Differences between individualist and collectivist cultures in emotional Facebook usage: relationship with empathy, self-esteem, and narcissism

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Abstract

Background: Adolescents are one of the groups who most use social networks in an emotional way, to express their own emotions and to empathize with the emotions of others. Although personality factors; namely, empathy, self-esteem, and narcissism appear to play an important role in this usage, the contribution of cultural variables has yet to be examined. The aim of this study is to examine cross-cultural variations in Facebook usage and the relationship of those variations with empathy, self-esteem and narcissistic personality factors. Method: Using a sample of 479 Spanish adolescents (220 females) and 405 Thai adolescents (224 females), the Use of Facebook Questionnaire was applied, and empathy, self-esteem and narcissism personality traits were measured. Results: Findings suggested variations between Thai and Spanish samples at the intra- and inter-cultural level. The Thai sample had higher scores in Affective Empathy but lower scores in Cognitive Empathy, used Facebook more, and engaged in more emotional and empathic expression when using Facebook. Also, results also show interesting differences related with the interaction between gender and country. Conclusions: We discuss the results in relation to Hofstede’s criteria about the differences between Eastern and Western societies. We highlight the need for longitudinal studies about this topic.

Keywords: cross-cultural differences, Facebook, empathy, self-esteem, narcissism.

Resumen

Diferencias entre culturas individualistas y colectivas en el uso emocional de Facebook: relación con la empatía, la autoestima y el narcisismo. Antecedentes: los adolescentes son el grupo de población que más usan las redes sociales de forma emocional para expresar sus emociones y para empatizar con las emociones de otros. Mientras que factores de personalidad como empatía, autoestima y narcisismo parecen desempeñar un papel importante en este uso, la contribución de las variables culturales no ha sido examinada. El objetivo de este estudio es examinar variaciones interculturales en el uso de Facebook, y su relación con la empatía, autoestima y narcisismo. Método: usando una muestra de 479 adolescentes españoles (220 mujeres) y 405 adolescentes tailandeses (224 mujeres), se aplicó el Cuestionario de Uso de Facebook y se midieron los rasgos de empatía, autoestima y narcisismo. Resultados: los resultados sugieren variaciones entre las muestras españolas y tailandesas a nivel intra e intercultural. La muestra tailandesa puntuó más alto en Empatía Afectiva, pero más bajo en Empatía Cognitiva, y usó más Facebook expresando emociones y empatía. También se obtuvieron resultados relacionados con la interacción entre sexo y país. Conclusiones: se discuten estos resultados en relación con los criterios de Hofstede acerca de las diferencias entre las sociedades occidentales y orientales. Se destaca la necesidad de estudios longitudinales.

Palabras clave: diferencias interculturales, Facebook, empatía, autoestima, narcisismo.
& Allik, 2005), the most frequently used criterion that helps distinguish Eastern and Western cultures is individualism. This individualism versus collectivism classification generally infers orientation toward individual rights versus collective duties, with empirical evidence that characterize Western countries with individualism and Eastern countries with collectivism. Recent studies have shown that cultural dichotomy is potentially associated with social network usage, cross-cultural variations in network density, usage frequency, or the position that the individual occupies within the social interaction. More specifically, when compared with users from collectivist countries, individuals in individualist cultures participate more in self-centered social networks (Na, Kosinski, & Stillwell, 2015), make more positive self-presentations (Lee-Won et al., 2014), and more readily accept friend requests from strangers (Rui & Stefanone, 2013). Anyway, the number of studies in this domain remains very limited. It would be interesting to know if the emergence of a new tool such as Facebook will contribute to reduce cultural differences between different countries, or if, on the contrary, such differences will be maintained when adapting the use of social networks to the characteristics of each culture (Na et al., 2015).

It is also possible to study the relationship between individual differences and the use of the social network Facebook. Maybe this use is mediated by personalities of the users, and maybe the development of adolescents’ personalities could be mediated by the use of Facebook (Blachnio, Przepiorka, & Rudyńska, 2016; Carrier, Spradlin, Brune, & Rosen, 2015). A literature review led to the selection of three personality factors empirically studied in social network research and very relevant in interpersonal relations and self-presentation, especially during adolescence: empathy, self-esteem and narcissism.

Empathy is a personality variable that indicates emotional and social functioning and entails affective empathy: the affective contagion to the emotions of other people, and cognitive empathy: the understanding of the reasons for the actions of others (Jolliffe & Farrington, 2006). There is evidence that empathy has declined among young people, -the population who uses social networks more frequently-, over the last decades (Konrath, 2013); however, it is unclear whether such a decline is associated with the use of social networks (Carrier et al., 2015). Likewise, research on cross-cultural differences about empathy in young people has yielded ambiguous results (Cassels, Chan, Chung, & Birch, 2010).

Self-esteem is a personality variable that refers to the individual’s general sense of worth. Low levels of self-esteem have been shown to lead to the construction of false selves in Facebook and an increase in Facebook usage as well as its significance (Blachnio et al., 2016). One of the most recognized cross-cultural studies on self-esteem was conducted by Schmitt and Allik (2005), where the Rosenberg Self-esteem Scale was administered to individuals from fifty-three countries. Whereas the overall self-esteem did not differ among individuals from individualist and collectivist countries, different roles of competence perception emerged. Although participants from collectivist countries reported lower perception of their competences, they reported higher self-likings than participants from individualist countries.

Narcissism is a personality trait characterized by feelings of entitlement, superiority, exhibitionism and an intense need to be admired by others. Consequently, narcissistic individuals achieve gratification from attention and appreciation of their attributes. Attempts have been made to identify factors contributing to narcissism. Among these, Carpenter (2012) reported a strong positive association between the “grandiose exhibitionism” component of narcissism and certain Facebook usage such as excessive self-presentation, photo posting, and numbers of “friends”. Additionally, the “entitlement” component of narcissism was positively associated with antisocial and aggressive usage of Facebook. Brailovskaia & Bierhoff (2016) reported no cross-cultural differences between Russian and German users in the relationship between Facebook usage and users’ narcissistic scores.

Despite the aforementioned initial attempts to investigate cross-cultural variation in Facebook usage, such investigations remained very limited. The current study attempts to compare Facebook usage among adolescents from a collectivist country – Thailand- and an individualist one –Spain-. Their levels of empathy, self-esteem, and narcissism, will be additionally examined in terms of their relationship with Facebook usage.

Method

Participants

The Spanish participants were sampled from school networks in North West Spain (Asturias). Four-hundred and seventy-nine pupils in a total of eight schools participated in the study (M = 14.62, SD = 0.75). Two-hundred and fifty-nine of them (54.1%) were boys and 220 (45.9%) were girls. The Thai participants were sampled from junior high-schools in the Bangkok metropolitan area. Four-hundred and five pupils engaged in the current study in a total of three schools (M = 14.76, SD = 0.52). One-hundred and eighty-one of them (44.7%) were boys and 224 (55.3%) were girls. The two samples combined for a total of 884 pupils (M = 14.68, SD = 0.65). Four hundred and forty (49.8%) were male and 444 (50.2%) were female.

Instruments

Empathy was assessed using the Basic Empathy Scale (BES; Jolliffe & Farrington, 2006), a 20-item scale that captures two dimensions of empathy: Affective Empathy or the sharing of others’ emotion on an affective level (α = 0.92), and Cognitive Empathy or the sharing of others’ emotion on a cognitive or rational level (α = 0.96). The Spanish adaptation (Villardangos, Errasti, Amigo, Jolliffe, & García-Cueto, 2016) of the BES was used in Spain. The BES was translated into Thai following the ITC guidelines (Muñiz, Elsom, & Hambleton, 2013).

Self-esteem was assessed using the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1989), an established 10-item scale that assesses one general factor of self-esteem (α = 0.86). This scale has a Spanish adaptation (Martín-Albo, Núñez, Navarro, & Grijalvo, 2007). The RSES was translated into Thai following the ITC guidelines (Muñiz et al., 2013).

Narcissism was assessed using the Narcissistic Personality Inventory (NPI; Raskin & Hall, 1981), a well-recognized 40-item questionnaire with a trifactorial structure: (1) a self-perceived leadership ability, social potency, and to a lesser extent, dominance (Leadership/Authority; α = 0.78); (2) a combination of self-absorption vanity, superiority, and exhibitionism tendencies (Grandiose Exhibitionism; α = 0.72); and (3) entitled beliefs and behaviors related to interpersonal contexts, such as a sense of deserving respect and a willingness to manipulate and take advantage of others (Entitlement/Grandiosity; α = 0.74). The NPI was translated into Thai following the ITC guidelines (Muñiz et al., 2013).
advantages of others (Entitlement/Exploitativeness; $\alpha = 0.46$; only four items). The NPI was translated into Spanish and into Thai following the ITC guidelines (Muñiz et al., 2013).

A 12-item Use of Facebook Questionnaire (UFQ) was designed (Errasti, Amigo, & Villadangos, 2017) based on Carpenter’s study (2012) about the relationship between Narcissism and Facebook usage. Factor analyses suggested that the items could be divided into three factors: (1) the frequency with which adolescents post information or updates their Facebook page (FB-Frequency; $\alpha = 0.66$); (2) the expression of empathy for others’ emotions on Facebook or the frequency with which the adolescents use Facebook to offer consolation or appreciation to others (FB-Empathy; $\alpha = 0.84$) and (3) the expression of personal emotions on Facebook or the frequency with which the adolescents connect into Facebook in order to express their emotional states (FB-Emotions; $\alpha = 0.80$) (Errasti, Amigo, & Villadangos, 2017).

Procedure

Study participation was voluntary. In Spain, signed consent was obtained from both the school council and each pupils’ parents for their children to participate in the study. Pupils who did not return parental informed consent were not included in the study and were asked to spend their time at the school library, while the participants responded to the questionnaires in their classroom. In Thailand, data collection proceeded after the ethical review and participants responded to the questionnaires in their classroom. In both countries, parental consent was obtained from both the school council and each pupils’ parents. Procedure of the study was voluntary. In Spain, signed consent was obtained from both the school council and each pupils’ parents for their children to participate in the study. Pupils who did not return parental informed consent were not included in the study and were asked to spend their time at the school library, while the participants responded to the questionnaires in their classroom. In Thailand, data collection proceeded after the ethical review and participants responded to the questionnaires in their classroom. In both countries, parental consent was obtained from both the school council and each pupils’ parents.

Results of the ANOVA tests for the Gender x Sample interaction. NMT, NMS, NFT and NFS are the number of Thai males, Spanish males, Thai females and Spanish females included in the analysis. MMT, MMS, MFT and MFS are the mean value of Thai male, Spanish male, Thai female and Spanish female samples respectively, and the value in parenthesis is the standard error of the mean.

### Table 2

Results of the ANOVA tests for the Gender factor. Nmales is the number of males included in the analysis, and Nfemales, the number of females. Mmales and Mfemales are the mean value of males and females respectively, and the value in parenthesis is the standard error of the mean. \( \eta^2_p \) is the estimation of the effect size.

<table>
<thead>
<tr>
<th>Scale</th>
<th>Nmales</th>
<th>Nfemales</th>
<th>Mmales</th>
<th>Mfemales</th>
<th>F</th>
<th>P</th>
<th>( \eta^2_p )</th>
</tr>
</thead>
<tbody>
<tr>
<td>FB-Frequency</td>
<td>336</td>
<td>346</td>
<td>2.72 (0.07)</td>
<td>2.92 (0.07)</td>
<td>F(1, 678) = 4.23</td>
<td>.040</td>
<td>.006</td>
</tr>
<tr>
<td>FB-Empathy</td>
<td>336</td>
<td>345</td>
<td>7.59 (0.16)</td>
<td>7.47 (0.16)</td>
<td>F(1, 677) = 0.25</td>
<td>.619</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>FB-Emotions</td>
<td>334</td>
<td>345</td>
<td>5.96 (0.15)</td>
<td>6.13 (0.15)</td>
<td>F(1, 675) = 0.69</td>
<td>.407</td>
<td>.001</td>
</tr>
<tr>
<td>BES-Affective</td>
<td>427</td>
<td>437</td>
<td>33.50 (0.32)</td>
<td>38.34 (0.30)</td>
<td>F(1, 855) = 122.13</td>
<td>&lt; 0.001</td>
<td>.125</td>
</tr>
<tr>
<td>BES-Cognitive</td>
<td>427</td>
<td>437</td>
<td>32.56 (0.23)</td>
<td>34.58 (0.22)</td>
<td>F(1, 850) = 40.23</td>
<td>&lt; 0.001</td>
<td>.045</td>
</tr>
<tr>
<td>RSES</td>
<td>426</td>
<td>435</td>
<td>29.25 (0.25)</td>
<td>27.72 (0.25)</td>
<td>F(1, 857) = 18.39</td>
<td>&lt; 0.001</td>
<td>.021</td>
</tr>
<tr>
<td>NPI-Leadership</td>
<td>424</td>
<td>435</td>
<td>15.04 (0.12)</td>
<td>14.49 (0.11)</td>
<td>F(1, 855) = 11.63</td>
<td>&lt; 0.001</td>
<td>.013</td>
</tr>
<tr>
<td>NPI-Exhibition</td>
<td>422</td>
<td>438</td>
<td>12.58 (0.10)</td>
<td>12.61 (0.10)</td>
<td>F(1, 856) = 0.05</td>
<td>.832</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>NPI-Entitlement</td>
<td>427</td>
<td>438</td>
<td>5.35 (0.08)</td>
<td>5.27 (0.05)</td>
<td>F(1, 861) = 0.99</td>
<td>.321</td>
<td>.001</td>
</tr>
</tbody>
</table>
It is worth noting that the Thai sample not only engaged more on Facebook usage but, when compared with their Spanish counterpart, also engaged more in emotional expression through this medium. The Spanish sample used Facebook less in transmitting empathic messages and emotional expression, in consonance with their scores on Affective Empathy, that were relatively lower. These results do not agree with Carrier et al. (2015) that suggested that in individualist societies, empathic communication occurs increasingly through the virtual interaction more than through the face-to-face one. According to these authors, emotional expressiveness is more important for maintaining good interpersonal relations in individualist societies but emotion differentiation takes precedence in collectivist cultures. These suggestions were supported in a cross-cultural study of Euro-American, Asian, Korean, and Chinese participants (Kang, Shaver, Sue, Min, & Jing, 2016). Members of individualist cultures engaged more in on-line self-disclosure (Lee-Won et al., 2014), and Facebook empathy expression could be considered as a part of this. In the current study, this effect was not observed and there were no differences between the empathy shown on-line and the empathy shown in real life, measured by our questionnaires. This is true among male and female participants: Thai males exhibited a much greater empathic use of Facebook than their Spanish counterparts; Thai females exhibited only a little bit more of empathic use of Facebook than their Spanish counterparts.

The lower levels of self-esteem and leadership found in the Thai sample are consistent with tendencies previously reported by Hofstede (1980). Schmitt and Allik (2005) reported significantly lower scores in the RSES in Japanese samples than in the North American ones. As reported by Cho and Park (2013), members of an individualist culture are likely to engage in self-expression behaviors characterized by a high level of self-esteem. Also, the Spanish male participants scored significantly higher in leadership than their Thai counterparts. With Western countries being characterized by less power distance between citizenship and authority figures, the Spanish sample are possibly socialized to become more independent of their authority and to be higher in terms of their leadership than their Thai counterpart. This possibility could apply across genders, because higher leadership scores were observed in Spain than in Thailand regardless of the participants’ genders.

Gender differences are modulated differently in various cultures. Interesting results were obtained regarding the interaction between gender and country. Within-culture variations were observed.

### Table 3

Results of the ANOVA tests for the Sample factor. $N_{THAI}$ is the size of the Thai sample included in the analysis, and $N_{SPANISH}$ the size of the Spanish sample. $M_{THAI}$ and $M_{SPANISH}$ are the mean value of Thai and Spanish samples respectively, and the value in parenthesis is the standard error of the mean. $\eta^2_p$ is the estimation of the effect size.

<table>
<thead>
<tr>
<th>Scale</th>
<th>$N_{THAI}$</th>
<th>$N_{SPANISH}$</th>
<th>$M_{THAI}$</th>
<th>$M_{SPANISH}$</th>
<th>$F$</th>
<th>$P$</th>
<th>$\eta^2_p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>FB-Frequency</td>
<td>397</td>
<td>285</td>
<td>3.09 (0.06)</td>
<td>2.55 (0.07)</td>
<td>F(1, 678) = 31.65</td>
<td>&lt; 0.001</td>
<td>0.45</td>
</tr>
<tr>
<td>FB-Empathy</td>
<td>397</td>
<td>284</td>
<td>7.80 (0.15)</td>
<td>7.26 (0.17)</td>
<td>F(1, 677) = 5.80</td>
<td>.016</td>
<td>0.09</td>
</tr>
<tr>
<td>FB-Emotions</td>
<td>397</td>
<td>282</td>
<td>6.99 (0.14)</td>
<td>5.10 (0.16)</td>
<td>F(1, 675) = 79.79</td>
<td>&lt; 0.001</td>
<td>1.06</td>
</tr>
<tr>
<td>BES-Affective</td>
<td>390</td>
<td>469</td>
<td>36.35 (0.32)</td>
<td>35.49 (0.29)</td>
<td>F(1, 855) = 2.84</td>
<td>.050</td>
<td>0.05</td>
</tr>
<tr>
<td>BES-Cognitive</td>
<td>381</td>
<td>473</td>
<td>31.95 (0.24)</td>
<td>35.19 (0.21)</td>
<td>F(1, 850) = 103.50</td>
<td>&lt; 0.001</td>
<td>0.109</td>
</tr>
<tr>
<td>RSES</td>
<td>396</td>
<td>465</td>
<td>27.32 (0.26)</td>
<td>29.65 (0.24)</td>
<td>F(1, 857) = 45.26</td>
<td>&lt; 0.001</td>
<td>0.48</td>
</tr>
<tr>
<td>NPI-Leadership</td>
<td>402</td>
<td>457</td>
<td>14.20 (0.12)</td>
<td>15.32 (0.11)</td>
<td>F(1, 855) = 48.63</td>
<td>&lt; 0.001</td>
<td>0.054</td>
</tr>
<tr>
<td>NPI-Exhibition</td>
<td>399</td>
<td>461</td>
<td>12.71 (0.11)</td>
<td>12.48 (0.10)</td>
<td>F(1, 856) = 2.57</td>
<td>.109</td>
<td>0.03</td>
</tr>
<tr>
<td>NPI-Entitlement</td>
<td>402</td>
<td>463</td>
<td>5.41 (0.05)</td>
<td>5.21 (0.05)</td>
<td>F(1, 861) = 7.90</td>
<td>.005</td>
<td>0.009</td>
</tr>
</tbody>
</table>
Thai male participants engaged more in empathic expression via Facebook when compared with their female counterparts. The opposite, however, was found applied to the Spanish sample, with less engagement in the male ones. Similarly, Thai male participants obtained lower scores in exhibitionism than their female counterparts. Again, the opposite was observed in the Spanish sample, obtaining the Spanish males higher scores in exhibitionism than the Spanish females, although the differences did not reach statistical significance after the Bonferroni correction (p = 0.21).

It is important to note that the effect sizes found in this research have been small in all cases, indicating that we are dealing with a phenomenon in which many more variables are involved than those that have been studied. Anyway, although the effect size of the differences found were small, these results suggested that within-culture variations should not be overlooked in cross-cultural investigation. Similarly, gender studies should take into consideration these variations in their conclusions.

Future investigations should take into consideration the role of virtual social network, not only as a medium for social interaction, but also as a contributor for personality development. The cross-sectional nature of this study prevents the identification of the causal influence of social network on personality development. Such influence could be clarified through the use of a longitudinal research design that examines how personality changes are manifested as a consequence of social network usage and how this manifestation occurs across cultures.

From a methodological point of view, it will be necessary to ensure that the constructs measured are invariant with respect to the cultures (Byrne & van de Vijver, 2017; Gómez-Benito, Balluerka, González, Widaman, & Padilla, 2017).

References


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