Aguado, David; Rico, Ramón; Rubio, Víctor J.; Fernández, Lucía
Applicant reactions to social network web use in personnel selection and assessment

Journal of Work and Organizational Psychology

Applicant reactions to social network web use in personnel selection and assessment

David Aguado*, Ramón Rico, Víctor J. Rubio, Lucía Fernández

Universidad Autónoma de Madrid, Spain

ABSTRACT

Human Resource (HR) professionals are increasingly using Social Networking Websites (SNWs) for personnel recruitment and selection processes. However, evidence is required regarding their psychometric properties and their impact on applicant reactions. In this paper we present and discuss the results of exploring applicant reactions to either the use of a professional SNW (such as LinkedIn) or a non-professional SNW (such as Facebook). A scale for assessing applicant reactions was applied to 124 professionals. The results showed more positive attitudes to the use of professional SNWs compared with non-professional SNWs. Both gender and age moderated these results, with females and young applicants having a less positive attitude than males and older participants towards the use of non-professional SNWs.

Reacciones de los candidatos ante el uso de las redes sociales en selección y evaluación de personal

RESUMEN

Los profesionales de recursos humanos cada vez utilizan con mayor frecuencia las plataformas de redes sociales [*Social Networking Webs*, SNW] en los procesos de reclutamiento y selección de personal. Sin embargo, existe una necesidad clara de obtención de evidencias psicométricas acerca del impacto en los candidatos. En el presente artículo presentamos y comentamos los resultados de una exploración de las reacciones de los candidatos ante la utilización en el proceso selectivo de las SNW profesionales (i.e., LinkedIn) y las no profesionales (i.e., Facebook). Utilizamos una escala de reacciones de los candidatos aplicada a una muestra de 124 profesionales. Los resultados muestran una actitud significativamente más positiva hacia la utilización de los SNW profesionales que hacia los SNW no profesionales. El género y la edad parecen influir en dicha valoración en el caso de las SNW no profesionales. Las mujeres y los jóvenes tienen un juicio significativamente más negativo sobre la utilización de las SNW no profesionales que los varones y las personas de más edad.

After Internet revolution in the 90s, a new hyper-connected world has emerged since 2005 due to the rise of Social Networking Webs (SNWs) (i.e., Facebook, LinkedIn, blogs, etc.). SNWs are applications aimed at creating and swapping content that users have developed themselves with other uses of these sites (Kaplan & Haenlein, 2010). The monthly use rates are astonishing, with up to more than 1.5 million Facebook users, over 4 million Google+ users, and up to 3.3 and 2 million Twitter and LinkedIn users, respectively (Internet Live Stats, 2016).

Companies have not remained oblivious to such changes and have started using SNWs to increase their competitiveness. Particularly, the use of SNWs has been widely extended among human resources recruitment and selection processes (Stopfer & Gosling, 2013). Recent figures show that up to 83% of big international

* Corresponding author.
E-mail address: david.aguado@uam.es (D. Aguado).

companies use SNWs for personnel recruiting (LinkedIn 83%, Facebook 78%, and Twitter 45%; Society for Human Resource Management, 2011). A recent survey among Spanish HR administrators showed that 69% use SNWs for recruitment and selection (LinkedIn, 77%, Twitter, 29%, Facebook, 24%), 79% believe that those applicants who are active users of SNWS are more employable, and 33% confirmed that they had rejected applicants on the basis of the information contained in SNWs (Infoempleo-Adecco, 2014).

A clear distinction between recruitment and selection processes should be made when assessing the use of SNWs. Recruitment includes a set of activities aimed at attracting an acceptable group of candidates to a position. Conversely, selection is targeted at choosing from those who were attracted to the position the candidate who is ideally most suited for the position. This entails the use of assessment tools (Wilton, 2013). Such a distinction must be made because although the initial use of SNWs was restricted to recruitment, their extensive use has now become a format in which significant assessments are made.

Nonetheless, using SNWs for recruitment and selection assessment practices lacks *a priori* prescriptions about what should be done and how to proceed. It is defined as the process of reviewing applicants' existent information on the web and social networks (i.e., Facebook, LinkedIn) in order to make decisions regarding their hiring (Brown & Vaughn, 2011). However, whether such reviewing is focused on career profiles, other biographic information, or inferences about other non explicit dimensions or the user's self-presentation, it does not seem to be carried out in a methodic, systematic, and/or scientifically way. In fact, despite the significant extension of the use of SNWs according to corporate reports, research into their use and effects in terms of personnel selection issues is still scarce (Nikolaou, 2014).

Roth, Bobko, Van Iddekinge, and Thatcher (2016) believe that SNWs should be considered as selection tools, and therefore they should be studied according to their reliability and validity as assessment standards. Additionally, it is also relevant how examinees perceive the use of SNWs when they apply for a position (Roth et al., 2016). Positive applicant reactions to the general selection process are related to increased levels in self-esteem, greater organizational commitment,and a higher drive to recommend the organization to other people (Bauer, Maertz, Dolen, & Campion, 1998; Bauer et al., 2001; Bauer, Truxillo, Paronto, Campion, & Weekley, 2004; Fletcher, 1991; Maertz, Bauer, Mosley, & Posthuma, 2004; Ployhart & Ryan, 1997, 1998). However, despite the growing awareness of the psychological impact of the selection processes on applicants, much less is known about their reaction to the use of tools such as SNWs (Kluemper, 2013). Thus, it is necessary to explore the individual applicants' reaction to the use of SNWs in order to improve their use as assessment tools in recruitment and selection processes (Brown & Vaughn, 2011; Kluemper, 2013; Roth et al., 2016; Ryan & Ployhart, 2014).

Accordingly, the present paper attempts to analyze applicants' reactions to SNWs when used for this purpose. Unlike previous studies, we have taken into consideration the specific SNWs used: (a) those designed for recreational purposes, such as Facebook, and (b) those which have professional uses, such as LinkedIn. We have also evaluated factors such as the role of different sociodemographic variables (i.e. gender, age, and professional status on the applicants' reactions). The aim of this work is to improve the use of SNWs as recruitment and selection tools by practitioners in human resources.

Theoretical Background and Hypotheses

Applicant reactions have been used to study applicants' perceptions of the selection process (Anderson, Salgado, & Hulsheger,

2010; Chan & Schmitt, 2004; Hausknecht, Day, & Thomas, 2004; Ryan & Ployhart, 2000). This study addresses both the attitudes, emotions, and cognitions people exhibit when facing a recruitment and selection process (Ryan & Ployhart, 2000), and their behavioral intentions (McLarty & Whitman, 2015).

Several approaches have been used, although Chan and Schmitt's model (Chan & Schmitt, 2004; Schmitt & Chan, 1999) is the most frequently used theoretical framework in most studies in the field. The model suggests that there are three specific dimensions to be taken into account: (a) the face validity the applicant attributes to the different assessment tools they had to tackle, i.e., to what extent the candidate considers the assessment tools are related to the job, (b) applicant's perception about whether such assessment tools have the capacity to predict future job performance, and (c) the applicant's perception about the fairness of assessment tools. These three dimensions combined represent the overall applicant reactions to the selection assessment procedures. The former, face validity and predictive validity, are related to the relationships between the job applied for and the assessment tools (Chan, Schmitt, Jennings, Clause, & Delbridge, 1998; Gilliland, 1993, 1994; Gilliland & Chan, 2001), and relate to the face characteristic of the selection process. The latter, perception of fairness, is related to the global judgment process (Hausknecht et al., 2004).

It should be noted that SNWs differ from each other with respect to the amount and type of information they are aimed at obtaining. There is a key distinction between those aimed at recreational or non-professional use (npSNWs, i.e., Facebook) and those professionally oriented (pSNWs, i.e., LinkedIn) (Nikolaou, 2014). npSNWs users usually post personal information such as personal events and photos (Stopfer & Gosling, 2013). On the contrary pSNWs users provide information about their current and past positions, the professional projects that they have been involved in, as well as their contributions to professional organizations (Nikolaou, 2014).

HR administrators could use these networks in different ways. The pSNWs are supposed to be used for a person-job match, whereas the npSNWs are used for a person-organization fit (Bangerter, Roulin, & Konig, 2012; Roulin & Bangerter, 2013). In addition, applicants' perception about their use might also be different. Studies have indicated that the examinees showed a more positive attitude toward some assessment instruments (i.e., interviews, knowledge tests, performance samples) than toward other instruments (intelligence or personality tests). They also showed strong negative attitudes toward other tools, such as graphology (e.g., Anderson et al., 2010). Therefore, the selection process could be more positively or negatively appraised according to the tools the applicant has to face (Reeve & Schultz, 2004).

Previous research into applicant reactions to SNWs is scarce and inconclusive. Even though there is evidence of negative reactions to Facebook (Gustafson, 2012), there is also evidence of non-negative reactions to the use of SNWs (Sanchez, Roberts, Freeman, & Clayton, 2012), as well as a lack of a relationship between the negative reactions and a decline in the appeal of the organization or any behavioral intention to choose them (Siebert, Downes, & Christofer, 2012). However, the specific characteristics of SNWs (particularly npSNWs) should lead to a negative appraisal by the applicant because the information posted by the users is not intended for assessment purposes (Black, Johnson, Takach, & Stone, 2014). In fact, the more intrusive the SNWs exam, the greater the applicants' repudiation of their use (Siebert et al., 2012). Moreover, people seeking a job seem to value pSNWs (i.e., LinkedIn) as a more effective tool for finding work than npSWNs (i.e., Facebook; Nikolaou, 2014). Accordingly, we set the following hypothesis:

*H*1. Participants will show more negative reactions to npSNWs compared to pSNWs when they are used as selection tools.

According to the very few studies that exist, it appears that the applicant's gender, age, and professional level may influence their

perception of the use of SNWs as selection assessment tools. Gender has been shown to be related to some aspects of the use of SNWs when seeking employment (Nikolaou, 2014): men are more active than women in the frequency of SNWs use and perceive such networks as effective tools for looking for a job. Conversely, women usually make a more thorough use of networks, spending more time on them than men. Thus, the results showed that men use a more superficial and rapid use of the SNWs while women have a more detailed approach to getting a job. Moreover, women are more concerned about both the security of their personal information and the consequences of free access to privacy (Fogel & Nehmad, 2009).

Overall, the results described above show gender differences in the use of SNWs to find a job in aspects such as privacy, confidentiality, and risk perception of the information revealed. Therefore, we would expect such concerns to influence the different reactions to the use of SNWs in selection assessment of women and men. It is hypothesized that:

*H*2. Women will show more negative reactions to npSNWs, where the information contained is not aimed at searching for a job, than men; but not to pSNWS where the information contained is aimed at searching for a job.

Additionally, age appears to play a role in people's interactions with SNWs. Nikolaou's (2014) study showed that the older the individual, the greater the use of pSNWs when compared to other channels such as job search websites or npSNWs. Moreover, the effectiveness appraisal of the latter negatively correlated with age. Therefore, it seems that the older the individual, the higher the criticism towards npSNWs and the more prone they are to using pSNWs which are viewed as more effective when seeking employment. It is hypothesized that:

*H*3. The older the individual, the more negative the reaction to the npSNWs when used for selection assessment but not to the pSNWs.

Moreover, to the best of our knowledge, there is no empirical evidence about the role of employment status (hired vs. unemployed) in the examinees' perceptions of the SNWs in selection processes. Assuming that looking for a job is one of the most important reasons for joining pSNWs (Stopfer & Gosling, 2013) and that networking is one of the most effective activities in finding work (Van Hoye, Van Hooft, & Lievens, 2009), SNWs would be expected to be one of the most relevant tools in this endeavour. Nevertheless, those who are not actively seeking a job might perceive the use of SNWs as an illegitimate intrusion into their privacy. It is hypothesized that:

*H*4. Participants actively looking for a job will have a more positive attitude to the use of SNWs in selection processes than those who are not actively seeking employment at this moment.

Method

Participants

The sample consisted of 124 participant (68% women). Age ranged from 23 to 44 years old (16.5% younger than 25 years old, 68% from 25 to 34, and 15.5% older than 34). All of them were Spanish and their native language was Spanish. They were recruited using a snow-ball technique through the researchers' social networks (Rotondo, Carlson, & Kincaid, 2003). Regarding their employment status, 57% were unemployed and actively seeking employment. Thirty-one percent of the participants had been involved in a selection process during the last three months. Forty-eight percent of the participants thought that their SNW profile had been reviewed.

Measures

Sociodemographic data. The sociodemographic data of the participants with regard to their gender, age group, employment status, participation in previous selection processes, and their beliefs about their SNW profile being used were gathered using an *ad hoc* survey. Regarding age, three different age groups were set up according to their time in the labor market: (1) those seeking their first job, or who were not effectively settled in a permanent job and who were younger than 25 years old, (2) those who were in the first steps of their career development, with an age range from 25 to 35, and (3) those who represented professional stability and development in their careers and were older than 35. On the other hand, employment status was categorized as employed vs. actively seeking a job and previous selection process participation considered whether or not the applicant had attended an interview in the last three months.

Applicant reactions. A Spanish adaptation of the Test Reaction Scale (Chan, Schmitt, Sacco, & DeShon, 1998) was used for assessing both reactions to pSNWs and reactions to npSNWs. A Spanish version was created using the translation-back translation procedure (Brislin, 1970), adapting terms to be used with each specific SNW. The scale consists of 9 items (see Appendix 1) assessing three specific dimensions and a total score: (a) face validity perceptions (items 1, 2, 3), (b) predictive validity perceptions (items 4, 5, 6), c) fairness perception (items 7, 8, 9), and (d) the global perception (the aggregate score). Therefore, 8 different measurements, 4 for pSNWs and 4 for npSNWs, were computed. The reliability of the different measures was higher than .70 in all cases except for npSNWs Face Validity scale, npSNWs Predictive Validity scale, and pSNWs Predictive Validity scale (.63, .57, and .67, respectively, most of them slightly lower than .70).

Procedure

Participants were surveyed on line through Google Drive. In order to control for the effect of the presentation order, the SNW order was balanced using a sequential assignment which the participants were able to access. Participants had one week to complete the survey.

Results

Table 1 shows the descriptive statistics and intercorrelations of the different measurements used. The results show that Global perception of pSNWs was 3.13 while Global perception of npSNWs was 1.97. The most positive attitude regarding pSNWs (3.66) and npSNWs (2.36) was toward its face validity. Conversely, the worse attitude toward npSNWs related to its fairness (1.65). Finally, the attitude toward predictive validity in npSNWs was 1.90. Predictive validity and fairness perception mean scores of pSWNWs were similar (2.91 and 2.83 respectively).

Looking at the correlations between measurements, it can be appreciated that applicants' attitudes regarding the different facets of each SNW are significantly related. npSNWs dimensions correlate from .40 to .56. and pSNWs correlate from .26 to .61. Conversely, correlations dipped when comparing npSNWs and pSNWs: there were significant positive correlations between pSNWs-npSNWs Fairness (r_{xy} = .26, p < .01) and Perceived Predictive Validity (r_{xy} = .31, p < .01) scores. On the contrary, Face Validity negatively correlated between the two SNWs (r_{xy} = -.18, p < .05).

Hypothesis Testing

In order to test the first hypothesis, regarding whether an applicants' reaction to one or another of the SNWs varied, a *t*-test was

Table 1
Descriptives, Inter-correlations and Cronbach's Alphas of the Participants' Perceptions (Face Validity, Predictive Validity, Fariness, and Global) towards the Use of npSNWs and pSNWs in Selection and Assessment.

		Mean	SD	1	2	3	4	5	6	7	8
1	npSNW-FaceValidity	2.36	0.80	(.63)	.458**	.404**	.785**	−.179*	.134	−.054	−.042
2	npSNW-PredictiveValidity	1.90	0.67		(.57)	.566**	.817**	−.008	.306**	.123	.177*
3	npSNW-FairnessPerception	1.65	0.77			(.77)	.816**	−.123	.244**	.261**	.174
4	npSNW-GlobalPerception	1.97	0.60				(.80)	−.135	.278**	.133	.122
5	pSNW-FaceValidity	3.66	0.79					(.71)	.260**	.409**	.686**
6	pSNW-PredictiveValidity	2.91	0.81						(.67)	.611**	.790**
7	pSNW-FairnessPerception	2.83	0.97							(.79)	.880**
8	pSNW-GlobalPerception	3.13	0.68								(.81)

Note. Cronbach alphas in main diagonal (in brackets); npSNW-Facevalidity: face validity perceptions towards non-professional SNWs; npSNW-PredictiveValidity: predictive validity perceptions towards non-professional SNWs; npSNW-FairnessPerception: fairness perception towards non-professional SNWs; npSNW-Global Perception: the global perception (the aggregate score) towards non-professional SNWs; pSNW-FaceValidity: face validity perceptions towards professional SNWs; pSNW-PredictiveValidity: predictive validity perceptions towards professional SNWs; pSNW-FairnessPerception: fairness perception towards professional SNWs; pSNW-GlobalPerception: the global perception (the aggregate score) towards professional SNWs.
* $p < .05$, ** $p < .01$.

Table 2
Mean Differences in the Participants' Perceptions: (a) between Non-professional and Professional SNWs, (b) across the Different Reaction Facets towards the Non-professional SNWs, and (c) across the Different Reaction Facets towards the Professional SNWs.

	Cohen's d	t	Sig. (bilateral)
(a) pSNW vs. npSNW			
Global Perception npSNW - Global Perception pSNW	−1.81	−15.252	.001
FaceValidity npSNW - FaceValidity pSNW	−1.64	−11.902	.001
PredictiveValidity npSNW - PredictiveValidity pSNW	−1.36	−12.830	.001
FairnessPerception npSNW - FairnessPerception pSNW	−1.34	−12.246	.001
(b) npSNW reaction facets			
FaceValidity npSNW - PredictiveValidity npSNW	0.82	6.671	.001
FaceValidity npSNW - FairnessPerception npSNW	0.91	9.281	.001
PredictiveValidity npSNW - FairnessPerception npSNW	0.35	4.121	.001
(c) pSNW reaction facets			
FaceValidity pSNW - PredictiveValidity pSNW	0.94	8.620	.001
FaceValidity pSNW - FairnessPerception pSNW	0.94	9.578	.001
PredictiveValidity pSNW - FairnessPerception pSNW	0.09	1.161	.248

Note. $N = 124$; pSNW: professional SNWs; npSNW: non-professional SNWs; Global Perception: the global perception (the aggregate score); FaceValidity: face validity perceptions; PredictiveValidity: predictive validity perceptions; FairnessPerception: fairness perceptions.

carried out. Table 2 shows that when comparing the global perception and the same facets, pSNWs scores were always statistically higher than npSNWs scores, with Global Perception and Perception of Face Validity showing the greatest differences ($d = -1.81$ and $d = -1.64$). When analyzing the different facets of npSNWs with each other, there were significant differences in each pair comparison. Perception of Face Validity was significantly higher than the other two subscales ($d = 0.82$ with Predictive Validity, $d = 0.91$ with Fairness Perception) as was perception of Predictive Validity

regarding Fairness ($d = 0.35$). pSNWs obtained similar results with the perception of Face Validity, which was significantly higher than the other two ($d = 0.94$ in both cases), although in this case there was no significant difference between Perceived Predictive Validity and Fairness. Thus, the results provide support for our first hypothesis.

To test hypothesis 2, 3 and 4, a t-test was used comparing applicants' reactions according to gender, age, and employment status. Tables 3 and 4 show the results obtained.

Table 3
Mean Differences in the Participants' Perceptions towards the SNWs by Gender and Employment Status.

	Gender				Actively Seeking a Job			
	Men (n = 40) Mean (SD)	Women (n = 84) Mean (SD)	t	Sig.	Yes (n = 71) Mean (SD)	No (n = 53) Mean (SD)	t	Sig.
npSNW Face Validity	2.59 (0.83)	2.25 (0.76)	2.269	.025	2.46 (0.87)	2.22 (0.68)	1.704	.091
npSNW Predictive Validity	2.11 (0.69)	1.80 (0.64)	2.460	.015	1.95 (0.69)	1.82 (0.64)	1.061	.291
npSNW Fairness Perception	1.91 (0.91)	1.52 (0.66)	2.671	.009	1.69 (0.83)	1.58 (0.67)	.787	.433
npSNW Global Perception	2.20 (0.66)	1.86 (0.54)	3.101	.002	2.04 (0.65)	1.88 (0.51)	1.487	.140
pSNW Face Validity	3.65 (0.82)	3.66 (0.77)	-0.084	.933	3.76 (0.77)	3.53 (0.79)	1.606	.111
pSNW Predictive Validity	3.09 (0.82)	2.82 (0.79)	1.758	.081	2.90 (0.76)	2.92 (0.87)	-.189	.850
pSNW Fairness Perception	2.89 (0.94)	2.79 (0.99)	0.523	.602	2.89 (0.96)	2.74 (0.99)	.821	.414
pSNW Global Perception	3.21 (0.71)	3.09 (0.66)	0.910	.365	3.18 (0.64)	3.06 (0.73)	.935	.352

Note. npSNW-FaceValidity: face validity perceptions towards non-professional SNWs; npSNW-PredictiveValidity: predictive validity perceptions towards non-professional SNWs; npSNW-FairnessPerception: fairness perception towards non-professional SNWs; npSNW-Global Perception: the global perception (the aggregate score) towards non-professional SNWs; pSNW-FaceValidity: face validity perceptions towards professional SNWs; pSNW-PredictiveValidity: predictive validity perceptions towards professional SNWs; pSNW-FairnessPerception: fairness perception towards professional SNWs; pSNW-Global Perception: the global perception (the aggregate score) towards professional SNWs.

Table 4
Mean Differences in the Participant Perceptions towards the SNWs by Age.

	Age			Group Differences					
	Group [1] age <25 (N = 20)	Group [2] age 25-34 (N = 85)	Group [3] age >34 (N = 19)	1 & 2		1 & 3		2 & 3	
	Mean (SD)	Mean (SD)	Mean (SD)	t	Sig.	t	Sig.	t	Sig.
npSNW Face Validity	1.98 (0.71)	2.33 (0.71)	2.91 (0.97)	−1.932	**.056**	−3.411	**.002**	−3.022	**.003**
npSNW Predictive Validity	1.92 (0.63)	1.82 (0.65)	2.21 (0.75)	0.580	.563	−1.331	.191	2.283	**.025**
npSNW Fairness Perception	1.75 (0.80)	1.51 (0.66)	2.14 (1.00)	1.388	.168	−1.352	.185	−3.395	**.001**
npSNW Global Perception	1.88 (0.60)	1.89 (0.54)	2.42 (0.69)	−0.031	.975	−2.603	**.013**	−3.705	**.001**
pSNW Face Validity	3.65 (0.78)	3.72 (0.79)	3.39 (0.77)	−0.367	.714	1.065	.294	1.687	.095
pSNW Predictive Validity	2.87 (0.45)	2.91 (0.85)	2.96 (0.91)	−0.198	.843	−0.431	.669	−0.269	.788
pSNW Fairness Perception	2.85 (0.93)	2.83 (0.97)	2.79 (1.10)	0.095	.925	0.186	.853	0.151	.880
pSNW Global Perception	3.12 (0.68)	3.15 (0.70)	3.05 (0.75)	−0.177	.860	0.368	.718	0.582	.562

Note. npSNW-FaceValidity: face validity perceptions towards non-professional SNWs; npSNW-PredictiveValidity: predictive validity perceptions towards non-professional SNWs; npSNW-FairnessPerception: fairness perception towards non-professional SNWs; npSNW-Global Perception: the global perception (the aggregate score) towards non-professional SNWs; pSNW-FaceValidity: face validity perceptions towards professional SNWs; pSNW-PredictiveValidity: predictive validity perceptions towards professional SNWs; pSNW-FairnessPerception: fairness perception towards professional SNWs; pSNW-Global Perception: the global perception (the aggregate score) towards professional SNWs.
Figures in boldface are those statistically significant.

Males and females showed differential reactions in the use of npSNWs in recruitment and selection assessment processes. There were significant differences in all the measurements except for Perception of Predictive Validity. Women scored significantly lower than men. However, these differences did not appear in pSNWs. Therefore, the results just partially support hypothesis 2.

With regard to age (see Table 4), there were significant differences but only for the reactions to the npSNWs. Specifically, the group of older people (i.e., those over 34) was more prone to showing a positive reaction to the use of npSNWs when compared to the other groups: they showed more positive perceptions to Face Validity than the other groups and more positive perceptions to Predictive Validity and Fairness perceptions than the 25-34 year old group. Likewise, this group showed more positive reactions to npSNWs Face Validity than the group who was younger than 25.

In summary, the results show that both age and gender play a role in participants' attitudes towards npSNWs but not towards pSNWs. Particularly, and contrary to what was hypothesized, older participants showed more positive attitudes towards the use of npSNWs than younger ones. Therefore, our third hypothesis is not supported

In addition, there were no significant differences either in pSNWs or in npSNWs regarding employment status (see Table 3). Therefore, hypothesis 4 cannot be supported either.

Ancillary Analysis

Although specific hypotheses have not been proposed, we have explored whether or not there are differences in candidates' perception of the use of SNWs depending on their participation in selection processes in the three months prior to their participation in the research, and on whether or not they believe their profile in SNWs has been used for previous selection processes the candidate had participated in. As Table 5 shows, neither those who have recently participated in a selection process nor those who think that their SNW profile has been reviewed showed any significant difference in attitudes towards the use of such tools in the selection assessment processes.

Discussion

The present paper has examined applicants' reactions to the use of SNWs as assessment tools for recruitment and selection. As previous studies seem to suggest (Black et al., 2014; Nikolaou, 2014; Siebert et al., 2012), examinees showed significantly more positive reactions to pSNWs than to npSNWs. Similarly, gender and age seem to play a role in the perceptions of the use of such tools: women were significantly more concerned about the use of npSNWs for selection than men, although there were no differences regarding pSNWs. Regarding age, the older participants were

Table 5
Mean Differences in the Participants' Perceptions towards the SNWs by Participation or not in Previous Selection Processes and Beliefs about their SNW Profile Being Used.

	Participation in Previous Selection Processes (during the last 3 months)				Beliefs about their SNW Profile Being Used			
	Yes	No	t	Sig.	Yes	No	t	Sig.
	(n = 38) Mean (SD)	(n = 86) Mean (SD)			(n = 59) Mean (SD)	(n = 65) Mean (SD)		
npSNW Face Validity	2.28 (0.74)	2.39 (0.82)	−0.74	.462	2.45 (0.84)	2.28 (0.76)	1.15	.253
npSNW Predictive Validity	1.77 (0.55)	1.95 (0.71)	−1.39	.166	1.90 (0.67)	1.90 (0.68)	0.01	.994
npSNW Fairness Perception	1.53 (0.73)	1.70 (0.78)	−1.17	.243	1.64 (0.83)	1.66 (0.71)	−0.13	.897
npSNW Global Perception	1.86 (0.55)	2.02 (0.62)	−0.67	.506	3.77 (0.77)	3.55 (0.79)	1.57	.119
pSNW Face Validity	3.59 (0.88)	3.69 (0.74)	0.03	.973	2.98 (0.79)	2.84 (0.82)	0.98	.330
pSNW Predictive Validity	2.91 (0.96)	2.91 (0.73)	0.66	.510	3.00 (0.93)	2.67 (0.99)	1.92	.057
pSNW Fairness Perception	2.91 (1.15)	2.79 (0.88)	−1.35	.180	1.99 (0.65)	1.94 (0.55)	0.45	.651
pSNW Global Perception	3.14 (0.85)	3.13 (0.59)	0.07	.943	3.25 (0.66)	3.02 (0.68)	1.92	.057

Note. N = 124; npSNW-FaceValidity: face validity perceptions towards non-professional SNWs; npSNW-PredictiveValidity: predictive validity perceptions towards non-professional SNWs; npSNW-FairnessPerception: fairness perception towards non-professional SNWs; npSNW-Global Perception: the global perception (the aggregate score) towards non-professional SNWs; pSNW-FaceValidity: face validity perceptions towards professional SNWs; pSNW-PredictiveValidity: predictive validity perceptions towards professional SNWs; pSNW-FairnessPerception: fairness perception towards professional SNWs; pSNW-Global Perception: the global perception (the aggregate score) towards professional SNWs.

more in favor than their younger counterparts regarding npSNW use, while there were no differences regarding pSNWs. Finally, no differences were found related to the employment status of the participants, between the time of active job seekers' proximity (three months) to the participation in a selection process, or beliefs about the candidate's SNW profile being reviewed during a selection process. These results have several theoretical and practical implications that should be noted.

Theoretical Implications

The differences found between pSNWs and npSNWs appeared for the total score as well as each of the facets analyzed: perception of Face Validity, perception of Predictive Validity, and perception of Fairness. These differences are connected to the fact that the content posted on pSNWs, such as LinkedIn, is related to the position applied for, so individuals perceive such networks as more valid than npSNWs, such as Facebook, as tools in the selection process.

Therefore, the results obtained are in line with the idea of different web aims evoking different users' attitudes and behavior (Gerow, Ayyagari, Thatcher, & Roth, 2013; van der Heijden, 2004). Websites that are essentially designed for recreational purposes, such as Facebook, give more information, but this is supposedly less relevant to job applications and professional development than websites mainly designed for professional interactions, such as LinkedIn (Kluemper & Rosen, 2009). Therefore, npSNWs are perceived by applicants as less useful as a valid assessment. This is consistent with examinees showing more positive appraisals for assessment tools in which the information is related to direct job-related performance (e.g., interviews, job samples) compared with those in which the relationship is indirect (e.g., intelligence or personality tests) (Reeve & Schultz, 2004).

On the other hand, it should be noted that the global appraisal of the use of pNSWs correlates significantly and negatively with the three specific facets of npSNWs. The more positive the attitude towards the former, the more negative the appraisal of face validity, predictive validity, and fairness of the latter.

The different reactions among women and men regarding the use of SNWs are also noteworthy, as well as the role of the age group in such reactions. Women showed rather more negative perception than men regarding the use of npSNWs for selection processes but not for pSNWs, though this result should be considered in light of the different sample sizes both groups have. Interestingly, greater differences appeared for the perception of fairness. Such perception is related to the personal judgment about the process itself, while perceptions about face and predictive validity concern the formal external characteristics of the process (Hausknecht et al., 2004). These results suggest that gender plays a key role in reactions to SNWs. Nikolaou (2014) found that men were prone to being more active in LinkedIn than women and perceiving the network as more effective than females. Nevertheless, women spent more time using SNWs and made a more thorough search than males. Such differences in behavior might be based on the different perceptions we observed.

The same applied to the age of the participants: differences appeared regarding the use of npSNWs, but not regarding the use of pSNWs. It should be noted that people in the older age groups were those who gave more positive appraisals to npSNWs. Nonetheless, it is well known that younger people have been immersed in technology for a much longer period of time and they are therefore much more likely to accept the use of SNWs when hiring decisions are made (Davison, Maraist, & Bing, 2011). However, our results did not uphold this. We found no difference regarding pSNWs and the differences found in the npSNWs were the opposite: the younger the individual, the more reluctance he/she showed to the use of npSNWs. This could be related to the fact that older people have

less knowledge and experience regarding the use or specific aims of the different SNWs. It must be considered that age groups included in the study correspond to the first steps of a career development. However, it would be of interest to study additional age groups that represent the progression of a career during the second part of the professional development.

Practical Implications

The current study provides a useful insight for both human resource administrators who work in recruitment and selection and candidates who are applying for jobs. The different reactions to pSNWs and npSNWs ought to lead HR professionals to initiate a critical analysis of the use of the latter in selection processes. Similarly, the applicants' reactions to the use of pSNWs in specific processes could be improved by transparent communication, highlighting what is going to be taken into account regarding their SNW profiles and how the information obtained is going to be evaluated.

In addition, this paper provides a Spanish adaptation of the Chan et al.'s (1998a,b) scale, which is a useful instrument for assessing applicant reactions to selection tools. This could be helpful in applied settings to assess attitudes towards selection processes in which SNWs are used. Undoubtedly, knowing how applicants appraise the use of SNWs may promote specific suggestions for improving applicants' impact on recruitment and selection processes.

Finally, another contention from these results is that it may help SNWs upgrade their web design. In the case of the design of npSNWs, if they incorporated areas clearly oriented towards work and employment and clearly stated express user consent for its use by potential employers, this could help to foster an improved attitude in their use in the selection processes. This would also facilitate the use of searching and filtering algorithms to increase recruitment efficiency.

Limitations of the Study and Future Trends

While this study has offered several valuable insights, it was not without its limitations. Firstly, it is a cross-sectional study in which participants were not applying for a specific job. This might have decontextualized the examinees' reactions to the process as a whole and could have focused only on the selection assessment instrument. Future research should consider real selection processes in which one (but not the only) measure is the assessment of candidate's NSW profile.

Secondly, even though several applicants' characteristics such as their employment status have been considered, some other variables might also modulate applicants' attitudes, such as professional experience, and the amount of information included in their profiles, position, etc. For instance, the position being applied for, e.g. sales vs. technician, may affect the perception of the fairness of the process (Elkins & Phillips, 2000). This could therefore influence the attitudes towards the use of SNWs.

Thirdly, since people recruited for the study were 23 to 44 years old, the role of older ages in attitudes to SNWs could not be analyzed. Likewise, other variables which have not been included in the study, such as academic degree, personality styles, attitudes toward information technologies, etc., should be considered in the future.

Conclusion

The present paper provides a better knowledge of applicants' reactions to the use of SNWs, whether professional or recreational, when they are used for assessing candidates seeking a job. The

results can promote a HR administrator's critical reflection in order to improve their use (Elkins & Phillips, 2000). In this way, this study contributes to bridging the gap between the increasingly extended use of SNWS in recruitment and selection processes and the scientific knowledge about their utility, validity, and acceptance.

Conflict of Interest

The authors of this article declare no conflict of interest.

Appendix.

SNWs Applicant Reactions Scale (adapted from Chan et al., 1998a, 1998b)

1. I can see a clear connection between the information on the [type] Social Networking Webs and what I think is required by the position.
2. The content of the [type] Social Networking Webs is related to the skills required by the position.
3. I do not understand what the information on the [type] Social Networking Web had to do with the job.*
4. I am confident that the information on the [type] Social Networking Web can predict how well people will perform in their job.
5. The employer can tell a lot about the applicant's ability to do the job based on the information in the [type] Social Networking Web.
6. Failing to provide a full profile in the [type] Social Networking Webs indicates that applicant cannot perform well in the job.
7. I feel that using the information in the [type] Social Networking Webs to select applicants for jobs is fair.
8. The use of the Social Networking Web profiles would allow the fair screening of every applicant and would give them same opportunity to compete for jobs.
9. Using the information on the [type] Social Networking Webs would reduce the favoritism that can sometimes be a problem when applicants are selected for jobs.

 * Reversed item
Key: *Totally disagree* 1 2 3 4 5 *Totally agree*

[type]. In SNWp is: professionals as LinkedIn; In SNWnp is: recreacionals such as Facebook.

References

Anderson, N., Salgado, J. F., & Hulsheger, U. R. (2010). Applicant reactions in selection: comprehensive meta-analysis into reaction generalization versus situational specificity. *International Journal of Selection and Assessment*, 18, 291–304. http://dx.doi.org/10.1111/j.1468-2389.2010.00512.x

Bangerter, A., Roulin, N., & Konig, C. J. (2012). Personnel selection as a signaling game. *Journal of Applied Psychology*, 97, 719–738. http://dx.doi.org/10.1037/a0026078

Bauer, T. N., Maertz, C. P., Dolen, M. R., & Campion, M. A. (1998). Longitudinal assessment of applicant reactions to employment testing and test outcome feedback. *Journal of Applied Psychology*, 83, 892–903. http://dx.doi.org/10.1037/0021-9010.83.6.892

Bauer, T. N., Truxillo, D. M., Paronto, M. E., Campion, M. A., & Weekley, J. A. (2004). Applicant reactions to different selection technology: Face-to-face, interactive voice response, and computer-assisted telephone screening interviews. *International Journal of Selection and Assessment*, 12, 135–148. http://dx.doi.org/10.1111/j.0965-075X.2004.00269.x

Bauer, T. N., Truxillo, D. M., Sanchez, R. J., Craig, J., Ferrara, P., & Campion, M. A. (2001). Applicant reactions to selection: Development of the Selection Procedural Justice Scale (SPJS). *Personnel Psychology*, 54, 387–419. http://dx.doi.org/10.1111/j.1744-6570.2001.tb00097.x

Black, S. L., Johnson, A. F., Takach, S. E., & Stone, D. L. (2014). *Factors affecting applicant's reactions to the collection of data in social network websites*. Paper presented at the annual meeting of the Academy of Management. Philadelphia, PA.

Brislin, R. W. (1970). Back-translation for crosscultural research. *Journal of Cross-Cultural Psychology*, 1, 185–216. http://dx.doi.org/10.1177/135910457000100301

Brown, V. R., & Vaughn, E. D. (2011). The writing on the (Facebook) wall: The use of social networking sites in hiring decisions. *Journal of Business and Psychology*, 26, 219–225. http://dx.doi.org/10.1007/s10869-011-9221-x

Chan, D., & Schmitt, N. (2004). An Agenda for Future Research on Applicant Reactions to Selection Procedures: A Construct-Oriented Approach. *International Journal of Selection & Assessment*, 12, 9–23. http://dx.doi.org/10.1111/j.0965-075X.2004.00260.x

Chan, D., Schmitt, N., Jennings, D., Clause, C. S., & Delbridge, K. (1998). Applicant perceptions of test fairness integrating justice and self-serving bias perspectives. *International Journal of Selection and Assessment.*, 6, 232–239. http://dx.doi.org/10.1111/1468-2389.00094

Chan, D., Schmitt, N., Sacco, J. M., & DeShon, R. P. (1998). Understanding pretest and posttest reactions to cognitive ability and personality tests. *Journal of Applied Psychology*, 83, 471–485. http://dx.doi.org/10.1037/0021-9010.83.3.471

Davison, H. K., Maraist, C., & Bing, M. N. (2011). Friend or foe? The promise and pitfalls of using social networking sites for HR decisions. *Journal of Business and Psychology*, 26, 153–159. http://dx.doi.org/10.1007/s10869-011-9215-8

Elkins, T. J., & Phillips, J. S. (2000). Job context, selection decision outcome, and the perceived fairness of selection tests: Biodata as an illustrative case. *Journal of Applied Psychology*, 85, 479–484. http://dx.doi.org/10.1037/0021-9010.85.3.479

Fletcher, C. (1991). Candidates' reactions to assessment centers and their outcomes: A longitudinal study. *Journal of Occupational Psychology*, 64, 117–127. http://dx.doi.org/10.1111/j.2044-8325.1991.tb00547.x

Fogel, J., & Nehmad, E. (2009). Internet social network communities: risk taking, trust, and privacy concerns. *Computers in Human Behavior*, 25, 153–160. http://dx.doi.org/10.1016/j.chb.2008.08.006

Gerow, J. E., Ayyagari, R., Thatcher, J. B., & Roth, P. L. (2013). Can we have fun @ work? The role of intrinsic motivation for utilitarian systems. *European Journal of Information Systems*, 22, 360–380. http://dx.doi.org/10.1057/ejis.2012.25

Gilliland, S. W. (1993). The perceived fairness of selection systems: An organizational justice perspective. *Academy of Management Review*, 18, 694–734. http://dx.doi.org/10.5465/AMR.1993.9402210155

Gilliland, S. W. (1994). Effects of procedural and distributive justice on reactions to a selection system. *Journal of Applied Psychology*, 79, 691–701. http://dx.doi.org/10.1037/0021-9010.79.5.691

Gilliland, S. W., & Chan, D. (2001). Justice in organizations: Theory, methods, and applications. In N. Anderson, D. S. Ones, H. K. Sinangil, & C. Viswesvaran (Eds.), *Handbook of industrial, work and organizational psychology* (pp. 143–165). Thousand Oaks, CA: Sage.

Gustafson, D. A. (2012). *Perceived fairness in the use of Facebook in the selection process* (Unpublished master's thesis). Arlington: University of Texas.

Hausknecht, J. P., Day, D. V., & Thomas, S. C. (2004). Applicant reactions to selection procedures: An updated model and meta-analysis. *Personnel Psychology*, 57, 639–683. http://dx.doi.org/10.1111/j.1744-6570.2004.00003.x

Infoempleo-Adecco (2014). *Redes sociales y mercado de trabajo*. Retrieved from http://www.adecco.es/_data/NotasPrensa/pdf/642.pdf

Internet Live Stats (2016). Retrieved from http://www.internetlivestats.com

Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business horizons*, 53, 59–68. http://dx.doi.org/10.1016/j.bushor.2009.09.003

Kluemper, D. H. (2013). Social network screening: Pitfalls, possibilities, and parallels in employment selection. In T. Bondarouk, & M. R. Olivas-Luján (Eds.), *Social Media in Human Resources Management (Advanced Series in Management)* (Vol. 12 pp. 1–21). Bingley, UK: Emerald Group Publishing Limited. http://dx.doi.org/10.1108/S1877-6361(2013)0000012005

Kluemper, D., & Rosen, P. (2009). Future employment selection methods: evaluating social networking web sites. *Journal of Managerial Psychology*, 24, 567–580. http://dx.doi.org/10.1108/02683940910974134

Maertz, C. P., Bauer, T. N., Mosley, D. C., & Posthuma, R. A. (2004). Do procedural justice perceptions in a selection context predict applicant attraction and intention toward the organization? *Journal of Applied Social Psychology*, 34, 125–145. http://dx.doi.org/10.1111/j.1559-1816.2004.tb02540.x

McLarty, B. D., & Whitman, D. S. (2015). A Dispositional Approach to Applicant Reactions: Examining Core Self-Evaluations, Behavioral Intentions, and Fairness Perceptions. *Journal of Business and Psychology*, http://dx.doi.org/10.1007/s10869-015-9405-x. Advance online publication.

Nikolaou, I. (2014). Social networking web sites in job search and employee recruitment. *International Journal of Selection and Assessment*, 22, 179–189. http://dx.doi.org/10.1111/ijsa.12067

Ployhart, R. E., & Ryan, A. M. (1997). Toward an explanation of applicant reactions: An examination of organizational fairness and attribution frameworks. *Organizational Behavior and Human Decision Processes*, 72, 308–335. http://dx.doi.org/10.1006/obhd.1997.2742

Ployhart, R. E., & Ryan, A. M. (1998). Applicants' reactions to the fairness of selection procedures: The effects of positive rule violation and time of measurement. *Journal of Applied Psychology*, 83, 3–16. http://dx.doi.org/10.1037/0021-9010.83.1.3

Reeve, C. L., & Schultz, L. (2004). Job-Seeker Reactions to Selection Process Information in Job Ads. *International Journal of Selection and Assessment*, 12, 343–355. http://dx.doi.org/10.1111/j.0965-075X.2004.00289.x

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, 269–298. http://dx.doi.org/10.1177/0149206313503018

Rotondo, D. M., Carlson, D. S., & Kincaid, J. F. (2003). Coping with multiple dimensions of work-family conflict. *Personal Review*, 32, 275–296. http://dx.doi.org/10.1108/00483480310467606

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

Ryan, A. M., & Ployhart, R. E. (2000). Applicants' perceptions of selection procedures and decisions: A critical review and agenda for the future. *Journal of Management*, *26*, 565–606.

Ryan, A. M., & Ployhart, R. E. (2014). A century of selection. *Annual review of psychology*, *65*, 693–717. http://dx.doi.org/10.1146/annurev-psych-010213-115134

Sanchez, R. J., Roberts, K., Freeman, M., & Clayton, A. M. (2012). *Do they care? Applicant reactions to online social networking presence checks*. Paper presented at the annual meeting of the Academy of Management. Boston.

Schmitt, N., & Chan, D. (1999). The status of research on applicant reactions to selection tests and its implications for managers. *International Journal of Management Reviews*, *1*, 45–62. http://dx.doi.org/10.1111/1468-2370.00004

Siebert, S., Downes, P. E., & Christopher, J. (2012). *Applicant reactions to online background checks: welcome to a brave new world*. Paper presented at the annual meeting of the Academy of Management. Boston.

Society for Human Resource Management. (2011). *The Use of Social Networking Websites and Online Search Engines in Screening Job Candidates*. Retrieved from http://www.shrm.org/research/surveyfindings/articles/pages/theuseofsocialnetworkingwebsitesandonlinesearchenginesinscreeningjobcandidates.aspx.

Stopfer, J. M., & Gosling, S. D. (2013). Online social networks in the work context. In D. Derks, & A. Bakker (Eds.), *The psychology of digital media at work* (pp. 39–59). London: Psychology Press.

Van der Heijden, H. (2004). User acceptance of hedonic information systems. *MIS Quarterly*, *28*, 695–704.

Van Hoye, G., van Hooft, E. A., & Lievens, F. (2009). Networking as a job search behaviour: A social network perspective. *Journal of Occupational and Organizational Psychology*, *82*, 661–682. http://dx.doi.org/10.1348/096317908X360675

Wilton, N. (2013). *An introduction to human resource management*. London: Sage.