself [10]. Therefore, the relevant metric for evaluating judgment quality is self-rater agreement, which we refer to as "impression agreement."

Research Questions

The first of Funder's questions (Are some traits easier to judge than others?) was addressed in previous research. Gosling, Gaddis, and Vazire [4] examined personality impressions based on Facebook profiles, and found that agreement was strongest for ratings of extraversion and openness to experience and weakest for ratings of emotional stability. The present study was designed to examine the remaining three questions:

Research Question 1 (RQ1): Are some judges better than others? In particular we examine whether there are sex differences in judgmental ability in the context of SNWs.

Research Question 2 (RQ2): Are some targets more easily judged than others? In particular we examine whether there are sex differences in judgability in the context of SNWs.

Research Question 3 (RQ3): Do some forms of information elicit better judgments than others? Previous research has examined broad moderators of impression agreement, showing for example, that agreement is strongest for traits that are observable, non-evaluative, and associated with the personality domain of extraversion [7]. However, it is not known which specific elements of information promote successful judgments. We examine

the degree to which 33 specific elements (e.g., the target's nomination for a "great book," or the "proudest thing I ever did") predict impression agreement. It has long been assumed that more information is better. But are there elements that actually distort impression agreement? It is possible that some forms of information lead judges astray, perhaps by activating false stereotypes [8]. Therefore, RQ3 is broken down into two narrower sub-questions: *RQ3a: What specific elements of SNWs promote impression agreement?* And *RQ3b: What specific elements of SNWs hinder impression agreement?*

Method

Materials
To create a realistic environment in which to examine our research questions, a fully functional social networking website was built under the name http://www.YouJustGetMe.com. The site was equipped to allow participants to create and view profiles, send and receive messages, and browse for others. Additionally, to examine the generality of the effects, an application was built and launched on the Facebook Platform. Facebook is a social utility with 64 million active users.

To register and use YouJustGetMe, participants were required to provide their gender, date of birth, and an anonymous display name. All participants also completed a self-assessment of personality using the Big Five Inventory (BFI-K Form S) [6] in which they rated their agreement on 5-point Likert scales with 21 personality statements that began with "I see myself as someone who…" Participants also answered 19 additional 5-point semantic-differential scales loosely designed to tap attitudes ("left of center" vs. "right of center") and preferences ("a wine person" vs. "a beer person") in a fun and engaging way.

Participants
Student participants were invited to use the website and Facebook application via three sources: (a) an introductory psychology class at a large university in the western United States, (b) invitations forwarded from members of a listserv for the Society of Personality and Social Psychology, and (c) invitations forwarded from other YouJustGetMe participants. At the time of analysis, 5,754 participants had joined the site (4,457 via Facebook, 1,297 via www.YouJustGetMe.com), but only the data from 5,216 participants who were 18 or older were analyzed.

Procedure
Participants were encouraged to upload a profile picture and to "give clues about your personality so people can guess what you're like" by completing any of 33 pre-defined fields. The fields, which were chosen to encourage self-disclosure on a diverse array of informational sources, are listed in Table 1. None of the fields nor the picture were

Table 1. Profile elements as predictors of impression agreement.

Elements with Sig. Positive Betas	Beta	p-value
A link to funny video	0.096	0.000
What makes me glad to be alive?	0.089	0.007
Most embarrassing thing I ever did	0.074	0.018
Proudest thing I ever did	0.057	0.063
My spirituality	0.051	0.044
A great person	0.060	0.048
I believe this	0.040	0.080
Elements with Sig. Negative Betas	**Beta**	**p-value**
Profile picture was a non-person	-0.128	0.003
An awful website	-0.079	0.003
An awful person	-0.065	0.028
A great book	-0.066	0.037
Elements with Non-sig. Betas	**Beta**	**p-value**
Letters after my name	0.015	0.429
My relationship status	-0.028	0.411
My relationship saga	-0.016	0.489
My political leanings (5pt. scale)	0.007	0.725
My political views	-0.023	0.312
A link to my other profile	0.003	0.884
A link to great art	-0.005	0.845
My career path	0.034	0.268
A great song	0.019	0.557
An awful song	-0.004	0.866
A great movie	-0.033	0.437
An awful movie	-0.039	0.156
An awful book	0.040	0.115
Delicious food	-0.034	0.441
Terrible food	0.043	0.151
A great website	-0.027	0.310
A great company	0.020	0.436
An awful company	0.028	0.340
Best time I ever had	0.017	0.563
Worst time I ever had	-0.014	0.672
What have I been up to lately?	-0.013	0.650
What drives me crazy?	-0.041	0.207
Profile picture was a face/bust shot	-0.016	0.595

required, and participants could complete the fields any way they wished.

On each subsequent visit to the YouJustGetMe site (but not the Facebook application), participants were randomly assigned to view the profile of another site user. This was accomplished via a special box on the home page that displayed the username and thumbnail picture of another participant pulled at random from the database. The random target was shown until he or she was rated or a new website session was begun. Only the impressions of randomly displayed targets were analyzed from the YouJustGetMe site, although raters could form impressions of any other participant they found through browsing or searching the site. Moreover, because random targets were not shown again in the random box after being rated, only raters' first impressions were analyzed from the YouJustGetMe site, and subsequent re-ratings were excluded.

Raters formed impressions of targets by completing the same 40 items that were used in the self-ratings (including the 21 personality items), only this time under the instructions "I see [target's display name] as someone who..." As shown in Figure 1, The movable rating form floated above the targets' profiles, allowing raters to view the profiles and make ratings simultaneously.

Figure 1: Sample YouJustGetMe profile and floating impression questions.

Both the rater and target received feedback about the impression as a reinforcer. As shown in Figure 2, the feedback included a bar graph showing the extent to which the rater's impression agreed with the target's self-impression (see Measures section below), as well as two bubble graphs depicting the impression and the self-ratings on the Big-5 personality domains. Because only first impressions were analyzed here, that is, ratings made before any feedback about a given target was shown, the effect of feedback on the impressions reported here was indirect at most.

Participants on Facebook completed a similar procedure except that no random assignment was implemented and they could choose to rate whomever they wished. In addition, the architecture of Facebook and the YouJustGetMe application made it more likely that the dyads were better acquainted than on YouJustGetMe.com. Specifically, the impression questions were imbedded in Facebook profiles (see Figure 3) which are only visible to
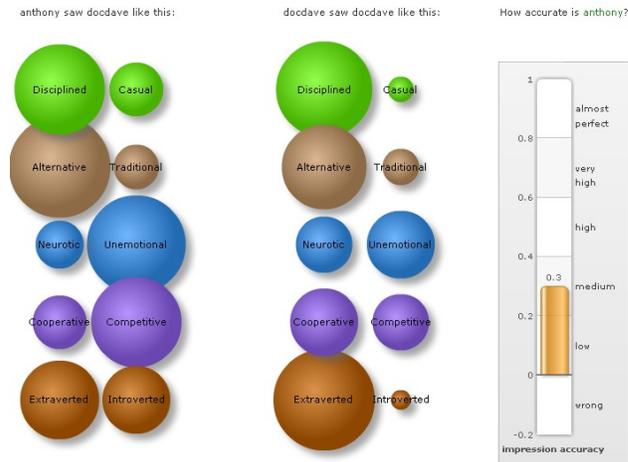

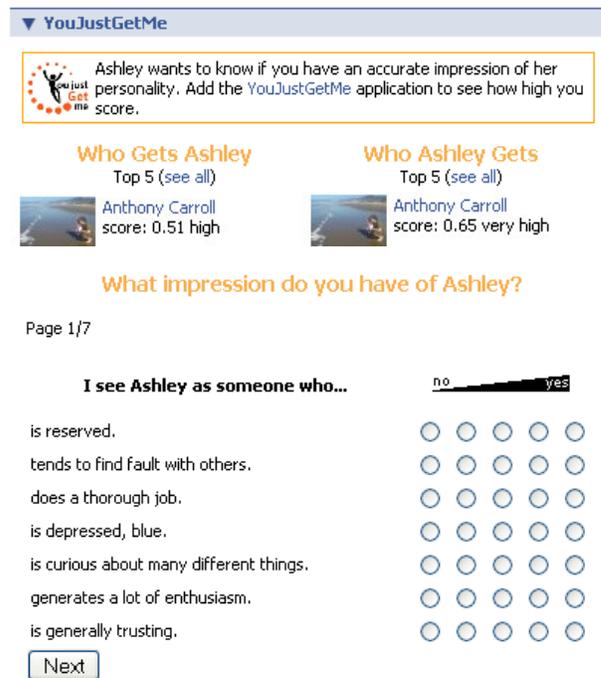**Figure 2: Sample YouJustGetMe feedback.**

Figure 3: YouJustGetMe application on Facebook

people who have befriended each other or are in the same network (e.g. university). Moreover, the primary recruitment of new participants on Facebook was via invitations from current participants.

Measures

For each dyad, the 40 ratings of the target made by the rater were correlated using a Pearson r with the 40 self-ratings that the target made about him or herself, as is the practice in impression-formation research [2,3,4,5,8,11,13]. Thus, this statistic, termed "impression agreement," measured the degree to which the rater saw the target as the target saw him or herself.

Analysis of Profile Elements

To analyze the profile elements, multiple regression was conducted on data from the randomly assigned dyads on the YouJustGetMe.com website. The level of analysis is the dyad, as impression agreement necessarily involves both a rater and a target. Thus the criterion variable in the regression equations was impression agreement (the correlation between the rater's ratings and the target's self-ratings for each dyad).

The predictors in the equation included 33 binary variables indicating simply whether a particular profile element was or was not answered by the target (e.g. a great movie, an awful movie; see Table 1.) By entering all profile elements in the same regression equation, the unique relation of each with impression agreement could be tested while controlling for all others.

Several additional variables were controlled for to help isolate the unique relationship between profile elements and impression agreement. These included the age and sex of the rater and target, the similarity in personality between each dyad's members (as measured by the Pearson r between the rater's self-ratings and the target's self-ratings) and the extent to which the rater assumed his or her personality was similar to the target's (as measured by the Pearson r between the rater's impression and the rater's self-ratings - sometimes referred to as projection [8]).

To test the effect of a picture on impression agreement, we entered into the equation dummy codes that represented whether the profile picture was a facial/bust shot, or a non-person (e.g., a pet, a landscape, or farm machinery), or other (multiple people, face obscured or too distant, etc.). This was done because all profiles included in the random assignment were required to have a photo, it was of practical interest, and because it equated targets on the ability to upload a photo.

The regression analyses were performed on both the raw and Fisher-z transformed impression-agreement correlations. The results were equivalent in both sets of analyses so we report the findings based on the raw correlations because they are easier to interpret.

Results

Overall Agreement

In all, 819 first-impressions of randomly assigned dyads were collected on YouJustGetMe.com, and 4,484 impressions were collected on Facebook (where both rater and target were 18 or older). Two-thirds of the participants were women, and this proportion held across the two websites and the choice of people to rate. Overall impression agreement was substantial (mean r = .41) but also showed considerable variability ($\underline{SD}$ = .21). Therefore, we next tested whether the variability in impression agreement was associated with qualities of the judge (RQ1) or the target (RQ2).

Gender and Context Effects

An analysis of covariance (ANCOVA) model tested whether impression agreement differed across rater gender, target gender, and context (Facebook or randomly assigned YouJustGetMe.com), while controlling for the age of the rater and target.

The context in which the impression was formed showed a significant difference on impression agreement, $\underline{F}(1,5293) = 170.4$, $\underline{p} < .001$. Impressions made on Facebook showed higher average agreement (r = .42) than impressions made among randomly-assigned dyads on YouJustGetMe.com (r = .29).

This context effect was qualified by two significant two-way interactions, including the interaction of rater gender and context, $\underline{F}(1,5293) = 12.5$, $\underline{p} < .001$, and the interaction of target gender and context, $\underline{F}(1,5293) = 9.8$, $\underline{p} = .002$. The three-way interaction was not significant, $\underline{F}(1,5293) = 1.92$, $\underline{p} = .17$.

As shown in Figure 4, the two-way interactions occurred because on YouJustGetMe, female raters (r = .33) were much better than male raters (r = .25), whereas on Facebook female (r = .43) and male raters (r = .42) were comparable in their impression agreement. As well, Figure 5 shows that impressions made of women on YouJustGetMe were much more likely to agree with their self-ratings (r = .34) than those made of men (r = .24), whereas on Facebook impressions of women (r = .44) and men (r = .41) were about the same in agreement with self-ratings.

Profile Elements Predicting Agreement

As shown in Table 1, certain profile elements were associated with an increased likelihood that visitors to participants' profiles would see them as they saw themselves (RQ3a). When participants made statements about their spirituality, beliefs, joys, embarrassing moments, proud moments, heroes, and when they gave links to funny videos, the impression agreement was significantly higher.

However, the majority of profile elements showed no relationship with impression agreement, including favorite
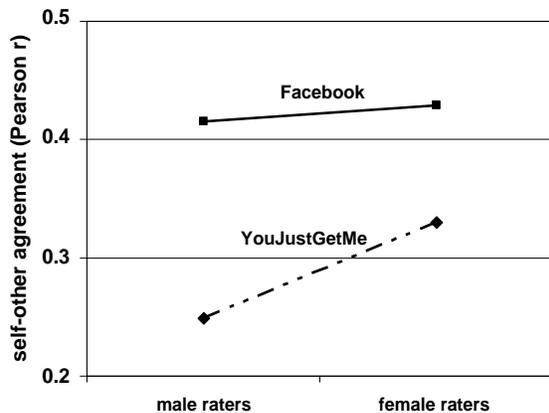
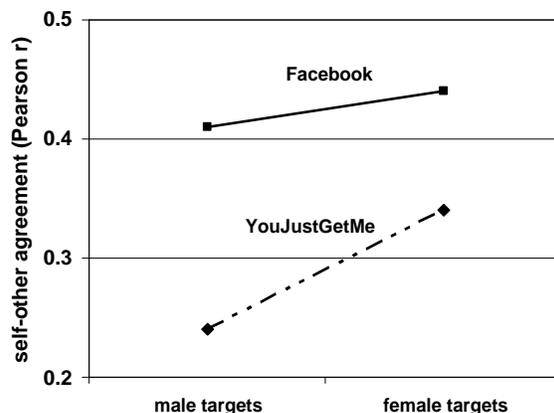**Figure 4. Impression agreement by rater sex and website.**

Figure 5. Impression agreement by target sex and website.

and least-favorite songs, movies, and food. Information about political attitudes and relationship history also did not help people "get" others.

Still other elements were actually associated with decreased impression agreement, indicating that this information actually put one at risk of being less understood than if it were omitted (RQ3b). Participants who posted pictures of non-persons showed lower impression agreement, as did those who named awful people or websites (the counterpart to great people and websites). Unexpectedly, naming a great book was also associated with decreased impression agreement.

In contrast to the ANCOVA findings reported above that tested the effects of rater and target sex in isolation, when the rater and target sex were entered into the full model with all 33 profile elements, their effects on impression agreement were rendered nonsignificant (ps = .81 and .26 respectively). Further tests were

conducted to determine whether the gender effects reported above might be mediated by which profile elements male and female targets chose to answer. Female targets were not significantly more likely to upload a picture of their face than male targets (75% and 79% respectively, Chi-sq = 1.0, p = .18), nor to simply answer more of the 33 profile elements (means = 18.3 and 17.4 respectively, p = .209). However, female targets were significantly more likely than male targets to disclose answers on the profile elements that were better predictors of impression agreement, including: relationship saga, proudest thing I ever did, most embarrassing thing I ever did, best time I ever had, worst time I ever had, what I've been up to lately, what drives me crazy, what makes me glad to be alive, ps < .05. By contrast, male targets were significantly more likely than female targets to disclose: political views, great art, awful person, awful movie, and awful website ps < .05.

Discussion

The findings presented here show that: (a) SNW profile owners are generally seen by others as they see themselves (i.e. impression agreement was substantial); (b) impression agreement was associated with context (agreement was stronger on the basis of Facebook profiles than on YouJustGetMe profiles); (c) within the context in which raters were judging unknown targets (i.e., YouJustGetMe profiles), women were better raters than men and were rated with higher levels of agreement than men; and (d) several specific elements of the profiles were associated with increased or diminished levels of impression agreement. The findings are important because they are the first to show how impression agreement may be affected by specific elements in SNW profiles.

The findings also raise a number of questions to be addressed in future research. First, why were effects of rater and target gender found for the YouJustGetMe profiles but not for the Facebook profiles? There are several theoretically important differences between the two profiles that can inform this question. The Facebook profiles generally have a much greater amount of information on them (e.g. many photos, wall comments from friends) than the YouJustGetMe profiles. And it was highly likely that the raters were acquainted with the owners of the Facebook profiles but not with the owners of the YouJustGetMe profiles. These differences probably explain why impression agreement was substantially stronger for the Facebook targets (r = .42) than for the YouJustGetMe targets (r =.29). It is quite possible then that impression agreement had reached a ceiling for the Facebook profiles. Thus, it was only for the YouJustGetMe profiles, where the judgmental task was more challenging, that differences in the rating ability and judgability of males and females could be expressed.

Second, numerous elements of profiles were shown to be associated with impression agreement but the question remains open as to whether they causally affected the increases (RQ3a) and decreases (RQ3b) identified here. Our research design, which was crafted to optimize ecological validity, can reveal which profile elements were associated with increased impression agreement but future experimental designs are needed to determine whether raters actually drew on those elements when they formed their impressions. Moreover, future studies will be needed to examine what it is about the attributes that contributed to them positively (vs. negatively) influencing impression agreement; an inspection of the items suggests that agreement is promoted by items that go deeper than traits and preferences to tap issues of values and identity [9] but systematic analyses of these issues is clearly warranted.

Third, our mediational analyses suggest that females may elicit more impression agreement than males by disclosing more revealing information that is disclosed by males. However, more experimental work is needed to establish whether this differential selection of profile elements between females and males is what drives the gender differences in judgability.

As online SNWs become increasingly prevalent in everyday interpersonal perception contexts, work is needed to determine how, when, and why this particular medium promotes accurate and inaccurate judgments about others. The data presented here suggest that the online social networking websites are a generally effective means of communicating information about an individual's personality. Moreover, the findings point to several specific cues that may serve to increase or decrease the effectiveness with which information is conveyed about SNW profile owners. Future research should focus on identifying the causal role of the profile elements in conveying information about individuals and exactly what it is about these information sources that makes them so informative or mis-informative.

Acknowledgements

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