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Risky Business: Assessing Personality Through LinkedIn

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Abstract

LinkedIn is a widely popular professional networking site across the world, and represents an increasingly used tool in the recruitment process. The platform contains valuable information about potential candidates with regards to their education and work experience, and often more dynamic and relational information than the traditional resume. This study aims to narrow the gap between current practices of inferring candidate characteristics and traits using LinkedIn and the research thereof, by assessing the accuracy of such inferences with regards to personality traits. The sample of raters in this study consisted of people both with and without professional recruitment experience. The results support that it is possible to infer two out of the Big Five personality traits, namely openness to experience and extraversion, and that extraversion can be more accurately inferred than openness to experience. Further, the results suggests that recruitment professionals are not better at judging personality than laypeople. This study highlights the importance of constructing valid and standardized methods for information collection on LinkedIn, to ensure a fair and accurate evaluation of candidates.

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Introduction

In 2018, we spend a large proportion of our time online, and we do so across many different digital platforms. Along with a steadily increasing number of social networking sites (SNS), like Facebook and Twitter, comes the emergence of niche networking sites (NNS), such as LinkedIn. NNSs target different user segments based on a range of psychographic, demographic, and geographic characteristics (e.g., Boyd & Ellison, 2008; Dunne, Lawlor, & Rowley, 2010; Willett, 2009). The NNS LinkedIn has, since its establishment in 2003, become the world's largest professional network, and currently has more than 560 million users across more than 200 countries and territories worldwide (LinkedIn, n.d.a). Over the last years, such platforms have been increasingly used for social media assessments, which can be defined as "the review of online information from websites/platforms designed to connect individuals (e.g., Facebook, LinkedIn, Pinterest) for use in employment decisions (e.g., selection, promotion, reassignment)" (Roth, Bobko, van Iddekinge, & Thatcher, 2016, p.271). For such purposes, LinkedIn has long been considered the preferred and the most widely used networking site (e.g., Karl & Peluchette, 2013; Kluemper, 2013; Pisano, Lepore, & Lamboglia, 2017), also outside of the USA (Karl & Peluchette, 2013; Ollington, Gibb & Harcourt, 2013).

In spite of the sharp increase of social media assessments, there is an evident lack of research on the use of LinkedIn in this regard (Zide, Elman, & Shahani-Denning, 2014). Initial studies have focused on the extent of its use (Baruffaldi, DiMaio & Landoni, 2017; Blank & Lutz, 2017; LaPoe, Olson & Eckert, 2017) and user behaviors (e.g. self-promotion, self-presentation and motivations) (Dietel, 2017; Florenthal, 2015). However, research is lacking with regards to the actual value of using LinkedIn in recruitment processes, in terms of which inferences can be accurately made about profile owners based on the information available on their user profile. This is an important area of study, as researchers such as Bohnert and Ross (2010) have found that recruiters are likely to not only gauge candidates' work experience, but infer personality characteristics based on their impression. The accuracy of such inferences remain unclear, as it has been subject to scarce empirical scrutiny. Indeed, the use of social media assessments (using LinkedIn) in organizational practices has progressed much faster than scientific research on this topic. The potential misinterpretations or faulty conclusions that may result could have significant consequences for individual career progress, organizational recruitment quality and the society at large (Roth et al., 2016).

Brown and Vaughn (2011) found that there were no established standardized and systematic approaches to the social media assessment of LinkedIn profiles for the inferral of personality and other characteristics. We find no evidence that this has changed. Moreover, when assessing LinkedIn profiles, there are several potential pitfalls that can color the judgments made and affect their validity, such as the presence of irrelevant information or the absence of sufficient information. This highlights the importance of research on the use of LinkedIn in recruitment processes, especially given the extent of its use today and the effect it may cast on the career prospects of a large proportion of LinkedIn users (Roth et al., 2016). This study aims to gauge the value of LinkedIn assessments in considering job candidates, and narrow the gap between current recruitment practices using LinkedIn and the research thereof, through answering following research question:

To what extent can accurate inferences be made about LinkedIn users' personality traits through the evaluation of their profiles?

Our research will shed light on the usefulness of LinkedIn in the recruitment process when sourcing and screening job candidates. The answer to our research question carries with it important practical implications. If inferences made about profile owners are found to be sufficiently accurate, it provides support for current practices of LinkedIn use in recruitment. If the inferences made are greatly inaccurate, however, it would question the validity of the current practice and thereby its extensive use in candidate evaluations today. Indeed, a highly problematic issue in the use of LinkedIn and other SNSs in the screening or selection of candidates is the scarce evidence in support of its appropriateness as an information gathering method. With an absence of well-documented evidence, the conclusions drawn by recruiters on the basis of profile assessments may be dubious and may lead to undocumented and potentially discriminatory practices.

LinkedIn

Ellison and Boyd (2013) describe SNS as follows:

> a *networked communication platform* in which participants 1) have *uniquely identifiable profiles* that consist of user-supplied content, content provided by other users, and/or system-level data; 2) can *publicly articulate*

> *connections* that can be viewed and traversed by others; and 3) can consume, produce, and/or interact with *streams of user-generated content* provided by their connections on the site. (p.9)

SNSs allow for mutual connections and the option of viewing and accessing people's personal profiles, containing customized and personal information provided by the individual in question (Florenthal, 2015). LinkedIn, with a mission to "connect the world's professionals to make them more productive and successful" (LinkedIn, n.d.a), is arguably the most preferred professional networking site worldwide to this date (van Dijck, 2013). LinkedIn provides means for professionals to connect, share knowledge, experience, and information about candidates for employment (Caers & Castelyns, 2011; Zide et al., 2014). It differs from other social networks, such as Facebook, in several ways, particularly in how user profiles contain professional information for self-promotion purposes. Thus, it resembles "formatted CVs containing only the most relevant facts on education, current and past positions, as well as former experience" (van Dijck, 2013, p.208). Another important distinction is that members of LinkedIn can use the site resources to identify employment opportunities, recruit potential candidates for employment, and stimulate inter-company communication (e.g., Bradley, 2011; van Dijck, 2013). Moreover, Myers, Czepiec, Roxas, and Whitson (2011) found that a central motivation behind LinkedIn usage was a need for career advancement, such as finding a new job or an internship.

The use of LinkedIn in recruitment processes. The use of LinkedIn as a tool for researching potential job candidates has increased vastly over the last years (Zide et al., 2014). Already in 2015, 28% of recruiters reported that they looked at a candidate's social media profile immediately after receiving their application (Statista, 2018). Indeed, LinkedIn provides access to sourcing services, such as LinkedIn Recruiter, which allows recruiters to use advanced filters and other organizing tools in the search for potential candidates (LinkedIn, n.d.b). Today, when applying for a job or engaging in a professional relationship, one is likely to be researched online.

As LinkedIn profiles are dynamic and accessible for all users of the platform, recruiters can gain more knowledge of applicants' qualifications and background than through more traditional resumes. For instance, LinkedIn profiles provide more relational information (e.g., by displaying an individual's

connections) as well as information from third parties (e.g., through endorsements). LinkedIn profiles also include other options such as listing interests and sharing posts, which further distinguishes the platform from the traditional resume.

By using the platform in recruitment efforts, organizations incur minimal costs and the process demands little effort, when considering the information accessed and gained (e.g., Kluemper, 2013; Brown & Vaughn, 2011). The information collected may verify or contradict the candidate's resume (e.g., certifications and work experience). Moreover, the rich and detailed information that is often accessible may allow potential employers to form impressions about characteristics or competencies of the candidate(s) (Brown & Vaughn, 2011). For instance, some argue that social media assessments can contribute in judging the person-organization fit (e.g., Roulin & Bangerter, 2013) and detecting counterproductive work behaviors (e.g. candidates defying confidentiality agreements or bad mouthing colleagues and/or superiors).

Given that the use of LinkedIn in candidate evaluation is likely to have an effect on the career prospects of the profile owners, the process of collecting and interpreting information from the site should be carried out cautiously. The 2017 CareerBuilder survey collected data from 2380 employers in the US across several industries and organizational sizes in the private sector. It found that social media is used more than ever before to screen candidates (CareerBuilder, 2017). More specifically, the survey found that 70% of employers screen candidates using social media, which is 11% more than in 2006. Moreover, the likelihood of interviewing a potential candidate decreases with 57% if employers are not able to find the candidate online and 54% of employers have refrained from hiring a candidate based on the social media profiles of the given candidate. Reasons for the latter included information reflecting poor communication skills, the posting of inappropriate information, or discovering information that was incongruent with the candidate's resume.

However, the CareerBuilder survey (2017) results also indicated that 44% of employers had discovered information about candidates through SNSs that resulted in a decision to hire the given candidates. Reasons accounting for this tendency included finding information that supported professional achievements, qualifications and solid communications skills. Thus, managing one's online profile on SNSs may also facilitate career progress.

Findings like the aforementioned clearly showcase the impact LinkedIn presence, or absence, may have on professional careers. This makes the study of LinkedIn use in recruitment and selection decisions important.

However, it should be noted that recruitment efforts rarely rely solely on LinkedIn. Zide and colleagues (2014) concluded that while some recruiters employ LinkedIn as a substitute for the traditional resume, the majority use it as a support function or an additive in the traditional recruitment process. In accordance with this notion, a study by Caers and Castelyns (2011), focusing on Belgian recruitment and selection professionals, found that LinkedIn represented an extra tool in the recruitment process. Nevertheless, the research of its use remains important given its widespread use.

Pitfalls and Biases. As previously mentioned, there do not seem to be standardized or systematic approaches to the evaluation of LinkedIn profiles (Brown & Vaughn, 2011). Indeed, given the variation in the type and amount of information LinkedIn users make publicly available on the platform, a standardized information collection process can be challenging, as recruiters will face difficulties in gathering comparable pieces of information across candidates. Brown and Vaughn (2011) explain, when there is no documented validity of the inferences we make when assessing SNS profiles, recruitment decisions are likely to be weak or impaired. To further complicate matters, a number of mental mechanisms and variables can bias the LinkedIn profile evaluation process, and lead to faulty or imperfect conclusions. For instance, judgments can be colored by both the quantity of information provided, the presence of irrelevant information, and the presence of idealized information.

Quantity of information. Information quantity has proven to be a variable of importance, when assessing LinkedIn profiles. The CareerBuilder Survey from 2017, for example, found that online absence could substantially decrease the likelihood of being selected for an interview. However, the mere presence on LinkedIn does not necessarily improve career prospects. Due to the option of customizing one's LinkedIn profile, there is great variability with regards to the amount of information that is made available to recruiters. This reflects a source of one potential bias, in that profiles with different amounts of information can be assessed differently. For instance, the Inferred Information Model (e.g., Johnson, 1987; Johnson & Levine, 1985) suggests that missing information can be interpreted as suspicious, leading to the question of why a given piece of

information is left out. In recruitment processes, such a tendency may lead to certain candidates being evaluated more poorly than others who make more information available. In addition, findings by Jaccard and Wood (1988) suggested that missing information can make assessors place an average or below average value to the unknown information. For instance, if candidates do not list team working skills on their profile, they might be evaluated as below average with regards to that competency. Moreover, some literature suggests that missing or incomplete information may lower the overall evaluation of a potential candidate (e.g., Ebenbach & Moore, 2000; Yates, Jagacinski, & Faber, 1978).

Another way in which missing information can affect the evaluation of a candidate is through the Fundamental Attribution Error (e.g., Harvey, Town, & Yarkin, 1981; Ross, 1977). This means that the available information is interpreted as representative for an individual, without taking the context into account (Jones & Harris, 1967). For instance, a user with few connections on LinkedIn, may be perceived as less socially competent or less team oriented, while the reason may simply be that the individual is new to the platform or an infrequent user. In conclusion, the amount of information available on a candidate's profile is likely to affect the evaluation of said candidate.

Irrelevant information. A risk indicated by Brown and Vaughn (2011), is that the screening of job candidates on LinkedIn may lead to the gathering of information that is not strictly relevant for the job in question, but that will still affect the evaluation of the given individuals. Indeed, when assessing the user profile of a candidate, an abundance of information that is irrelevant for a given position may be present, such as a profile picture revealing physical appearance. Moreover, the presence of such information may, consciously or unconsciously, affect the perception or evaluation of candidates.

Physical appearance is a factor that matters in recruitment processes, and this potential pitfall can be captured by the Halo Effect. Thorndike (1920) coined this term, referring to "the tendency for judgment of a novel attribute (A) of a person to be influenced by the value of an already known, but objectively irrelevant, attribute (B)" (as cited in Greenwald & Banaji, 1995, p.9). Within the Halo Effect research, a popular choice for the objectively irrelevant attribute has been physical appearance. For instance, Dion, Berscheid and Walster (1972) found that both physically attractive men and women were judged more preferably on a range of other dimensions, such as kindness, strength, and sociability. This could mean that

the extent to which a profile picture on LinkedIn is judged as attractive could influence the judgment of other unrelated characteristics of the profile holder, introducing a bias in the evaluation of the candidate.

Idealized information. Another source of bias can be the degree of idealization of information users provide on their profiles. LinkedIn users can customize their digital self-presentation which is likely to have an impact on their job and career prospects (Zide et al., 2014). As career advancement and professional relations seem to be a primary motive behind LinkedIn usage, personal branding is becoming increasingly important, and many users have seemingly been perfecting their online self-presentation (van Dijck, 2013). Accordingly, a prevalent assumption is that SNS profiles reflect idealized versions of the selves (e.g. Manago, Graham, Greenfield, & Salimkhan, 2008). This means that profile owners share idealized versions of their traits or characteristics that are not entirely in line with their actual self. Indeed, as argued by van Dijck (2013, p.208), LinkedIn profiles can be customized and altered to reflect an idealized version of one's professional identity, through highlighting skills and experience of which the profile owner is proud. Similarly, Rosenberg and Egbert (2011) suggested that active SNS users may alter and edit their self-presentation based on the goal of their SNS membership, such as career advancement.

Others maintain that SNSs can represent an extension of one's social context in which actual personality and characteristics are expressed, which would make interpersonal impressions based on SNS profiles more accurate (Back et al., 2010). Back and colleagues (2010) tested the two contrasting views in their study, basing their research on Facebook profiles. Observers (undergraduate research assistants) rated participants on several personality dimensions based on their Facebook profiles. The participants were tested to assess both their actual personality and their ideal personality, where the latter personality questionnaire was rephrased to have participants describe how they ideally would like to be. Back and colleagues' (2010) results were in accordance with the extended real-life hypothesis, where "ideal-self ratings did not predict observer impressions above and beyond actual personality" (p.373). This means that users conveyed their true personality on Facebook, and that observer impressions were in line with the actual personality of participants rather than their ideal personality. Results showed that observers approached face-to-face accuracy in assessing, for instance, extraversion. The findings suggest that Facebook profile owners do not convey an idealized

version of the self (Back et al., 2010). Recently, a follow-up study using LinkedIn by van de Ven, Bogaert, Serlie, Brandt & Denissen (2017) found that both extraversion and self-presentation could be accurately inferred, where self presentation "reflects the eagerness and self-confidence to present oneself" (Van der Linden, Bakker & Serlie, 2011 as cited in van de Ven et al., 2017, p.421). Moreover, a master thesis by Verschuren and Ranganath (2012) produced similar results, where the most accurate judgements were made in regards to the trait of extraversion. These findings suggest that certain traits may be inferred through the assessment of LinkedIn profiles. However, the research on LinkedIn is yet to provide an answer to whether profile owners convey a truthful or an idealized picture of themselves with regards to the remaining traits.

Big Five Personality Traits

Given the increasing use of LinkedIn and other SNSs in recruitment, an important question becomes whether a user profile can tell us something valuable about a candidate with relevance to a position of interest such as personality, and other variables that are not explicitly listed. The Big Five traits are commonly used in other research on personality inferences based on SNSs (Tskhay & Rule, 2014), and are important predictors of a number of different aspects of work performance (Barrick & Mount, 2005). Costa & McCrae (1992) describe the Big Five personality traits of conscientiousness, emotional stability, extraversion, openness to experience, and agreeableness as follows. People scoring high on conscientiousness tend to be goal-directed and well-organized. Emotionally stable individuals, as opposed to more neurotic individuals, are calm, even tempered, and do not get stressed out easily. Those scoring high on extraversion tend to be optimistic, emotionally expressive and sociable compared to those scoring high on introversion. Openness to experience means being open to new experiences, being unconventional and creative. Lastly, those scoring high on agreeableness are warm and sympathetic and wish to avoid confrontation, whereas people with low scores on agreeableness can be cynical and suspicious.

The value of being able to infer personality traits based on a LinkedIn profile is clear. Indeed, while researchers previously criticized personality as an ineffective performance predictor (e.g., Guion & Gottier, 1965; Davis-Blake & Pfeffer, 1989), it is now acknowledged and verified that we all have our personality (e.g., Goldberg, 1993) and that our personality is important as it predicts and explains

work behavior (Barrick & Mount, 2005). Through extensive meta-analyses, our understanding of the relation between personality and job performance has developed greatly (e.g., Barrick, Mount, & Judge, 2001a; Hogan & Holland, 2003; Judge, Bono, Ilies, & Gerhardt, 2002; Judge & Ilies, 2002). The traits of conscientiousness and emotional stability may be viewed as measures of trait-oriented work motivation, appearing to affect job performance in all occupations. Extraversion, agreeableness, and openness to experience, are also valid performance predictors, but only in relation to certain niches- i.e. for certain occupations or for certain criteria (Barrick et al., 2001a). For instance, extraversion is a trait related to performance in occupations demanding a large portion of interpersonal interaction, especially when the interaction is aimed at influencing others and attaining power and status (Mount, Barrick, & Stewart, 1998). Indeed, being sociable, assertive, and energetic (Costa & McCrae, 1992), can facilitate performance in jobs like these (e.g. sales). Agreeableness is also a trait of importance with regards to performance in jobs demanding interpersonal interaction. Here, however, it is especially important when the interaction demanded involves helping, nurturing, or cooperating with others (e.g. care work). Thus, in team work, agreeableness may be an important predictor of performance (e.g., Mount et al., 1998). Those lacking in agreeableness are likely less effective in teams and may engage in counterproductive behaviors, given their argumentativeness, inflexibility and uncooperativeness. Lastly, research has found that openness to experience is related to creativity and adaptability to change (e.g. George & Zhou, 2001; LePine, Colquitt, & Erez, 2000). Those who are open, intellectual, curious, and independent (Costa & McCrae, 1992) are more likely to be able to deal with change and contribute to innovation in their jobs (e.g. start-ups).

Research such as this demonstrates the value of screening candidates based on personality, as all Big Five traits to differing degrees, predict job performance (e.g., Barrick, Mount, & Judge, 2001b; Barrick & Mount, 2005). Thus, it is likely that recruiters will attempt to infer personality in order to evaluate fit with the job and the organization (Kristof-Brown, 2000; Bohnert & Ross, 2010).

Previous studies of personality inferences on SNSs have rather consistently found that extraversion is the trait that can be most accurately inferred (e.g., Back et al., 2010; van de Ven et al., 2017; Verschuren & Ranganath, 2012). We also believe that perceptions of extraversion will be more accurate than perceptions of

the other personality traits. Indeed, results from a meta-analysis showed that there are differences in how easily certain personality traits can be assessed by strangers (Connolly, Kavanagh, & Viswesvaran, 2007). For instance, when comparing stranger-rated personality and self-rated personality, Connolly and colleagues (2007) found a correlation of p=.08 for emotional stability and a correlation of p = -.01 agreeableness. Stranger rated extraversion, on the other hand, had a correlation of p=.39 with self-rated extraversion. The reasons for this might be that some facets of personality are more easily observable than others. For example, facets of extraversion include positive emotion, high activity level and talkativeness (Costa & McCrae, 1992), which is arguably easier to observe than to other traits such as agreeableness, which is characterized by less overt behaviors like a forgiving nature (Costa & McCrae, 1992). We see few reasons that people would be more accurate in judging these traits based on a LinkedIn profile. Thus we arrive at the following hypothesis:

H1: Extraversion is inferred with a higher level of accuracy than the remaining personality traits

To our knowledge, no previous studies on personality inferences on SNSs have included HR staff or people with professional recruitment experience. This is something van de Ven and colleagues (2017) called for in future research in the field, to see whether this group of respondents would be more accurate in their inferences than laypeople. HR- and recruitment professionals have more direct experience with assessments of personality and other characteristics in candidates, and are more likely to be familiar with potential pitfalls and biases in such assessments. One the one side, this could allow them to base their evaluations on more relevant indicators and criteria when assessing LinkedIn profiles, and therefore let them arrive at more accurate personality inferences of the profile owners. On the other side, HR- and recruitment professionals may be more guarded and careful to assume knowledge of someone's personality based on their LinkedIn profiles, due to the lack of established cues to base this assessment upon. This could result in a reluctance to make inferences in the first place. Additionally, we believe that the small number of personality cues on LinkedIn profiles are likely to affect both groups of respondents similarly, which could make the differences in accuracy small. Moreover, the absence of a standardized procedure for the process of

evaluating candidates' profiles could mean that professionals and the laypeople do not differ significantly in their approach to make inferences about profile owners personality, which in turn would result in similar levels of accuracy in inferences made. We therefore want to test the hypothesis:

H2: The level of accuracy of personality inferences is different between respondents with professional recruitment experience and those without

This study further aims to take into account the possible effects of response distortion in self-reports. Indeed, critics of self-report personality testing have demonstrated that there seems to be little cross-situational consistency in individual's responses to personality test items (e.g., Mischel, 1968; Shrauger & Schoeneman, 1979). One reason for this may be that respondents try to present themselves in a socially desirable manner, suited to the given situation (Leving & Montag, 1987). Social desirability bias refers to the tendency individuals have to present themselves in a positive light (Johnson & Fendrich, 2002). Such responding can negatively affect the validity of the responses obtained.

In order to determine accuracy of inferences, this study will include both self-ratings and peer-ratings of the personality of LinkedIn profile owners. Indeed, van de Ven and colleagues (2017) requested that future research should include peer-rated personality of the profile owners, which has been shown to be more accurate compared to self-ratings in certain situations (Smith, 1967; Mount, Barrick & Strauss, 1994). Thus, we want to find out whether accuracy of inferences will differ when compared with peer-ratings as opposed to self-ratings of personality. Moreover, by using more than one method for gathering data about the LinkedIn owners, it is more likely that we can avoid common method bias (Donaldson & Grant-Vallone, 2002).

Method

In order to collect the data needed to answer the hypotheses, three questionnaires were constructed to assess self-rated personality of the profile owners, their peer-rated personality, and their personality as perceived by raters based on impressions of their LinkedIn profiles.

Self-rated Personality Questionnaire

Four frequent LinkedIn users were recruited through convenience sampling, with the intention of using their profiles in the main survey. We defined frequent users as those who visit the site at least once every two weeks. The reasoning behind choosing frequent LinkedIn users for our sample was that they are likely to have a more complete profile than those who are infrequent users, and that it would be more difficult to assess incomplete profiles. The profile owners were all students from the MSc in Leadership and Organizational psychology at BI Norwegian Business School, which would limit variance in certain variables such as educational background or age. However, we also sought a sufficient level of variability in the profiles, with regards to factors such as activity level, amount of text, type of profile picture (formal or informal) and number of connections, as we believed it would be too hard and demotivating for the raters to evaluate profiles that were too similar.

The profile owners were asked to complete an online survey using Qualtrics, based on the Norwegian version of the Big Five Inventory (BFI), originally developed by John, Donahue, and Kentle (1991), and later translated by Engvik and Føllesdal (2005). The BFI has 44 items, and is shorter than more commonly used personality measures such as NEO-PI-R (Engvik & Føllesdal, 2005). Shorter measures have several advantages as they take less time, and the respondents will be less affected by fatigue or boredom (Burisch, 1984). Furthermore, the BFI scales have shown high Cronbach's Alphas, ranging from .75 to .90 for the English version (John & Srivastava, 1999) and .75 to .84 for the Norwegian version, and high concurrent validity with other validated scales measuring the Big Five personality traits (Engvik & Føllestad, 2005). Examples of items from BFI are "has an assertive personality" and "is sometimes shy, inhibited". The items were rated on 5-point Likert scale from "strongly agree" to "strongly disagree".

After having administered the BFI-44 self-report, we performed a factor analysis to assess the loadings for each individual trait and to ensure a high reliability of the measures for the analysis. We structured the components to ensure that all included items had loadings greater than the 0.65 cut-off and an alpha greater than 0.7 per trait when performing the final analysis. We ended up with a strong reliability for the measures (*r:* extraversion = 0.91, openness to experience = 0.91, emotional stability = 0.92, conscientiousness = 0.91, agreeableness = 0.77) (see Appendix, Table 1).

Peer-rated Personality Questionnaire

As previously mentioned, self-report measures of personality have received much criticism. Hence, we chose to include a peer-rated personality measure as well, where we simply re-worded the questionnaire to begin with "This person is…" instead of "I am…". Each profile owner was asked to make two people with a close relation to them (e.g. family member, significant others, close friends) rate their personality with the 44-item BFI, using the online survey tool Qualtrics. Again, the items were rated on a 5-point Likert scale from "strongly agree" to "strongly disagree".

After administering the BFI-44 peer-report, we performed another factor analysis in the same manner as we did with the BFI-44 self-report measures. In this case, however, we needed to lower the cut-off value for the item loadings to 0.55 and the alpha cut-off to 0.6 in the case of the conscientiousness trait. The reason for the lower alpha obtained for the conscientiousness trait may be the somewhat broad spectrum of sub-traits that are tapped by the overall construct. Indeed, items range from "does a thorough job" to items tapping laziness and how easily distracted the subject is, reflecting scale breadth. When items with inadequate loadings were removed, construct breadth was prioritized in order to "capture" the trait of conscientiousness, resulting in a somewhat lower reliability. One could have retained items with considerable overlap to increase the alpha, but that would result in a measure that was unable capture the breadth of the trait. Indeed, for scales with fewer items, alphas may sometimes even be misleading in the evaluation of their usefulness (e.g., Kline, 2013; Wood & Hampson, 2005). Nevertheless, the reliability for the measures were overall strong (*r:* extraversion = 0.94, openness to experience = 0.88, emotional stability = 0.88, conscientiousness = 0.61, agreeableness = 0.90) (see Appendix, Table 2).

The LinkedIn Questionnaire

The sample of raters (N=284) was recruited through convenience sampling, using channels such as Facebook and LinkedIn. Participation was voluntary, and no incentives were offered to the participants. The data collection lasted about three weeks, from March 12th to April 3rd 2018. All respondents were asked to complete a questionnaire using the online survey tool Qualtrics, where they were to evaluate the personality of the four profile owners based on their LinkedIn profiles. In

comparison, van de Ven and colleagues (2017) included 178 and 97 profile owners in their studies, while they had 10 and 20 raters (psychology students), respectively. We decided to limit the number of profiles to four, and instead get a large and more diverse sample of raters, as it would more closely reflect the variations in evaluators in real life. Additionally, this would limit the effects of fatigue and other third variables that are more likely introduced in surveys that are highly time- and resource demanding. Moreover, we included a large number of raters with professional recruitment experience (N=83), to assess whether their level of accuracy in personality inferences would surpass that of laypeople, as requested by van de Ven and colleagues (2017). In order to make this comparison, we needed robust data and a sufficiently large number of raters, thereby sacrificing number of profiles for number of raters.

The names of the profile owners as well as other names that appeared on the profiles were edited out to ensure their anonymity. The profile pictures of the profile owners were still displayed, so that respondents could identify any profile owners they knew (see Appendix, Image 1). If a respondent knew a profile owner, they were not allowed to rate that profile, to ensure that personality ratings of the profiles were solely based on the information available on the given profile.

The respondents viewed the complete LinkedIn profiles, and were asked to look through it thoroughly before answering questions about their personality which appeared below the profile (see Appendix, Image 2). The LinkedIn profiles were rated according to the Big Five personality traits, with one item for each of the five personality traits. Each trait was rated on a 5-point likert scale, e.g. from "highly introverted" to "highly extroverted" (see Appendix, Image 3). The middle point was labeled "neither, nor" indicating a neutral stance. To ensure that the respondents were familiar with the different personality traits, a description of each trait was available at the bottom of each survey page (see Appendix, Image 4). Other variables included in the study were whether the respondents had professional recruitment experience, as well as gender and age.

Analysis and Results

Missing Values and Completion time

In the analysis of our data we used IBM SPSS Software. We recorded 284 responses, meaning that 284 respondents entered the survey. However, the

completion time varied greatly, partly due to missing values. There are a number of reasons for this. First, some respondents simply entered the survey without answering any questions, meaning that they exited more or less immediately. Second, some respondents simply answered the questions concerning demographic variables, but did not continue on with the ratings of the profiles. The respondents who did not continue on to the actual ratings of profiles are regarded as missing values and are therefore excluded from the estimation of completion time (64 respondents). Third, as the respondents were not allowed to rate profiles whose owners they knew, the number of profiles rated per respondent varies. Per profile, there were between 18 and 39 respondents who knew the profile owner, meaning that they were not allowed to proceed to the rating of the given profile. Lastly, there are a number of dropouts, whose reason behind only partially finishing the survey is likely caused by factors such as fatigue, difficulty with the questions, and/or interruptions. In total, we ended up with 220 respondents who rated at least one profile. Due to factors such as these, as well as the option to start the survey and finish later, the completion time varies greatly (*Median* = 5.73 minutes).

Descriptive Statistics

There were between 165 and 195 raters per profile (97-113 female, 68-82 male, and 1 other), out of which there were between 62 and 83 raters with professional recruitment experience (see Appendix, Table 3). 142 respondents rated all four profiles. More or less common for the raters across all profiles was the age dispersion, with an overrepresentation of respondents in the age groups 18-24 and 25-34, with a relatively even distribution of the remainder of the raters in the age groups between 35 and 64 (see Appendix, Table 4). There were no significant differences in the personality ratings between different gender and age groups.

Consensus and Accuracy

Previous research focusing on personality inferences based on SNSs such as Facebook, suggests that the extent to which such profiles can predict personality traits depend on two factors (e.g., Gosling, Gaddis, & Vazire, 2007; Vazire & Gosling, 2004). First, is the level of consensus, which is defined here as the degree to which similar inferences are made of profile owners' personality based on their LinkedIn profile. A high consensus level indicates that a profile supplies a coherent and interpretable message (Vazire & Gosling, 2004). Second, is the level of

accuracy, which we defined as the degree to which there is a match between raters' inferences about profile owners' personality and the actual personality of the profile owners, as measured by both peer- and self-report. A high level of accuracy would mean that raters correctly rate profile owners' personality.

Consensus: Coefficient of variation and ICC. In order to assess the variations in the data set, we calculated Coefficients of Variations (CV) for each rated trait for each profile. This would allow us to see to what extent raters differed in their personality evaluations. Based on the CVs, our data distribution had low variance, as all items showed a CV well below 1 (see Appendix, Table 5, 6, 7, and 8) (Ready Ratios, n.d.)

We also performed a test of Intraclass Correlation (Bartko, 1966), a more statistically robust measure (tested with two-way random model with absolute agreement for average measures), to assess consensus among the raters in the form of inter-rater reliability. It may be argued that this test should not be used on ordinal data, partly because we cannot ascertain whether the distance between two given numbers is the same as between two other numbers (e.g. whether the distance between 1 and 2 is the same at between 3 and 4). However, many argue for its robustness and validity regardless (e.g., Norman, 2010), for instance by underscoring that while we cannot make inferences about the latent characteristics associated with the Likert numbers, this does not invalidate any conclusions drawn about the numbers themselves. Based on reasoning such as the former, and the robustness of the measure, we found support for the use of the ICC test in this study. Nevertheless, we interpreted the output cautiously.

In order to perform the ICC, we first transformed the data using Excel, so that the raters were the columns and the rows were the items. The results from the ICC analysis supported consensus in the ratings of only two out of the five personality traits, namely extraversion and openness to experience (see Appendix, Table 9). Conscientiousness had a moderate ICC, but was not significant. Moreover, the ICCs for agreeableness and emotional stability turned out negative. Normally, negative ICCs are due to factors such as coding-issues (Nichols, 1999). However, as there were no reversed items in the LinkedIn survey, we interpret this as there truly not being any positive covariance among the raters.

An ANOVA was performed to determine if there were any significant difference between the personality ratings of those who had professional recruitment experience and those who did not. No significant differences were

found between the two groups, meaning that they rated the profiles similarly, thereby rejecting Hypothesis 2 (see Appendix, Table 10). As they rated the profiles similarly, the recruitment experience variable was not taken into account in the further accuracy analyses.

Accuracy. . In the analysis of accuracy, we chose to focus on extraversion and openness to experience, for each individual profile. Due to the lacking consensus between raters with regards to assessment of agreeableness, emotional stability and conscientiousness, these traits were not included in the accuracy analysis.

Based on the self-assessment and peer-report personality tests we calculated mean trait scores for each profile owner to base our analysis upon. However, as we only had four profiles, using conventional correlational methods for assessing accuracy would yield misleading results as there would be too few data points being compared (e.g. correlating the extraversion scores from the LinkedIn survey with only one extraversion average per profile from the peer-report survey).

Therefore, in order to assess accuracy of personality inferences, we sought to find the percentage of raters that could be assumed to have estimated the "correct" trait scores for each profile owner, beyond what is expected to be guessed by chance. Thus, the ratings were compared with the "correct" scores from both the self-assessment and the peer-report personality questionnaire. Since each trait in the LinkedIn survey was rated at a 5-point Likert scale, one would expect that each point on the scale would have a 20% chance of being chosen, if the ratings were done at random. If a point on the scale was chosen by more than 20% of the raters, we assumed that this category was not chosen by random, and that the answer reflected what raters believed to be the correct trait score. Therefore, if 42% of raters scored a profile owner correctly as a 4 on extraversion (somewhat extroverted), 20% of these ratings were subtracted from the accuracy score and attributed to chance, for a sufficiently conservative measure. Thus, the accuracy score would be 22%. If the correct score was 4.5, we accepted ratings of both 4 and 5 as correct answers, but attributed 40% to chance. Hence, if 56% rated the profile owner as either a 4 or a 5, the accuracy score would be 16%. The determining factor for whether we accepted one or two scores as right answers was the distance from the closest integer. If the distance was less than 0.3 (e.g., 4.22) we rounded the number up or down to the closest integer (in this case: 4). If the distance was higher than 0.3 (e.g., 4.42), we accepted the two closest integers (in this case: 4 and 5).

Then, we subtracted 20% or 40%, respectively, from the percentage of correct answers to arrive at the accuracy score.

Peer-report vs. Raters. First, we used the peer-rated personality as a basis for comparison (i.e. "correct personality"). For extraversion, the percentages of accurate ratings ranged from 6,1% to 39,2% (Profile 1: 26.7%, Profile 2: 24.9%, Profile 3: 39.2%, Profile 4: 6,1%). For openness to experience, the percentages of accurate ratings ranged from -17.27% to 27.9% (Profile 1: 22.6%, Profile 2: 27.9%, Profile 3: -0.3%, Profile 4: -17,27%) (see Appendix, Table 11). By mere observation, the results indicate that accuracy is higher for the trait of extraversion when compared to the trait of openness to experience. Thus, the comparison between the peer-report and raters from the LinkedIn survey gives support to Hypothesis 1.

Self-report vs. Raters. When using the self-report scores on personality for the profile owners, the results were somewhat different, especially with regards to openness to experience. For extraversion, the percentages of accurate ratings that occured beyond what could be expected by chance ranged from 6,1% to 26,7% (Profile 1: 26.7%, Profile 2: 24.9%, Profile 3: 32.6%, Profile 4: 6.1%), only changing the score for profile 3. For openness to experience, the percentages of accurate ratings ranged from -19% to 37,3% (Profile 1: -19%, Profile 2: 33.33%, Profile 3: 23.6%, Profile 4: 37.3%), changing all the scores (see Appendix, Table 12). Thus, the self-report comparison also supports Hypothesis 1, that extraversion is inferred with a higher level of accuracy than the other personality traits.

The accuracy scores for the remaining traits can be found in Tables 13 and 14 in the Appendix.

Discussion

The aim of this study was to establish the extent to which personality traits could be inferred based on the evaluation of LinkedIn profiles, as there has been little empirical focus on whether LinkedIn can be used to predict personality. As the self- and peer- report of personality for the profile owners showed diverging results, we chose to rely on the peer-report measure of personality for the profile owners in our assessment of rating accuracy. This is due to the potential weaknesses associated with self-report measures that have previously been discussed, such as weak cross-situational consistency (e.g., Mischel, 1968; Shrauger & Schoenman,

1979) and issues related to social desirability bias (Leving & Montag, 1987). However, it should be mentioned that the findings and support of our hypotheses did not differ depending on what measure of personality we relied upon.

The two studies that to our knowledge have researched personality inferences on LinkedIn have found that extraversion can be more accurately inferred than the remaining Big Five traits (e.g., van de Ven et al., 2017; Verschuren & Ranganath, 2012). These findings did extend to our study, where extraversion was rated more accurately than the other traits, thereby supporting Hypothesis 1. Indeed, the accuracy of extraversion ratings were considerably higher than those of openness, as well as the remaining traits (see Appendix, Table 11, 12, 13, 14). Moreover, in our study, a large proportion of the rater-sample were individuals with professional recruitment experience, as requested by van de Ven and colleagues (2017). This was done to see whether recruitment experience would have an effect on accuracy of inferences. We found that there were no significant differences in the ratings made by those with and without professional recruitment experience, thereby rejecting Hypothesis 2.

Somewhat surprisingly, we did not find a significant consensus for the conscientiousness trait. Instead, we found a higher consensus for openness to experience. The openness trait consists of facets that we assumed difficult to observe based on a LinkedIn profile, such as being imaginative, curious and having broad interests (Costa & McCrae, 1992). Moreover, Connolly and colleagues (2007) found that stranger-ratings of conscientiousness correlated more strongly with self-ratings of the same trait (p=.34), than was the case for openness (p=.22). Thus, we expected more adequate and observable indicators of conscientiousness than for openness on LinkedIn profiles (e.g. overall orderliness of a person's profile and spelling errors) which in turn would result in a greater consistency among raters. If nothing else, we expected that the trait of openness to experience would yield more divergent ratings than the former trait. However, this was not the case in our study.

The reason for the consistency among raters with regards to openness may have been that several of the profiles actually contained what may be considered as adequate indicators of openness. Several of the profile owners listed experiences and activities that many would consider as reflecting openness, such as exchange programs to far-away countries, different locations for Bachelor's- and Master's degrees, and overall varied experience with regards to both education and work.

Such indicators may have resulted in greater consistency in the ratings of the openness trait. Moreover, certain previous studies assessing personality inferences using SNSs such as Facebook have also obtained similar results, where level of inference accuracy for the trait of openness exceeds that of conscientiousness (e.g., Back et al., 2010), which is in line with our findings.

With regards to inference accuracy, the LinkedIn profiles better predicted the trait of extraversion than openness (see Appendix, Table 11 and 12). The finding that extraversion was the most accurately inferred is in line with our hypothesis and previous research, suggesting that there are sufficient and strong indicators of said trait on LinkedIn. Moreover, in the study performed by Connolly and colleagues (2007), the strongest correlation between stranger- and self-ratings of personality were found in relation to the trait of extraversion (p= .39), indicating that extraversion is the trait that can best be inferred by strangers, compared with the other traits. To compare, in the same study, stranger ratings of agreeableness and emotional stability correlated only weakly and even negatively with self-ratings of the same traits (p=-.01 and p=.08, respectively). Indeed, as previously discussed, the trait of extraversion is likely easier to observe than the remaining traits, with facets such as high activity level, being person-oriented and assertiveness (Costa & McCrae, 1992). Given that a LinkedIn profile can provide a large amount of information, such facets are likely easier to observe than facets of other traits. For instance, level of activity can likely be inferred based on the amount of activity on a profile. Person-orientation may be inferred based on number of connections and listed interests. Assertiveness may be inferred based on for instance the type of roles the profile owner has occupied (e.g. leader roles) and display on her/his profile. To compare, the trait of neuroticism, for instance, consists of facets such as nervousness, self-consciousness and vulnerability (Costa & McCrae, 1992), which is considerably harder to observe without directly interacting with a person (e.g., Funder, 1999; Kenny, 1994). Thus, the inconsistency among raters in relation to neuroticism is not surprising.

Another reason for the apparent inconsistency among raters and the low inference accuracy may have been caused by the absence of standardized procedures to evaluate personality based on LinkedIn profiles. This may in turn be the reason why we did not find any significant differences between those with and without recruitment experience. While the former are likely to have considerably

more experience in evaluating LinkedIn profiles, this proved not to have an effect on the degree of inference accuracy.

Amount of Information

The results may also simply indicate that there was an insufficient amount of information provided on the profiles making accurate personality ratings difficult, which is supported by the low consensus between raters. Indeed, overall, raters seemed not to agree strongly in their personality ratings. LinkedIn is more static in nature than SNSs such as Facebook. On Facebook users tend to post more frequent updates that are less constricted in terms of content and subject. Moreover, on Facebook there are likely to be many more cues of previous behavior and behavioral tendencies than on LinkedIn, where even users "friends" can post information and pictures about each other's activities (Stoughton, Thompson, & Meade, 2013). On LinkedIn, however, there are likely to be much fewer traces of past behavior given its more static and restricted nature, thereby reducing the number of personality cues.

Indeed, on LinkedIn, the information that can be provided is limited by the categories available on the platform. Tskhay and Rule (2014) argued in their meta-analysis that accuracy of personality inferences based on SNSs increases along with amount of text. Since more information, including sufficient relevant personality cues about the target, provides a more solid basis for accurate personality assessments (Funder, 1995), SNSs such as Facebook may be a better predictor of actual personality than LinkedIn. Indeed, the limited amount and character of information generally provided on LinkedIn when compared to SNSs like Facebook, suggest that the latter may serve as a better basis when assessing personality. This idea was supported by feedback provided by one of the raters, who stated that:

> *"The profiles were way to similar for me to spot any clear differences, which therefore made my ratings difficult. Generally, I think LinkedIn profiles are more or less all the same, in contrast to Facebook for instance."*

The amount of available information on the four profiles included in the study did vary. We therefore suspected that rater accuracy would vary accordingly (e.g., CareerBuilder Survey, 2017; Johnson, 1987; Johnson & Levine, 1985).

Indeed, as previously mentioned, missing information can be interpreted as suspicious, making raters wonder why certain pieces of information is unavailable, which in turn can result in a less positive evaluation. While there were no evident gaps of information in any of the profiles, there were certain noticeable differences in the amount of information provided, such as the presence or absence of a summary, the inclusion or exclusion of languages mastered, and the number of skills and endorsements. However, we did not find any pattern in the ratings which suggests that amount of information did not play a role in the evaluation of the LinkedIn profiles. The reason behind this may be that none of the profiles included in our study contained a sufficient amount of information to provide a solid basis for personality inferences. However, the absence of a link between the amount of information and rater accuracy may also simply be due to the aforementioned challenges such as stereotype judgments, presence of irrelevant information, or lack of solid indicators of personality traits due to the static and restricted character of LinkedIn profiles, as opposed to amount of information in itself (e.g., Thorndike, 1920; Brown & Vaughn, 2011; Zide et al., 2014). Alternatively, it may be that no or very few LinkedIn profiles contain the type or the amount of information demanded to infer personality of the profile owner with an adequate accuracy level.

Irrelevant Information

The low rater consistency and sub-par accuracy may also be explained by the type of indicators that raters chose to rely on, in the absence of what raters may have considered "adequate" indicators. Indeed, following the survey, several of the raters provided feedback expressing their difficulties inferring personality based on LinkedIn profiles, and that they were sorry that they were forced to rely on "stereotypes and prejudice" to make their ratings. For instance, one rater told us that:

> *"It was such a difficult task to say something about the profile owners' personality based on their profiles. I didn't know what to base my answers upon, so I guessed or relied on stereotypes and prejudice, given the absence of adequate personality cues".*

Such feedback alludes to the presence of a Halo Effect, where the raters consciously or unconsciously may have based their personality assessment on

characteristics or attributes that are unrelated and irrelevant, such as appearance (Thorndike, 1920). Thus, the presence of irrelevant information may have colored the ratings. One can imagine that some raters who first rate a profile owner as "socially desirable" on one personality dimension, rate the same profile owner as equally "socially desirable" on other unrelated dimensions, assuming a positive relation between the traits. Hence, if a rater perceives a profile owner as extroverted and conscientious based on indicators such as work experience and the profile picture, the rater may provide equally high scores on agreeableness, openness to experience, and emotional stability. Likewise, if raters perceive a profile owner as attractive, they may rate the individual in a socially desirable manner across all traits, in the absence of adequate indicators of personality available on the profile. However, van de Ven and colleagues (2017) found that rater accuracy was not affected by the presence or absence of a profile picture (reflecting appearance and gender). Nevertheless, other factors than that of the profile owners' appearance may have been a factor that affected the ratings of different traits, such as the personal preferences of the raters.

Idealized Information

A challenge for rater accuracy could also have been the presence of idealized information. While studies using primarily Facebook have suggested that users do indeed convey a truthful image of themselves (Back et al., 2010), there are to our knowledge no published studies assessing whether these findings extend to LinkedIn users. While the current study as well as researchers such as van de Ven and colleagues (2017) found high levels of accuracy with regards to inferences of for example extraversion, this need not mean that LinkedIn users convey a truthful image of the self. It may be that LinkedIn is a platform on which users are inclined to portray an idealized version of themselves to improve their career prospects. Indeed, there is an important difference between Facebook and LinkedIn in this regard. Whereas Facebook users are likely to post more frequently, more personal information, include pictures and to make choices of what to share more spontaneously, LinkedIn users are likely to be more careful with what they choose to share and how they present it. LinkedIn is a platform for career advancement, networking, and professional connections, with an incentive to portray oneself in a manner that is as positive and professional as can be. However, in the current study, raters provided lower scores on all traits that can be perceived as socially desirable

(extraversion, conscientiousness, agreeableness, openness, emotional stability), when compared to both self- and peer rated personality, suggesting that the information on the profiles included in this study did not provide idealized information. Nevertheless, more research is needed here.

Implications

We expect that the use of LinkedIn will continue to increase in the process of evaluating job candidates. Indeed, many recruiters do use LinkedIn to screen candidates for sought after personality traits, which subsequently affects the evaluation of candidates' suitability for a given job (e.g., Bohnert & Ross, 2010; Roulin & Bangerter, 2013). Such findings are corroborated by the results of the CareerBuilder Survey (2017), reflecting the widespread use of LinkedIn in recruitment and selection, and the consequences of this use for candidates. The finding that extraversion was the most accurately inferred is an important finding. As previously mentioned, this trait is closely related to performance in occupations demanding interpersonal interaction, where being sociable, assertive and energetic is of great value (Barrick et al., 2001a). Additionally, extraversion is related to the performance of managers and sales executives (Barrick & Mount, 1991), well-being (Ozer & Bennet-Martinez, 2006), as well as affective organizational commitment (i.e. the emotional connection to the employing company) (Erdheim, Wang, & Zickar, 2006)

However, the inference of candidate characteristics based on their LinkedIn profile seems not to be effective for many other traits. Indeed, we found that while extraversion and openness could be inferred with some level of accuracy, the remaining traits could not. This is an important finding, and suggests that the use of LinkedIn in this manner is premature.

The troublesome aspect with this trend is that there is an evident lack of research in the field, and an absence of validated methods for assessing candidates based on their LinkedIn profiles. This was evident in the current study, as the accuracy of inferences by those with professional recruitment experience did not exceed that of laypeople. This suggests that inferences about profile owners' personality may differ depending on the person evaluating the profile, instead of depending on actual variations in the subjects' personality, thereby introducing a powerful bias.

Moreover, given the divergent character of LinkedIn profiles, the selection of indicators of sought after characteristics will be a challenging pursuit. The variations between profiles with regards to factors such as amount of information provided, level of activity, and formality of profile picture, may very well have substantial effects on candidate's career prospects without necessarily being solid indicators of their characteristics. Such a variation of type and amount of information also reflects a major challenge for the development of a standardized information collection procedure. It may seem as if the use of LinkedIn in recruitment and selection has moved too quickly when compared with the research on said field, makings its use questionable. Indeed, a highly problematic issue is the lack of validity evidence in support of the appropriateness of using LinkedIn for this purpose. At the moment, without well-documented validity for the information gathering using LinkedIn, the conclusions drawn and the decisions made based on profile searches may be both arbitrary and discriminatory.

Thus, in order to establish validity and enable standardization of the information gathering process on LinkedIn in recruitment, certain steps ought to be taken by organizations, including the following. First, one must find what characteristics a candidate should possess to succeed in the specific role one is recruiting for, through a job analysis (Siddique, 2004). Second, one must examine what pieces of information represent the chosen characteristic. That is, valid indicators of the characteristics must be discovered in order to say something meaningful about the candidate with regards to the chosen characteristics. For instance, if it is decided that the trait of extraversion is of interest, one may find that certain types of work experience, in combination with number of connections and level of activity represent indicators of said trait. Further research is needed here to establish such indicators. Third, all relevant candidates should be evaluated equally, meaning that similar pieces of information should be extracted from all profiles included, to enable a fair comparison. Lastly, inferences of characteristics based on LinkedIn profiles should be combined with the use of validated personality- and/or ability tests, until more research is performed.

Signs point to a future with an increased use of artificial intelligence and advanced algorithms in the assessment of candidates' virtual profiles. This can be of great help and further enable the sought after standardized and valid information collection process. A current example of such a tool is "CrystalKnows", an application that gathers available information about a given person online, before

summarizing a report of their assumed personality. As there is currently little knowledge about what cues on SNS profiles that reflect valid indicators of the profile owners' true personality, abilities, and other characteristics, such applications are likely ineffective. Moreover, there are seemingly large variations in amount of information people post online and on LinkedIn, making comparisons of people based on their online presence difficult. However, as the technology continues to evolve and the research of personality inferences based on SNSs progresses, there is likely a bright future for the assessment of candidates based on their online presence and activity. Nevertheless, such methods need to be subject of empirical scrutiny, given the effect such evaluations may have for candidates included in the process. It will be important to be cautious in the use of AI-applications in the future, and to combine its use with other validated methods of inferring candidate abilities and characteristics.

Limitations and Future Research

Limitations

In our study we only included four LinkedIn profiles to be assessed, which had implications for the type of statistical analyses that we could employ to analyze our data. If we had used similar statistical methods as the other studies to have researched personality inferences on LinkedIn, better comparisons could have been made. However, we chose to prioritize a high number of respondents both with and without recruitment experience, which demanded a lower number of profiles to be rated. Moreover, our findings were in line with those of previous studies, suggesting that our methodological approach was equally sound.

Another limitation was the 5-point Likert scale. The narrow scale resulted in many ratings close to the center (especially 3s and 4s), which might have been avoided using a broader scale (e.g. 7- or 10-point scale), where the ratings could be more nuanced and spread out. A broader scale could also have allowed for a more detailed and precise measure of personality. However, regardless of scale breadth, there are reasons to believe that the scores would approach the middle either way. First, it is likely common knowledge that most people will approach the centre of a normal distribution with regards to personality, thereby making the scores around the middle a safe choice. Extreme scores are rarer. Moreover, given the small numbers of clear cues of personality traits, raters were likely careful to provide

extreme scores as their basis for doing so was weak. Thus, it may have been easier to rate someone as "somewhat extroverted" than "highly extroverted", for instance. Additionally, we chose to use the 5-point scale as this is a format that most people are familiar and comfortable with. Moreover, the self- and peer personality questionnaires (BFI-44) were answered using a 5-point scale, thereby facilitating comparisons between the different personality assessments.

Lastly, we could have chosen LinkedIn profiles that were more diverse than those included in the study. However, the degree of variation of LinkedIn profiles is limited due to the restricted nature of the platform and the categories in which information can be displayed. Indeed, the variable that is likely to vary the most is amount of information. This variable was attended to. While we sought to include profiles that were complete, in that there were no evident gaps, there was indeed variation in the amount of information on the profiles in the study.

Future Research

Future studies should assess whether ideal self-ratings of personality can predict raters assessments above and beyond "true" personality (peer and self-rated), to test for the presence of idealized self-presentation on LinkedIn profiles. Indeed, as previously mentioned, there is likely to be a greater incentive to present idealized information on LinkedIn than on Facebook, making it interesting to see whether the findings of Back and colleagues (2010) extend to LinkedIn. It would also be interesting to see whether attributes and characteristics that are of value for recruiters, other than personality, can be accurately inferred based on LinkedIn profiles, such as communication skills and cooperative abilities. Lastly, future research is needed to establish valid indicators of different personality traits, characteristics and abilities. For instance, one could use eye-trackers or think-aloud protocols to be able to see what areas and aspects of a LinkedIn profile that raters focus on when evaluating the profile owner with regards to different characteristics.

Conclusion

LinkedIn provides valuable information about candidates and is a good addition to the recruitment process. Nevertheless, its use in the process of screening and sourcing of candidates ought to be combined with knowledge of associated

pitfalls, biases, and limitations, with regards to its ability to predict personality and other abilities and characteristics.

Indeed, while LinkedIn is widely used in selection processes, there has been little empirical scrutiny on the topic (e.g., Roth et al., 2016; McFarland & Ployhart, 2015). Therefore, this study is an important step towards bridging the existing gap between the use of LinkedIn in recruitment and its research. Our results suggest that LinkedIn today does not reflect a solid basis upon which inferences of personality can be made. However, more research is needed. An important step will be to establish valid and standardized methods for the use of LinkedIn as a recruitment tool, used to assess relevant characteristics about profile owners. If this process is carried out with robust methodology, it can hopefully secure fair and accurate assessments of candidates that can provide valuable information about their future task performance and other valued criteria.

References

Back, M.D., Stopfer, J.M., Vazire, S., Gaddis, S., Schmukle, S.C., Egloff, B., & Gosling, S.D. (2010). Facebook profiles reflect actual personality, not self-idealization. *Psychological science*, *21*(3), 372-374. doi:10.1177/0956797609360756

Barrick, M.R. & Mount, M.L. (1991) The Big Five personality dimensions and job performance: a meta-analysis. *Personnel Psychology, 44*(1), 1-26, doi:10.1111/j.1744-6570.1991.tb00688.x

Barrick, M.R. & Mount, M.L. (2005). Yes, personality matters: moving on to more important matters. *Human Performance, 18*(4), 359-372. doi:10.1207/s15327043hup1804_3.

Barrick, M.R., Mount, M.K., & Judge, T.A. (2001a). The FFM personality dimensions and job performance: Meta-Analysis of meta-analyses [Special issue]. *International Journal of Selection and Assessment, 9*, 9–30.

Barrick, M.R., Mount, M.K., & Judge, T.A. (2001b). Personality and performance at the beginning of the new millennium: What do we know and where do we go next? *International Journal of Selection and Assessment*, *9*(1-2), 9-30. doi:10.1111/1468-2389.00160

Baruffaldi, S.H., Di Maio, G., & Landoni, P. (2017). Determinants of PhD holders' use of social networking sites: An analysis based on LinkedIn. *Research Policy*, *46*(4), 740-750. doi:10.1016/j.respol.2017.01.014

Bohnert, D. & Ross, W.H. (2010). The influence of social networking web sites on the evaluation of job candidates. *Cyberpsychology, Behavior, and Social Networking, 13*(3), 341-347, doi:10.1089/cyber.2009.0193.

Blank, G. & Lutz, C. (2017). Representativeness of social media in great britain: investigating Facebook, LinkedIn, Twitter, Pinterest, Google+, and Instagram. *American Behavioral Scientist, 6*(7), 741-756. doi:10.1177/0002764217717559.

Boyd, D.M. & Ellison, N.B. (2008). Social network sites: definition, history, and scholarship. *Journal of Computer-Mediated Communication, 13*(1), 210-230. doi:10.1111/j.1083-6101.2007.00393.x

Bradley, T. (2011). Five ways to use LinkedIn. *PC World, 29*(8), 30.

Brown, V. & Vaughn, E. (2011). The Writing on the (Facebook) Wall: The Use

of Social Networking Sites in Hiring Decisions. *Journal of Business and Psychology, 26*(2), 219-225. doi:10.1007/s10869-011-9221-x

Burisch, M. (1984). Approaches to personality inventory construction. *American Psychologist, 39,* 214-227. doi:10.1037/h0032734

Caers, R. & Castelyns, V. (2011). LinkedIn and Facebook in Belgium: the influences and biases of social network sites in recruitment and selection procedures. *Social Science Computer Review, 29*(4), 437-448. doi:10.1177/0894439310386567

CareerBuilder (2017). Number of Employers Using Social Media to Screen Candidates at All-Time High, Finds Latest CareerBuilder Study. Retrieved from https://www.prnewswire.com/news-releases/number-of-employers-using-social-media-to-screen-candidates-at-all-time-high-finds-latest-careerbuilder-study-300474228.html

Connolly, J.J., Kavanagh, E.J., & Viswesvaran, C. (2007). The convergent validity between self and other ratings of personality: a meta-analytic review. *International Journal of Selection and Assessment, 15*(1), 110-117.

Costa, P.T. Jr & McCrae, R.R. (1992). *Revised NEO Personality Inventory (NEO-PI-R) and NEO Five-Factor (NEO-FFI) Inventory Professional Manual*. Odessa, FL: Psychological Assessment Resources.

Davis-Blake, A. & Pfeffer, J. (1989). Just a mirage — The search for dispositional effects in organizational research. *Academy of Management Review, 14*, 385–400.

Dietel, J.E. (2017). They do! How the explicit motive-structure predicts user behavior in (business-) social network sites like Xing or LinkedIn. *Computing*, *99*(5), 537-550. doi:10.1007/s00607-017-0545-x

Dion, K., Berscheid, E., & Walster, E. (1972). What is beautiful is good. *Journal of Personality and Social psychology, 24,* 207-213. doi:10.1037/h0033731

Donaldson, S.I. & Grant-Vallone, E.J. (2002). Understanding self-report bias in organizational behavior research. *Journal of Business and Psychology, 17*(2), 245-260. doi:10.1023/A:1019637632584

Dunne, Á., Lawlor, M., & Rowley, J. (2010). Young people's use of online social networking sites –a uses and gratifications perspective. *Journal*

of Research in Interactive Marketing, 4(1), 46-58. doi:10.1108/17505931011033551

Ebenbach, D.H. & Moore, C.F. (2000). Incomplete information, inferences, and individual differences: The case of environmental cues. *Organizational Behavior and Human Decision Processes, 81*, 1-27. doi:10.1006/obhd.1999.2870

Ellison, N.B. & Boyd, D.M. (2013). Sociality through social network sites. In Dutton, W. H. (Ed.), *The Oxford Handbook of Internet Studies* (pp.151-172). Oxford: Oxford University Press.

Engvik, H. & Føllesdal, H. (2005). The big five inventory på norsk. *Tidsskrift for Norsk Psykologforening, 42*(2), 128-129.

Erdheim, J., Wang, M., & Zickar, M.J. (2006). Linking the Big Five personality constructs to organizational commitment. *Personality and Individual Differences, 41*(5), 959-970, doi:10.1016/j.paid.2006.04.005.

Florenthal, B. (2015). Applying uses and gratifications theory to students' LinkedIn usage. *Young Consumers*, *16*(1), 17-35. doi:10.1108/YC-12-2013-00416

Funder, D.C. (1995). On the accuracy of personality judgment: A realistic approach. *Psychological Review, 102*, 652-670. doi:10.1037/0033-295X.102.4.652

Funder, D.C. (1999). *Personality judgment: A realistic approach to person perception.* San Diego, CA: Academic Press

Goldberg, L.R. (1993). The structure of phenotypic personality traits. *American Psychologist*, *48*(1), 26-34. doi:10.1037/0003-066X.48.1.26

Gosling, S.D., Gaddis, S., & Vazire, S. (2007). Personality impressions based on facebook profiles. *ICWSM, 7*, 1-4.

Greenwald, A.G. & Banaji, M.R. (1995). Implicit social cognition: attitudes, self-esteem, and stereotypes. *Psychological review*, *102*(1), 4-27. doi:10.1037/0033-295X.102.1.4

Guion, R.M. & Gottier, R.F. (1965). Validity of personality measures in personnel selection. *Personnel Psychology, 18*, 135–164. doi:10.1111/j.1744-6570.1965.tb00273.x

Harvey, J.H., Town, J.P., & Yarkin, K.L. (1981). How fundamental is the "fundamental attribution error"? *Journal of Personality and Social*

Psychology, 40, 346-349. doi:10.1037/0022-3514.40.2.346

Hogan, J. & Holland, B. (2003). Using theory to evaluate personality and job performance relations: A socioanalytic perspective. *Journal of Applied Psychology, 88*, 100–112. doi:10.1037/0021-9010.88.1.100

Jaccard, J. & Wood, G. (1988). The effects of incomplete information on the formation of attitudes toward behavioral alternatives. *Journal of Personality and Social Psychology, 54*, 580-591. doi:10.1037/0022-3514.54.4.580

John, O., Donahue, E.M., & Kentle, R.L. (1991). *The Big Five Inventory - Versions 4a and 54.* Berkely, CA: University of California, Berkely, Institute of Personality and Social Research.

John, O.P. & Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. *Handbook of personality: Theory and research*, *2*(1999), 102-138.

Johnson R.D. (1987). Making judgments when information is missing: Inferences, biases, and framing effects. *Acta Psychologica, 66*, 69-82. doi:10.1016/0001-6918(87)90018-7

Johnson, R.D. & Levine, I.P. (1985). More than meets the eye: The effect of missing information on purchase evaluations. *Journal of Consumer Research, 12*, 169-177. doi:10.1086/208505

Johnson, T. & Fendrich, M. (2002). A validation of the Crowne-Marlowe Social Desirability Scale. Available from: http://www.srl.uic.edu/publist/Conference/crownemarlowe.pdf (accessed May 22, 2016)

Jones, E.E. & Harris, V.A. (1967). The attribution of attitudes. *Journal of Experimental Social Psychology, 3*(1), 1-24. doi:10.1016/0022-1031(67)90034-0

Judge, T.A., Bono, J.E., Ilies, R., & Gerhardt, M.W. (2002). Personality and leadership: A qualitative and quantitative review. *Journal of Applied Psychology, 87*, 765–780. doi:10.1037/0021-9010.87.4.765

Judge, T.A., & Ilies, R. (2002). Relationship of personality to performance motivation: A metaanalytic review. *Journal of Applied Psychology, 87*, 797–807. doi:10.1037//0021-9010.87.4.797

Karl, K. & Peluchette, J. (2013). Possibilities and pitfalls of using online social networking in human resources management. *Psychology for Business*

Success, 4, 119-138.

Kenny, D.A. (1994). *Interpersonal perception: A social relations analysis.* New York: Guilford.

Kline, P. (2013). *Handbook of Psychological Testing.* London, UK: Routledge.

Kluemper, D.H. (2013). Social network screening: pitfalls, possibilities, and parallels in employment selection, in Bondarouk, T. and Olivas-Lujan, M. (Eds). *Advanced Series in Management* (pp. 1-21). Bingley: Emerald Group Publishing Ltd.

Kristof-Brown, A.L. (2000). Perceived applicant fit: distinguishing between recruiters' perceptions of person-job and person-organization fit. *Personnel Psychology, 53*(3), 643-671. doi:10.1111/j.1744-6570.2000.tb00217.x.

LaPoe, V.L., Carter Olson, C., & Eckert, S. (2017). "Linkedin Is My Office; Facebook My Living Room, Twitter the Neighborhood Bar" Media Scholars' Liminal Use of Social Media for Peer and Public Communication. *Journal of Communication Inquiry*, *41*(3), 185-206.

LinkedIn (n.d.a). About LinkedIn. Statistics. Retrieved June 1, 2018, from https://news.linkedin.com/about-us#statistics

LinkedIn (n.d.b). Find and Engage with Qualified Candidates. Retrieved from https://business.linkedin.com/talent-solutions/recruiter

Manago, A.M., Graham, M.B., Greenfield, P.M., & Salimkhan, G. (2008). Self-presentation and gender on MySpace. *Journal of Applied Developmental Psychology, 29*, 446–458. doi:10.1016/j.appdev.2008.07.001

McFarland, L.A. & Ployhart, R.E. (2015). Social media: a contextual framework to guide research and practice. *Journal of Applied Psychology, 100*(6), 1653-1677. doi:10.1037/a0039244

Mischel, W. (1968). *Personality and Assessment.* New York: Wiley.

Mount, M. K., Barrick, M. R., & Stewart, G. L. (1998). Personality predictors of performance in jobs involving interaction with others [Special issue]. *Human Performance, 11*, 145–166.

Mount, M.K., Barrick, M.R. & Strauss, J.P. (1994). Validity of observer ratings of the Big Five personality factors. *Journal of Applied Psychology, 79*, 272-280. doi:10.1037/0021-9010.79.2.272

Myers, J., Czepiec, H., Roxas, J., & Whitson, D. (2011). Teaching students

self-advertising/ marketing skills in the age of social media: designing an experiential exercise. *Journal of Advertising Education, 15*(1), 23-29.

Nichols, D.P. (1999). My coefficient is a negative. *SPSS Keywords, 68*, 1-4.

Norman, G. (2010). Likert scales, levels of measurement and the "laws" of statistics. *Advanced Sciences Education, 15* (5), 625-632. doi:10.1007/s10459-010-9222-y

Ollington, N., Gibb, J., & Harcourt, M. (2013). Online social networks: an emergent recruiter tool for attracting and screening. *Personnel Review, 42*(3), 248-265. doi:10.1108/00483481311320390

Ozer, D.J. & Benet-Martinez, V. (2006). Personality and the prediction of consequential outcomes. *Annual Review of Psychology, 57*, 401-421, doi:10.1146/annurev.psych.57.102904.190127

Pisano, S., Lepore, L., & Lamboglia, R. (2017). Corporate disclosure of human capital via LinkedIn and ownership structure: An empirical analysis of European companies. *Journal of Intellectual Capital*, *18*(1), 102-127. doi:10.1108/JIC-01-2016-0016

Ready Ratios (n.d.). Coefficient of Variation. Retrieved from https://www.google.com/url?q=https://www.readyratios.com/reference/analysis/coefficient_of_variation.html&sa=D&ust=1525955159260000&usg=AFQjCNGOkcQkU2vV2FEnbiWzgIjprAPc8Q

Rosenberg, J. & Egbert, N. (2011). Online impression management: Personality traits and concerns for secondary goals as predictors of self-presentation tactics on Facebook. *Journal of Computer-Mediated Communication*, *17*(1), 1-18. doi:10.1111/j.1083-6101.2011.01560.x

Ross, L. (1977). The intuitive psychologist and his shortcomings: distortions in the attribution process. In L. Berkowitz (Ed.), *Advances in experimental social psychology*. New York: Academic Press.

Roth, P.L., Bobko, P., van Iddekinge, C.H., & Thatcher, J.B. (2016). Social media in employee-selection-related decisions: A research agenda for uncharted territory. *Journal of Management*, *42*(1), 269-298. doi:10.1177/0149206313503018

Roulin, N. & Bangerter, A. (2013). Social networking websites in personnel selection. *Journal of Personnel Psychology, 12*(3), 143-151. doi:10.1027/1866-5888/a000094

Shrauger, J.S. & Schoeneman, T.J. (1979). Symbolic interactionist view of self-concept: Through the looking glass darkly. *Psychological Bulletin*, *86*(3), 549-573. doi:10.1037/0033-2909.86.3.549

Siddique, C.M. (2004). Job analysis: A strategic human resource management practice. *The International Journal of Human Resource Management*, *15*(1), 219-244. doi:10.1080/0958519032000157438

Smith, G.M. (1967). Usefulness of peer ratings of personality in educational research. *Educational and Psychological Measurement, 27,* 967-987. doi:10.1177/001316446702700445

Stoughton, J.W., Thompson, L.F., & Meade, A.W. (2013). Big Five personality traits in job applicants' social media postings. *Cyberpsychology, Behavior, and Social Networking, 16*(11), 800-805. doi:10.1089/cyber.2012.0163.

Thorndike, E.L. (1920). A constant error in psychological ratings. *Journal of Applied Psychology, 4,* 25-29. doi: 10.1037/h0071663

Tskhay, K.O. & Rule, N.O. (2014). Perceptions of personality in text-based media and OSN: a meta-analysis. *Journal of Personality, 49*, 25-30, doi:10.1016/j.jrp.2013.12.004.

van de Ven, N., Bogaert, A., Serlie, A., Brandt, M.J., & Denissen, J.J. (2017). Personality perception based on LinkedIn profiles. *Journal of Managerial Psychology*, *32*(6), 418-429. doi:10.1108/JMP-07-2016-0220

van Dijck, J. (2013). 'You have one identity': performing the self on Facebook and LinkedIn. *Media, Culture & Society, 35*(2), 199-215. doi:10.1177/0163443712468605

Vazire S. & Gosling, S.D. (2004). E-perceptions: Personality impressions based on personal websites. *Journal of Personality and Social Psychology, 87*(1), 123-132. doi:10.1037/0022-3514.87.1.123

Verschuren, A. & Ranganath, K. (2012). Relying on linkedin profiles for personality impressions. *Master's thesis, Tilburg University, The Netherlands*.

Willett, R. (2009). As soon as you get on Bebo you just go mad': young consumers and the discursive construction of teenagers online. *Young Consumers, 10*(4), 283-296. doi:10.1108/17473610911007120

Yates, J.F., Jagacinski, C.M., & Faber, M.D. (1978). Evaluation of partially described multiattribute options. *Organizational Behavior and Human*

Performance, 21, 240-251. doi:10.1016/0030-5073(78)90052-1

Zide, J., Elman, B., & Shahani-Denning, C. (2014). LinkedIn and recruitment: how profiles differ across occupations. *Employee Relations, 36*(5), 583-604. doi:10.1108/ER-07-2013-0086

Appendix

Table 1

BFI-44 Self-Report Component Structure

Items	Extraversion	Openness	Emotional Stability	Conscientiousness	Agreeableness
is talkative	0.78				
is reserved	0.93				
is full of energy	-				
generates a lot of enthusiasm					
tends to be quiet	0.93				
has an assertive personality	-				
is sometimes shy, inhibited	0.94				
is outgoing, sociable	0.78				
is original, comes up with new ideas		0.99			
is curious about many different things		-			
is ingenious, a deep thinker		-			
has an active imagination		0.82			
is inventive		0.66			
values artistic, aesthetic experiences		-			
prefers work that is routine		0.88			
likes to reflect, play with ideas		-			
has few artistic interests		0.88			
is sophisticated in art, music, or literature		0.82			
is depressed, blue			0.99		
is relaxed, handles stress well			-		
can be tense			0.78		
worries a lot			0.99		
is emotionally stable, not easily upset			0.89		
can be moody			0.88		
remains calm in tense situations			-		
gets nervous easily			-		
does a thorough job				-	
can be somewhat careless				-	
is a reliable worker				0.95	
tends to be disorganized				-	
tends to be lazy				-	
perseveres until the task is finished				0.93	
does things efficiently				0.95	
makes plans and follow through with them				0.77	
is easily distracted				-	
tends to find fault with others					0.8
is helpful and unselfish with others					-
starts quarrels with others					-
has a forgiving nature					-
is generally trusting					0.88
can be cold and aloof					-
is considerate and kind to almost everyone					0.81
is sometimes rude to others					0.83
likes to cooperate with others					-
Cronbach's α	0.91	0.91	0.92	0.91	0.77

Note. Items shown in original English wording. "-" reflects items deleted due to weak loadings

Table 2

BFI-44 Peer-Report Component Structure

Items	Extraversion	Openness	Emotional Stability	Conscientiousness	Agreeableness
is talkative	0.87				
is reserved	0.96				
is full of energy	0.99				
generates a lot of enthusiasm	0.92				
tends to be quiet	0.71				
has an assertive personality	0.85				
is sometimes shy, inhibited	-				
is outgoing, sociable	0.78				
is original, comes up with new ideas		-			
is curious about many different things		-			
is ingenious, a deep thinker		0.86			
has an active imagination		-			
is inventive		-			
values artistic, aesthetic experiences		-			
prefers work that is routine		-			
likes to reflect, play with ideas		0.86			
has few artistic interests		0.87			
is sophisticated in art, music, or literature		0.88			
is depressed, blue			-		
is relaxed, handles stress well			-		
can be tense			0.94		
worries a lot			-		
is emotionally stable, not easily upset			0.97		
can be moody			0.86		
remains calm in tense situations			-		
gets nervous easily			0.69		
does a thorough job				0.66	
can be somewhat careless				-	
is a reliable worker				-	
tends to be disorganized				0.64	
tends to be lazy				0.6	
perseveres until the task is finished				0.7	
does things efficiently				-	
makes plans and follow through with them				-	
is easily distracted				0.63	
tends to find fault with others					0.85
is helpful and unselfish with others					0.97
starts quarrels with others					0.86
has a forgiving nature					-
is generally trusting					0.82
can be cold and aloof					-
is considerate and kind to almost everyone					0.97
is sometimes rude to others					0.95
likes to cooperate with others					-
Cronbach's α	0.94	0.88	0.88	0.61	0.9

Note. Items shown in original English wording. "-" reflects items deleted due to weak loadings

Table 3

Descriptive Statistics

Profile	N	Male	Female	Other	Recruitment Ex. %
Profile 1	195	82	113		43 %
Profile 2	165	68	97		38 %
Profile 3	173	71	102		43 %
Profile 4	176	69	106	1	41 %

Table 4

Age Dispersion

Profile	Under 18	18-24	25-34	35-44	45-54	55-64	65-74
Profile 1	0	43	103	12	18	18	1
Profile 2	0	41	83	11	14	15	1
Profile 3	0	43	89	11	14	15	1
Profile 4	1	40	98	10	12	14	1

Table 5

Descriptives Profile 1

Trait	Mean	Std. Deviation	Coefficient of Variation
Extraversion	4.12	0.816	0.198
Emotional Stability	3.55	0.832	0.234
Conscientiousness	3.77	0.921	0.244
Agreeableness	4.14	0.897	0.216
Openess to Experience	4.1	0.849	0.207

Table 6

Descriptives Profile 2

Trait	Mean	Std. Deviation	Coefficient of Variation
Extraversion	3.79	0.974	0.257
Emotional Stability	3.63	0.798	0.220
Conscientiousness	3.88	0.882	0.227
Agreeableness	4.16	0.775	0.186
Openess to Experience	3.79	0.852	0.225

Table 7

Descriptives Profile 3

Trait	Mean	Std. Deviation	Coefficient of Variation
Extraversion	4.01	0.803	0.201
Emotional Stability	3.51	0.826	0.235
Conscientiousness	3.6	0.901	0.250
Agreeableness	4.09	0.701	0.171
Openess to Experience	4.06	0.833	0.205

Table 8

Descriptives Profile 4

Trait	Mean	Std. Deviation	Coefficient of Variation
Extraversion	3.89	0.925	0.238
Emotional Stability	3.48	0.835	0.240
Conscientiousness	3.77	0.922	0.245
Agreeableness	3.77	0.853	0.227
Openess to Experience	4.02	0.878	0.219

Table 9

Overall Means and ICC's of Personality Traits

	Raters' average estiamte of profiles		
Trait	M	(SD)	ICC
Extraversion	4.42	0.879	0.84*
Emotional Stability	3.55	0.823	-0.80
Conscientiousness	4.25	0.907	0.51
Agreeableness	3.88	0.807	-0.94
Openess to Experience	3.54	0.853	0.80*

* ICC is significant at the 0.05 level

Table 10

The Effect of Recruitment Experience on Ratings

	Profile 1		Profile 2		Profile 3		Profile 4	
	t	Sig. (2-tailed)	t	Sig. (2-tailed)	t	Sig. (2-tailed)	t	Sig. (2-tailed)
Extraversion	0.746	0.457	0.043	0.966	1.702	0.091	1.733	0.085
Emotional Stability	0.616	0.539	0.121	0.904	0.353	0.725	0.578	0.564
Conscientiousness	0.759	0.449	1.390	0.166	-0.886	0.377	0.098	0.922
Agreeableness	0.343	0.732	0.246	0.806	-0.208	0.836	0.733	0.464
Openness	0.936	0.350	1.877	0.062	-0.239	0.811	1.558	0.121

Table 11

Accuracy Data Based on the Peer-Report Personality Questionnaire

Profile data	Extraversion	Openness
Profile 1		
Correct score (mean)	4.14	4
% correct ratings	46.7%	42.6%
Accuracy score	26.7	22.6
Profile 2		
Correct score (mean)	4.64	4.62
% correct ratings	64.9%	67.9%
Accuracy score	24.9	27.9
Profile 3		
Correct score (mean)	4.57	3.28
% correct ratings	79.2%	19.7%
Accuracy score	39.2	-0.3
Profile 4		
Correct score (mean)	5	2.63
% correct ratings	26.1%	22.73%
Accuracy score	6.1	-17.27
Total accuracy score	96.9	32.93

Table 12

Accuracy Data Based on the Self-Report Personality Questionnaire

Profile data	Extraversion	Openness
Profile 1		
Correct score (mean)	3.83	2.67
% correct ratings	46.7%	21 %
Accuracy score	26.7	-19
Profile 2		
Correct score (mean)	4.68	3.67
% correct ratings	64.9%	73.3%
Accuracy score	24.9	33.3
Profile 3		
Correct score (mean)	4.17	3.5
% correct ratings	52.6%	63.6%
Accuracy score	32.6	23.6
Profile 4		
Correct score (mean)	5	4.33
% correct ratings	26.1%	77.3%
Accuracy score	6.1	37.3
Total accuracy score	90.3	75.2

Table 13

Accuracy Data Based on the Peer-Report Personality Questionnaire

Profile data		Emotional Stability	Conscientiousness	Agreeableness
Profile 1				
	Correct score (mean)	4.5	3.9	4.75
	% correct ratings	49.2%	45.1%	38.5%
	Accuracy score	9.2	25.1	18.5
Profile 2				
	Correct score (mean)	2.5	3.8	4.42
	% correct ratings	46.1%	47.9%	81.8%
	Accuracy score	6.1	27.9	41.8
Profile 3				
	Correct score (mean)	2.13	4.3	3.08
	% correct ratings	1.7%	58.4%	13.3
	Accuracy score	-18.3	18.4	-6.7
Profile 4				
	Correct score (mean)	3.13	4.1	2.92
	% correct ratings	30.3%	45.5%	25%
	Accuracy score	10.3	25.5	5
Total accuracy score		7.3	96.9	58.6

Table 14

Accuracy Data Based on the Self-Report Personality Questionnaire

Profile data		Emotional Stability	Conscientiousness	Agreeableness
Profile 1				
	Correct score (mean)	3.8	3.75	4.75
	% correct ratings	35.9%	45.1%	38.5%
	Accuracy score	15.9	25.1	18.5
Profile 2				
	Correct score (mean)	4	4.25	3.75
	% correct ratings	39.4%	47.9%	44.8%
	Accuracy score	19.4	27.9	24.8
Profile 3				
	Correct score (mean)	3.8	4	3
	% correct ratings	39.9%	43.9%	13.3%
	Accuracy score	19.9	23.9	-6.7
Profile 4				
	Correct score (mean)	2.6	5	4
	% correct ratings	52.9%	21.6%	47.7%
	Accuracy score	12.9	1.6	27.7
Total accuracy score		68.1	78.5	64.3

Image 1

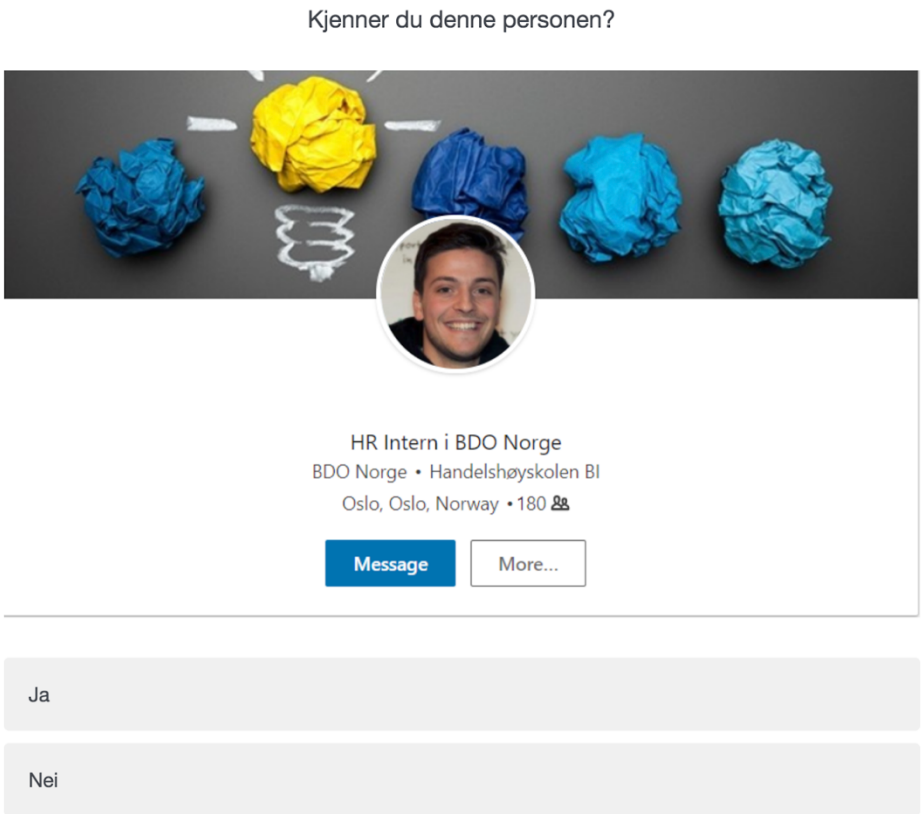

Image 2

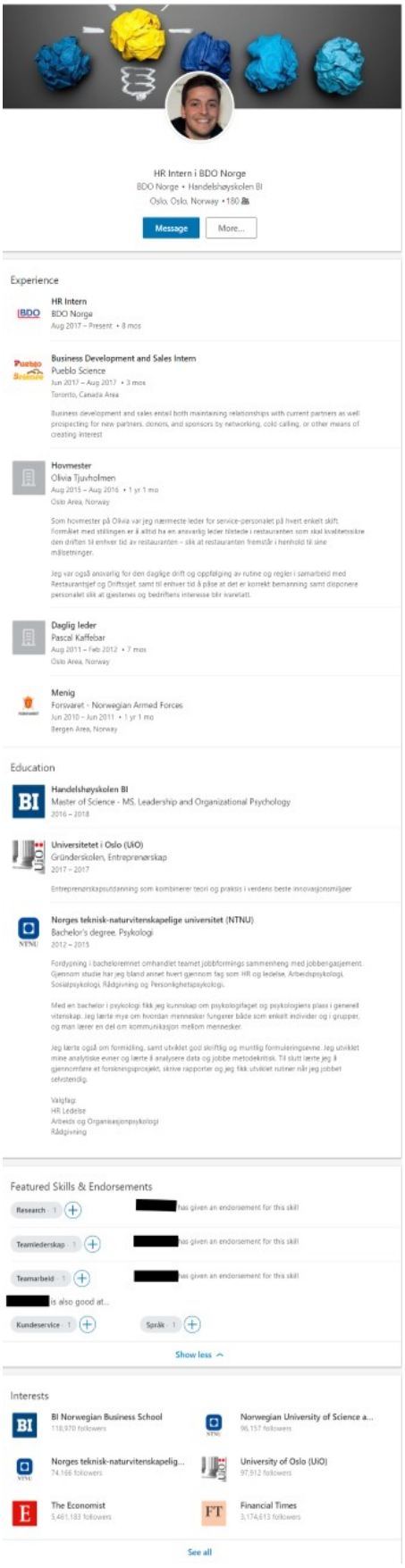
HR Intern i BDO Norge
BDO Norge • Handelshøyskolen BI
Oslo, Oslo, Norway • 180
Message
More...
Experience
HR Intern
BDO Norge
Aug 2017 – Present • 8 mos
Business Development and Sales Intern
Pueblo Science
Jun 2017 – Aug 2017 • 3 mos
Toronto, Canada Area
Business development and sales entail both maintaining relationships with current partners as well prospecting for new partners, donors, and sponsors by networking, cold calling, or other means of creating interest
Hovmester
Olivia Tjuvholmen
Aug 2015 – Aug 2016 • 1 yr 1 mo
Oslo Area, Norway
Som hovmester på Olivia var jeg nærmeste leder for service-personalet på hvert enkelt skift. Formålet med stillingen er å alltid ha en ansvarlig leder tilstede i restauranten som skal kvalitetssikre den driften til enhver tid av restauranten – slik at restauranten fremstår i henhold til sine målsetninger.
Jeg var også ansvarlig for den daglige drift og oppfølging av rutine og regler i samarbeid med Restaurantsjef og Driftssjef, samt til enhver tid å påse at det er korrekt bemanning samt disponere personalet slik at gjestenes og bedriftens interesse blir ivaretatt.
Daglig leder
Pascal Kaffebar
Aug 2011 – Feb 2012 • 7 mos
Oslo Area, Norway
Menig
Forsvaret - Norwegian Armed Forces
Jun 2010 – Jun 2011 • 1 yr 1 mo
Bergen Area, Norway
Education
Handelshøyskolen BI
Master of Science - MS, Leadership and Organizational Psychology
2016 – 2018
Universitetet i Oslo (UiO)
Gründerskolen, Entreprenørskap
2017 – 2017
Entreprenørskapsutdanning som kombinerer teori og praksis i verdens beste innovasjonsmiljøer
Norges teknisk-naturvitenskapelige universitet (NTNU)
Bachelor's degree, Psykologi
2012 – 2015
Fordypning i bacheloremnet omhandlet temaet jobbformings sammenheng med jobbengasjement. Gjennom studie har jeg blant annet hvert gjennom fag som HR og ledelse, Arbeidspsykologi, Sosialpsykologi, Rådgivning og, Personlighetspsykologi.
Med en bachelor i psykologi fikk jeg kunnskap om psykologifaget og psykologiens plass i generell vitenskap. Jeg lærte mye om hvordan mennesker fungerer både som enkelt individer og i grupper, og man lærer en del om kommunikasjon mellom mennesker.
Jeg lærte også om formidling, samt utviklet god skriftlig og muntlig formuleringsevne. Jeg utviklet mine analytiske evner og lærte å analysere data og jobbe metodekritisk. Til slutt lærte jeg å gjennomføre et forskningsprosjekt, skrive rapporter og jeg fikk utviklet rutiner når jeg jobbet selvstendig.
Valgfag:
HR Ledelse
Arbeids og Organisasjonspsykologi
Rådgivning
Featured Skills & Endorsements
Research · 1
[redacted] has given an endorsement for this skill
Teamledership · 1
[redacted] has given an endorsement for this skill
Teamarbeid · 1
[redacted] has given an endorsement for this skill
[redacted] is also good at...
Kundeservice · 1
Språk · 1
Show less
Interests
BI Norwegian Business School
118,970 followers
Norwegian University of Science a...
96,157 followers
Norges teknisk-naturvitenskapelig...
74,166 followers
University of Oslo (UiO)
97,912 followers
The Economist
3,461,183 followers
Financial Times
3,174,613 followers
See all

Image 3

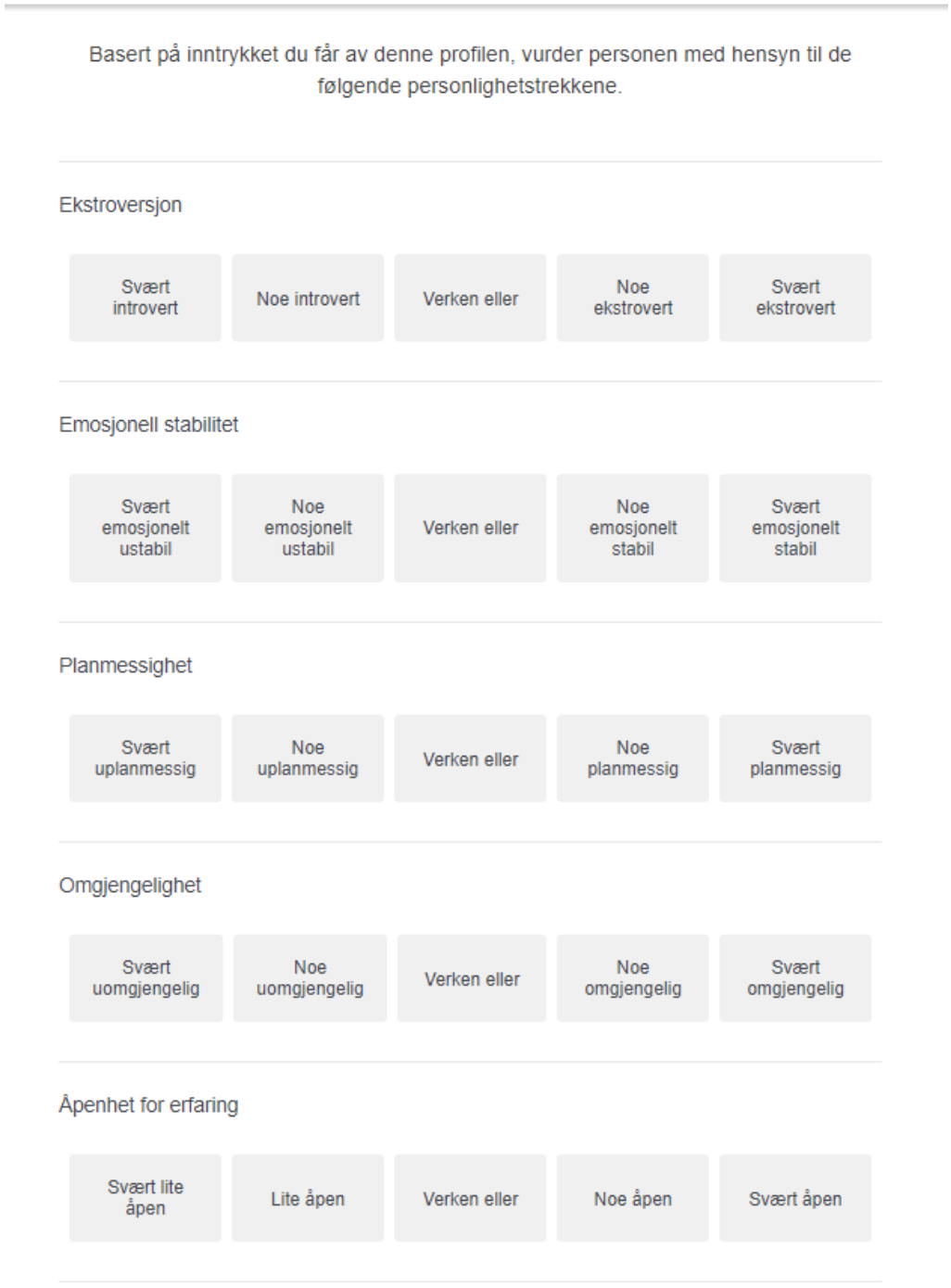
Basert på inntrykket du får av denne profilen, vurder personen med hensyn til de følgende personlighetstrekkene.
Ekstroversjon
Svært introvert
Noe introvert
Verken eller
Noe ekstrovert
Svært ekstrovert
Emosjonell stabilitet
Svært emosjonelt ustabil
Noe emosjonelt ustabil
Verken eller
Noe emosjonelt stabil
Svært emosjonelt stabil
Planmessighet
Svært uplanmessig
Noe uplanmessig
Verken eller
Noe planmessig
Svært planmessig
Omgjengelighet
Svært uomgjengelig
Noe uomgjengelig
Verken eller
Noe omgjengelig
Svært omgjengelig
Åpenhet for erfaring
Svært lite åpen
Lite åpen
Verken eller
Noe åpen
Svært åpen

Image 4

Trekkbeskrivelse

De som scorer høyt på **ekstroversjon** er gjerne sosiale, trives i andres selskap og store grupper, er gjerne selvsikre, aktive og pratsomme. **Introverte** personer er gjerne reserverte, selvstendige, og foretrekker ofte å være alene/trives ofte best i eget selskap. De er gjerne mer lukket, tilbaketrukket og forsiktige.

De som er **emosjonelt stabile** er gjerne rolige, behersket og avslappet. De er i stand til å møte stressende situasjoner uten å bli opprørt. De som er **emosjonelt ustabile** tenderer å oppleve negative følelser som frykt, nedstemthet, forlegenhet, og avsky. De kan oppleve irrasjonelle tanker, ha dårligere evne til å kontrollere impulser og til å håndtere stress.

De som scorer høyt på **planmessighet** bedriver gjerne aktiv planlegging og organisering, er målbevisste, viljesterke og besluttsomme. De er også samvittighetsfulle, punktlige og pålitelige. Personer som scorer lavt på dette trekket behøver ikke mangle moralske prinsipper, men følger de mindre ofte. De er gjerne mer avslappet og noe mindre strukturert i sin tilnærming til oppgaver og mål.

De som scorer høyt på **omgjengelighet** er altruistiske, føler med andre, liker å hjelpe og tror at andre vil være tilsvarende hjelpsomme. De som scorer lavt på dette trekket er mer egosentriske, skeptiske til andres intensjoner og konkurranseorientert fremfor samarbeidsvillig.

Personer som scorer høyt på **åpenhet** er gjerne nysgjerrige, villige til å følge nye ideer og ukonvensjonelle verdier, og er villig til å stille spørsmål ved autoriteter. De er ofte åpne for nye etiske-, sosiale-, og politiske ideer. Dette er riktignok ikke synonymt med prinsippløshet. De som scorer lavt på denne dimensjonen er gjerne mer konvensjonelle og konservative, og foretrekker ofte det kjente fremfor det nye.