

1 The Six Dimensions of Personality (HEXACO) and their Associations with Network  
2 Layer Size and Emotional Closeness to Network Members

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## Abstract

29 Previous work has examined how specific personality dimensions are associated with  
30 social network characteristics. However, it is unclear how the full range of personality  
31 traits relates to the quantity and quality of relationships at different network layers.  
32 This study ( $N = 525$ ) investigates how the six HEXACO personality dimensions relate  
33 to the size of support and sympathy groups, and to the level of emotional closeness to  
34 network members. Extraversion was positively related to support group size, but did  
35 not significantly relate to sympathy group size or emotional closeness. Openness to  
36 Experience and Emotionality were positively related to support group size, but not to  
37 the size of the sympathy group. Honesty-Humility, but not Agreeableness, was  
38 positively related to emotional closeness to members of the sympathy group. Findings  
39 suggest that personality effects vary across network layers and highlight the  
40 importance of considering both emotional closeness and network size.

41

42 *Keywords:* individual differences, HEXACO, social networks, emotional closeness

## 43 **1. Introduction**

44 Personality is important for our understanding of individual patterns of  
45 cognition, motivation, emotion, and behavior—what has been described as “*a kind of*  
46 *thematic recurrence within the events of a life*” (Nettle, 2007, p. 12). Here, we focus  
47 on the effects of personality on characteristics of individuals’ innermost network  
48 layers, that is, on the number and emotional intimacy of close social relationships.

49 Individuals’ social networks are hierarchically structured in successive layers  
50 of increasing size and decreasing emotional intimacy (Dunbar, 1998; Hill & Dunbar,  
51 2003; Sutcliffe et al., 2012). Recent work has examined the effects of personality on  
52 different network layers’ size and intimacy, but has been limited to specific  
53 dimensions, such as Extraversion and Neuroticism (Pollet et al., 2011; Roberts et al.,  
54 2008). Other studies, which examined a more exhaustive set of personality  
55 dimensions, did not differentiate between network layers, such as support and  
56 sympathy groups (Asendorpf & Wilpers, 1998; Selfhout et al., 2010). In this study,  
57 we attempt to address these limitations by investigating how the six HEXACO  
58 personality dimensions (Ashton & Lee, 2007; Lee & Ashton, 2004) relate both to the  
59 size and relationship intensity of individuals’ innermost network layers.

### 60 *1.1. Social network characteristics*

61 It is widely recognized that not all social relationships are of equal strength or  
62 emotional intensity (Bernard et al., 1990; Granovetter, 1973; Milardo, 1992; Wellman  
63 & Wortley, 1990). Focusing on emotionally close ties, many studies have identified  
64 two distinct groupings: a small number of emotionally close ties offering intense  
65 emotional support and a larger number of less emotionally close, but still significant,  
66 ties that provide more general support (Bernard et al. 1990; Binder et al., 2012; Boase  
67 et al., 2006; Milardo, 1992; Wellman & Wortley, 1990).

68 Consistently, research suggests that social networks are organized in a series  
69 of hierarchically inclusive layers (Hill & Dunbar, 2003; Sutcliffe et al., 2012; Zhou et  
70 al., 2005). The innermost layers, corresponding to the two groupings identified above,  
71 have been termed ‘support groups’ and ‘sympathy groups’. Support groups consist of  
72 individuals from whom one would seek support in times of severe emotional or  
73 financial distress: they have an average size of 5 members (Binder et al., 2012;  
74 Dunbar & Spoor, 1995). Sympathy groups consist of individuals whose sudden death  
75 would be greatly upsetting (Buys & Larson, 1979): they have an average size of 12-15  
76 members, including support group members (Binder et al., 2012; Dunbar & Spoor,  
77 1995; Stiller & Dunbar, 2007).

78 Previous work has noted the importance of examining both the quantity and  
79 quality of relationships within different network layers (Pollet et al., 2011), as there is  
80 evidence of a trade-off between relationship quantity and quality (Roberts et al., 2009;  
81 Binder et al., 2011). As the size of each network layer increases, relationship intensity  
82 tends to decrease (Dunbar, 1998; Hill & Dunbar, 2003). Arguably, this is due to  
83 constraints—related to time and cognitive effort—on the number of relationships one  
84 can maintain at a certain level of emotional intensity (Roberts & Dunbar, 2011a;  
85 Stiller & Dunbar, 2007; Sutcliffe et al., 2012; Zhou et al., 2005).

86 While upper bounds seem to exist in different network layers’ size, previous  
87 work has also documented substantial inter-individual variation in both their size and  
88 composition. Such variation can be partly explained by demographic characteristics  
89 such as sex, socioeconomic status, age, and relationship status (McPherson et al.,  
90 2006; Roberts et al., 2009), but another important factor is personality (Nettle, 2007).

91 *1.2. Personality and social networks*

92           Research has examined how the Big Five or Five-Factor model personality  
93 traits (McCrae & Costa, 1999) relate to network characteristics. Among adolescents  
94 and young adults, Extraversion relates to larger networks and faster network growth,  
95 whereas Agreeableness is associated with higher peer acceptance and less conflict  
96 (Asendorpf & Wilpers, 1998; Jensen-Campbell et al., 2002; Selfhout et al., 2010).  
97 Although some studies have found no relation between Neuroticism and network size  
98 (Asendorpf & Wilpers, 1998; Roberts et al., 2008), higher Neuroticism is linked to  
99 less perceived social support and more loneliness (Russell et al., 1997; Stokes, 1985).  
100 Finally, Openness to Experience is linked to a larger number of new network contacts  
101 (Zhu et al., 2013; cf. Jensen-Campbell et al., 2002).

102           Research explicitly differentiating the hierarchical structure within social  
103 networks has focused on Extraversion. However, evidence on its relation with  
104 network characteristics is mixed. Specifically, Roberts and colleagues (2008) showed  
105 that Extraversion positively correlates with support group, but not sympathy group,  
106 size. However, this relation was no longer significant after controlling for participant  
107 age. Another study by Pollet and colleagues (2011) examined the relation of  
108 Extraversion with both network quantity and quality: extraverts reported having larger  
109 network layers (support group, sympathy group, outer layer), but did not feel  
110 emotionally closer to members of any layer.

### 111 *1.3. HEXACO personality and network characteristics*

112           Recent theoretical and empirical work in personality psychology has supported  
113 a six-dimensional framework of personality structure—the HEXACO—as a viable  
114 alternative to the Big Five and Five-Factor models. Lexical studies of personality  
115 structure in diverse languages consistently demonstrate the emergence of six (rather  
116 than five) personality factors (Ashton & Lee, 2007): Honesty-Humility (H),

117 Emotionality (E), Extraversion (X), Agreeableness (A), Conscientiousness (C), and  
118 Openness to Experience (O).

119         An important difference between the HEXACO model and five-factor models  
120 is the addition of Honesty-Humility, which is defined by honesty, fairness, sincerity,  
121 modesty, and lack of greed. Further, in the HEXACO framework, the Emotionality  
122 and Agreeableness factors result from a re-rotation of the Big Five factors of  
123 Emotional Stability and Agreeableness. As a result, HEXACO Emotionality excludes  
124 the anger facet that defines low Emotional Stability but includes the sentimentality  
125 facet that defines Agreeableness. Conversely, HEXACO Agreeableness excludes  
126 sentimentality and includes lack of anger<sup>1</sup>.

127         For our research, the use of the HEXACO has two important advantages. First,  
128 it allows us to examine the relations of both Agreeableness—i.e., the tendency to be  
129 flexible, forgiving, and tolerant—and Honesty-Humility—i.e., the tendency to  
130 approach others with sincerity and fairness—with emotional closeness toward support  
131 and sympathy group members. While we start from the explorative hypothesis that  
132 both Honesty-Humility and Agreeableness positively relate to emotional closeness,  
133 we also consider the possibility that one characteristic is more important than the  
134 other for building and maintaining close social relationships. Second, using the  
135 HEXACO could clarify if Emotionality—including sentimentality, but excluding  
136 anger content—relates to network layer size (Asendorpf & Wilpers, 1998; Roberts et  
137 al., 2008) and, in particular, whether it is indeed associated with less social support  
138 (Russell et al., 1997; Stokes, 1985).

139         The HEXACO Extraversion, Conscientiousness, and Openness to Experience  
140 dimensions are largely equivalent to the corresponding traits in the Big Five.  
141 However, HEXACO Openness excludes intellect content—i.e., intelligence and

142 mental ability—that is part of some Big Five measures (e.g., Goldberg’s IPIP scale,  
143 1999).

144         Based on previous examinations of the relation between Extraversion and  
145 network characteristics (Asendorpf & Wilpers, 1998; Pollet et al., 2011), we expect  
146 Extraversion to positively relate to the size of both support and sympathy groups, but  
147 not to emotional closeness. Given previous inconsistencies regarding the relation  
148 between Openness and network size (Jensen-Campbell et al., 2002; Selfhout et al.,  
149 2010), and the lack of evidence for a relation between Conscientiousness and network  
150 characteristics, we do not make specific predictions for these dimensions.

## 151 **2. Methods**

### 152 *2.1. Participants*

153         525 participants (63.4% women,  $M_{age} = 27$ ,  $SD_{age} = 10.09$ , range 18 to 83  
154 years) completed an online survey in English or Dutch. Respondents were recruited  
155 via the personal networks of more than 20 international and Dutch students. The  
156 majority of respondents had a university degree (68.6%). Among participants, 29.3%  
157 reported Dutch as their native language, 20.4% reported English, and 50.3% another  
158 language. Finally, 52.8% of participants reported having a partner (*married* or *in a*  
159 *relationship*; 47.2% were *single*, *divorced*, or *widowed*; see also Supplementary  
160 Materials 1-2).

### 161 *2.2. Procedure and measures*

162         Participants were first asked to list all people with whom losing contact  
163 forever would be upsetting (“*We would like you to think of the people who are most*  
164 *important to you, and to imagine not being able to speak or to see these people ever*  
165 *again*”). Next, they indicated which of these people they would turn to “*in times of*  
166 *severe emotional or financial distress*”. We defined the support group as individuals



167 to whom participants would turn in times of severe distress, and the sympathy group  
168 as individuals with whom losing contact forever would be upsetting. These measures  
169 are commonly used to elicit individuals' inner network layers (e.g., Binder et al.,  
170 2012; Buys & Larson, 1979). Participants then reported how emotionally close they  
171 felt to each network member on a 0 to 100 scale. Emotional closeness is considered  
172 the most reliable indicator of tie strength (Marsden & Campbell, 1984) and is related  
173 to the frequency of both mobile phone and face-to-face contact (Roberts & Dunbar,  
174 2011b; Saramäki et al., 2014).

175 Subsequently, participants completed the 60-item version of the HEXACO  
176 personality inventory (Ashton & Lee, 2009), using 5-point Likert scales (1 = *strongly*  
177 *disagree*, 5 = *strongly agree*). The HEXACO-60 consists of items representing a  
178 broad range of content from all facets of the six HEXACO dimensions (Ashton &  
179 Lee, 2009). Scales for all HEXACO dimensions showed adequate reliability:  
180 Honesty-Humility,  $a = .70$ ; Emotionality,  $a = .76$ ; Extraversion,  $a = .80$ ;  
181 Agreeableness,  $a = .73$ ; Conscientiousness,  $a = .77$ ; Openness to Experience,  $a = .76$ .

### 182 2.3. Analytical Techniques

183 Here, our interest was in examining support and sympathy group properties.  
184 Following previous research (Roberts et al., 2008; Pollet et al., 2011), our sympathy  
185 group measure excluded support group members to avoid including the same  
186 individuals in two sets of analyses. Similarly, we calculated average emotional  
187 closeness to individuals belonging only to the support group, and individuals  
188 belonging only to the sympathy group, separately.

189 We report results from OLS regressions for support and sympathy group size,  
190 and for emotional closeness to support and sympathy group. For all regressions, we  
191 followed a hierarchical procedure. We first included all six HEXACO dimensions as

192 predictors in our model. We then kept only significant personality predictors and  
193 added control variables as follows: sex (0 = *male*, 1 = *female*), age, university degree  
194 (0 = *no*, 1 = *yes*), native language (two dummy coded variables; 0 = *Dutch* and  
195 *English*, 1 = *other*; 0 = *Dutch* and *other*, 1 = *English*), and relationship status (0 = *no*  
196 *committed partner*, 1 = *with committed partner*). For analyses on emotional closeness  
197 variables, we controlled for the corresponding layer size variables—given previous  
198 evidence of a trade-off between layer size and emotional closeness (Roberts et al.,  
199 2009). Finally, to test for the robustness of our results, we used a bootstrap procedure  
200 (Bias-Corrected and Accelerated (BcA); 1,000 samples). We report results based on  
201 parameter estimates and 95% confidence intervals from bootstrapped analyses.

### 202 **3. Results**

#### 203 *3.1. Descriptives and bivariate correlations*

204 Descriptive statistics for the HEXACO dimensions, network layer size, and  
205 emotional closeness can be found in Supplementary Materials 3. On average, the  
206 support group consisted of 5 individuals ( $SD = 3$ ) and the sympathy group, including  
207 support group members, consisted of 11 individuals ( $SD = 6$ ). The mean size of both  
208 layers is consistent with prior research (Binder et al., 2012; Dunbar & Spoor, 1995;  
209 Stiller & Dunbar, 2007). Results from bivariate Pearson's correlations, after  
210 performing BcA bootstrapping with 1,000 samples, between demographics,  
211 HEXACO dimensions, and all network layer size and emotional closeness variables  
212 are presented in Supplementary Materials 4.

#### 213 *3.2. Personality and network layer size*

214 Table 1 shows results from bootstrapped hierarchical regressions for network  
215 layers' size. Consistent with predictions, higher Extraversion scores were associated  
216 with larger support group size. Openness was also positively and significantly related

217 to support group size. In contrast to the claim that Emotionality relates negatively to  
218 social support (Russell et al., 1997; Stokes, 1985), there was a marginally significant,  
219 positive relation between Emotionality and support group size. This model explained  
220 4% of variance in support group size (adjusted  $R^2 = .04$ ,  $F(3, 513) = 7.60$ ,  $p < .001$ ).

221 Contrary to predictions and previous evidence indicating a positive relation  
222 between Extraversion and sympathy group size (Pollet et al., 2011; cf. Roberts et al.,  
223 2008), none of the HEXACO dimensions significantly related to sympathy group size.  
224 Of the control variables, only native language was significantly associated with  
225 sympathy group size (adjusted  $R^2 = .03$ ,  $F(2, 514) = 10.19$ ,  $p < .001$ ). Participants who  
226 reported Dutch or English as their language indicated having larger sympathy groups,  
227 compared to participants who reported another language.

### 228 3.3. *Personality and emotional closeness*

229 Table 2 shows results from bootstrapped hierarchical regressions for emotional  
230 closeness variables. Emotionality positively and significantly related to emotional  
231 closeness to support group members. However, this effect was no longer significant  
232 after controlling for participant sex: women felt emotionally closer to support group  
233 members, compared to men. Further, native language had a significant relation with  
234 emotional closeness to support group. Participants who indicated Dutch or English as  
235 their native language reported more closeness, compared to participants who indicated  
236 another language. Consistent with previous work (e.g., Roberts et al., 2009), there was  
237 a negative relation between support group size and emotional closeness to this layer's  
238 members, such that participants with larger support groups reported less closeness.  
239 This model accounted for 7% of variance in emotional closeness to support group  
240 (adjusted  $R^2 = .07$ ,  $F(5, 511) = 8.30$ ,  $p < .001$ ).

241 In line with our prediction that Honesty-Humility is associated with higher  
242 emotional closeness, we found that this personality characteristic significantly and  
243 positively related to emotional closeness to sympathy group. Unexpectedly, there was  
244 also a marginally significant relation between Extraversion and emotional closeness to  
245 sympathy group members. Further, education level significantly related to emotional  
246 closeness to sympathy group: participants with a university degree reported less  
247 closeness than those without. Finally, native language also had a significant relation  
248 with emotional closeness to sympathy group. Respondents who indicated Dutch or  
249 another native language reported more closeness, compared to participants who  
250 indicated English as their language. This model accounted for 4% of the variance in  
251 emotional closeness to sympathy group (adjusted  $R^2 = .04$ ,  $F(5, 470) = 5.24$ ,  $p <$   
252  $.001$ ).

## 253 **4. Discussion**

### 254 *4.1. Summary of findings*

255 This study examined the associations between the six HEXACO personality  
256 dimensions and the size and emotional closeness of individuals' innermost network  
257 layers. Regarding layer size, our findings suggest that extraverts have larger support  
258 groups, but not larger sympathy groups. Although previous studies have repeatedly  
259 demonstrated a relation between Extraversion and network size (Asendorpf &  
260 Wilpers, 1998; Pollet et al., 2011), further research is needed to clarify whether this  
261 relation can be observed at *all* network layers. For now, there is good evidence that  
262 Extraversion positively relates to support group size. With respect to emotional  
263 closeness to network members, our findings are in line with previous research (Pollet  
264 et al., 2011), suggesting that there is no significant relation between Extraversion and  
265 emotional closeness to either support or sympathy group members.

266           This result may seem counterintuitive given that Extraversion is linked to  
267 behaviors that attract social attention (Ashton et al., 2002), and that extraverts are  
268 more outgoing, energetic, and cheerful than introverts (Kalish & Robbins, 2006).  
269 Thus, if extraverts have more frequent social interactions than introverts—and  
270 frequency of contact between individuals is linked to emotional closeness (Roberts &  
271 Dunbar, 2011b; Saramäki et al., 2014)—it may be expected that extraverts would  
272 build relationships with higher emotional closeness. However, we found a negative  
273 relation between support group size and emotional closeness, suggesting a trade-off  
274 between maintaining a large network and having emotionally close relationships  
275 (Roberts et al., 2009; Binder et al., 2012). Together, results suggest that extraverts  
276 may focus on maintaining a larger number of ties, rather than developing the  
277 emotional closeness of those ties.

278           Interestingly, our results suggest that Openness to Experience positively  
279 relates to support group size, but not necessarily sympathy group size. This result is  
280 consistent with previous theoretical interpretations of Openness as reflecting  
281 inquisitiveness and creativity, thus potentially yielding social benefits and social  
282 attention (Ashton & Lee, 2007; Nettle, 2007). Future research could more closely  
283 examine whether Openness to Experience is indeed related to a larger number of  
284 relationships in the innermost network layers, or a larger number of new contacts, in  
285 particular (Zhu et al., 2013).

286           In line with predictions, Honesty-Humility, which reflects a tendency to  
287 approach others with sincerity and fairness (Lee & Ashton, 2004), positively related  
288 to emotional closeness, albeit only for sympathy groups. Our results suggest that there  
289 is no direct, significant, relationship between Honesty-Humility and emotional  
290 closeness to support group members. Further, contrary to hypotheses, Agreeableness

291 does not seem to relate to emotional intimacy at any layer. Combined, these results  
292 suggest that the HEXACO is a useful alternative to Big-Five models, especially due to  
293 the inclusion of Honesty-Humility and, in particular, for examinations of emotional  
294 closeness in social network research.

295         Finally, our results are only partially consistent with previous work suggesting  
296 that Neuroticism does not relate to network size or other network characteristics  
297 (Asendorpf & Wilpers, 1998; Roberts et al., 2008). Using HEXACO Emotionality,  
298 which includes sentimentality but excludes anger content, we found that Emotionality  
299 is marginally but positively related with support group size. This finding points to the  
300 possibility that Emotionality is associated with increased, rather than decreased  
301 (Russell et al., 1997; Stokes, 1985), social support. Although Emotionality also  
302 correlates with emotional closeness to support group members, this relationship seems  
303 entirely attributable to gender differences in Emotionality (Lee & Ashton, 2004).

#### 304 *4.2. Strengths, limitations, and future directions*

305         Our research contributes to the literature on individual differences and social  
306 networks in three ways. First, whereas previous work has focused on specific traits,  
307 such as Extraversion and Neuroticism (Pollet et al., 2011; Roberts et al., 2008), our  
308 study examined how all six HEXACO personality dimensions are related to network  
309 size and emotional closeness. Second, in investigating the effects of HEXACO traits  
310 on network characteristics, we differentiated between support and sympathy groups  
311 (Dunbar & Spoor, 1995; Stiller & Dunbar, 2007), rather than treating social networks  
312 as homogeneous (e.g., Asendorpf & Wilpers, 1998; Selfhout et al., 2010). Finally, we  
313 investigated both the quantity and quality of relationships within network layers,  
314 examining both the number and emotional closeness of participants' ties.

315           However, our study was cross-sectional and therefore cannot address  
316 questions of causality—does personality influence the size and emotional closeness of  
317 social networks, or do social network characteristics influence personality? Although  
318 the former seems more likely—given that personality traits show a high degree of  
319 stability over time—longitudinal work is needed to address this question directly.

320           Moreover, our findings point to rather weak associations between personality  
321 and the number and emotional strength of close ties, in terms of proportion of  
322 explained variance. One possibility is that the questionnaires we used are not valid  
323 measures of the intended constructs. While this is unlikely for the HEXACO-60—  
324 which has good levels of reliability and self-observer agreement (Ashton & Lee,  
325 2009), less is known about the reliability of network size measures. Previous work  
326 suggests that interviews as a method of eliciting personal networks have relatively  
327 high levels of test-retest reliability (for a review, see Brewer et al., 2000). In terms of  
328 questionnaire approaches, various research groups have used measures of group size  
329 and emotional closeness that are similar to the ones used here and they have found  
330 networks of similar size (Binder et al., 2012; Buys & Larson, 1979; Cummings et al.,  
331 2006; Dunbar & Spoor, 1995; Jeon & Buss, 2007; Roberts et al. 2009).

332           However, these measures have two potential drawbacks. First, our measure of  
333 support and sympathy groups allows participants to include all reported network  
334 members in either one or the other group—and participants can be more or less  
335 ‘inclusive’ in naming network members, irrespective of the objective size of these  
336 groups. Second, our emotional closeness measure could be influenced by response  
337 styles, whereby some respondents generally report more closeness, irrespective of the  
338 actual closeness of their ties. However, an 18-month longitudinal study demonstrated  
339 that self-reported emotional closeness is significantly related to the number of mobile

340 phone calls participants make to network members (Saramäki et al., 2014). This  
341 suggests that self-reported emotional closeness meaningfully relates to objective  
342 communication patterns. Further research could use the ‘digital trace’ left by  
343 electronic communication (Lazer et al., 1999) to examine in more detail how  
344 personality characteristics relate to individuals’ interaction patterns.

#### 345 *4.3 Conclusion*

346 In summary, this study suggests that the personality traits of Extraversion,  
347 Openness to Experience, and Honesty-Humility, meaningfully relate to network layer  
348 size and emotional closeness to network members. However, current findings also  
349 indicate that a large proportion of variability in network characteristics is not  
350 accounted for by either personality or basic demographics. As such, future social  
351 network research could complement and extend this work by using more objective  
352 measures of interaction with network members and examining how other factors—for  
353 example, one’s childhood environment or current social setting (e.g., neighborhood,  
354 workplace)—influence the quantity and quality of close relationships.

#### 355 **Acknowledgments.**

356 To be included.



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## Appendix

*Table 1.* Hierarchical regressions for network layer size (BcA bootstrapping; 1,000 samples).

Dependent variable	Model	Predictors	B	<i>b</i> (bootstrap)	<i>p</i> (bootstrap)	Lower	Upper
Support group size	<i>Model 1</i> ( $R^2 = 0.04$ )	Emotionality	0.101	0.552	.060	-0.077	1.072
		Extraversion	0.131	0.751	.004	0.267	1.260
		Openness to Experience	0.131	0.737	.002	0.292	1.170
Sympathy group size	<i>Model 1</i> ( $R^2 = 0.03$ )	Language (Dutch/English vs. Other)	-0.204	-1.870	.001	-2.780	-0.972
		Language (Dutch/Other vs. English)	-0.018	-0.203	.756	-1.426	1.050

*Notes.* Sympathy group size is excluding support group members. Lower and upper represent lower and upper 95% CI for bootstrapped estimates.

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Table 2. Hierarchical regressions for emotional closeness (EC) (BcA bootstrapping; 1,000 samples).

Dependent variable	Model	Predictors	$\beta$	<i>b</i> (bootstrap)	<i>p</i> (bootstrap)	Lower	Upper
EC support group	<i>Model 1</i> ( $R^2 = 0.01$ )	Emotionality	0.091	1.811	.039	0.077	3.760
		Emotionality	0.012	0.229	.806	-1.695	2.190
	<i>Model 2</i> ( $R^2 = 0.04$ )	Gender	0.182	4.816	.002	2.292	7.765
		Emotionality	0.028	0.557	.571	-1.448	2.624
	<i>Model 3</i> ( $R^2 = 0.05$ )	Gender	0.163	4.311	.003	1.746	7.125
		Language	-0.141	-3.591	.003	-5.637	-1.409
		(Dutch/English vs. Other)					
		Language	-0.125	-3.959	.006	-6.523	-1.344
		(Dutch/Other vs. English)					
		Emotionality	0.037	0.738	.430	-1.215	2.864
	<i>Model 4</i> ( $R^2 = 0.07$ )	Gender	0.164	4.325	.002	1.851	7.001
		Language	-0.134	-3.399	.004	-5.439	-1.267
		(Dutch/English vs. Other)					
		Language	-0.111	-3.533	.011	-6.157	-0.982
(Dutch/Other vs. English)							
Support group size		-0.151	-0.551	.002	-0.897	-0.222	

*Table 2 continued.*

EC sympathy group	<i>Model 1</i> ( $R^2 = 0.02$ )	Honesty-Humility	0.124	3.751	.008	0.960	6.237
		Extraversion	0.083	2.406	.068	-0.241	5.148
	<i>Model 2</i> ( $R^2 = 0.03$ )	Honesty-Humility	0.134	4.050	.004	1.297	6.434
		Extraversion	0.085	2.472	.057	-0.142	5.165
		Degree	-0.139	-5.419	.003	-8.896	-1.922
	<i>Model 3</i> ( $R^2 = 0.04$ )	Honesty-Humility	0.128	3.858	.006	1.073	6.373
		Extraversion	0.077	2.241	.089	-0.349	4.865
		Degree	-0.118	-4.585	.009	-7.996	-1.060
		Language	-0.088	-3.156	.068	-6.393	0.467
		(Dutch/English vs. Other)					
	Language	-0.128	-5.700	.011	-9.879	-1.517	
	(Dutch/Other vs. English)						

*Notes.* EC sympathy group is excluding support group members. Lower and upper represent lower and upper 95% CI for bootstrapped estimates.

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Footnotes

481 <sup>1</sup> Empirically, Honesty-Humility and Emotionality are less well covered by the five factors of the NEO-FFI than the other HEXACO  
482 factors, suggesting that these two traits—and somewhat Agreeableness—include content that is not well-represented in the Big Five  
483 (Lee & Ashton, 2013).