| | Running head: RELATIONS BETWEEN NEED FOR PRIVACY AND PERSONALITY 1 |
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| 1 | Who needs privacy? Exploring the relations between need for privacy and personality |
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Abstract

Privacy is defined as a voluntary withdrawal from society. While everyone needs some 13 degree of privacy, we currently know little about people's privacy needs. In this study, we 14 explore the relations between the need for privacy and personality. Personality will be 15 operationalized using the HEXACO personality inventory. Need for privacy will be 16 measured in relation to social, psychological, and physical privacy from other individuals 17 (horizontal privacy); need for privacy from government agencies and companies (vertical 18 privacy); as well as need for informational privacy, anonymity, and general privacy (both 19 horizontal and vertical privacy). A sample of 1,293 respondents representative of the U.S. in terms of age, gender, and ethnicity will be collected. The correlations between privacy, 21 personality, and sociodemographics will be analyzed using structural equation modeling. Keywords: Privacy, need for privacy, personality, HEXACO 23

Who needs privacy? Exploring the relations between need for privacy and personality 24 Privacy is a major topic of public discourse and academic interest (Dienlin & Breuer, 25 2022). Yet despite its importance, to date we still know surprisingly little about the relation between privacy and personality (Masur, 2018, p. 155). What can we infer about a 27 person if they desire more privacy? Are they more introverted, more risk-averse, or more 28 traditional? Asking this question seems relevant, not least because people who desire more privacy are often regarded with suspicion, having to justify why they want to be left alone. 30 Consider the "nothing-to-hide" argument (Solove, 2007): People who oppose state 31 surveillance only do so because they have something to hide, because if you have nothing to hide, you would have nothing to fear. Is it true that people who desire more privacy are 33 also more dishonest, greedy, or unfair? Or are people simply less extroverted, more diligent, or more prudent? With this paper, we seek to answer the following question: 35 What can we learn about a person's personality if they say they desire more privacy?

37 Privacy and Personality

Privacy captures a withdrawal from others or from society in general (Westin, 1967).

This withdrawal happens voluntarily, and it is under a person's control (Westin, 1967).

Privacy is also multi-dimensional. On the broadest level, we can differentiate the two dimensions of horizontal and vertical privacy (Masur, Teutsch, & Dienlin, 2018; Schwartz, 1968). Whereas horizontal privacy captures withdrawal from other people or peers, vertical privacy addresses withdrawal from superiors or institutions (e.g., government agencies or businesses). In her theoretical analysis, Burgoon (1982) argued that privacy has four more specific dimensions: informational, social, psychological, and physical privacy. Pedersen (1979) conducted an empirical factor analysis of 94 privacy-related items, finding six dimensions of privacy: reserve, isolation, solitude, intimacy with friends, intimacy with family, and anonymity: Building on this work, in this study we employ a multifaceted model of need for privacy. We focus on vertical privacy with regard to people's felt need for

withdrawal from (a) government surveillance and (b) private companies; horizontal privacy in terms of the perceived need for (c) psychological, (d) social and/or (e) physical 51 withdrawal from other people; and *general* privacy as captured by people's felt need for (f) 52 informational privacy, (g) anonymity, and (h) privacy in general. 53 We understand and measure personality using the HEXACO inventory of personality 54 (Lee & Ashton, 2018). HEXACO is a large and comprehensive operationalization of 55 personality, and thus is less likely to miss potentially relevant factors and facets than other personality constructs. The HEXACO model stands in the tradition of the Big Five approach (John & Srivastava, 1999). It includes six factors (discussed below), which have four specific facets each. In addition, the HEXACO model includes a sixth factor not present in the Big Five labeled honesty-humility (plus a meta-facet called altruism), which seem particularly well-suited to investigate the nothing-to-hide-argument. In predicting the need for privacy, we will primarily focus on the facets, because it is 62 unlikely that the very specific need for privacy dimensions will relate closely to more general personality factors (Bansal, Zahedi, & Gefen, 2010; Junglas, Johnson, & Spitzmüller, 2008). And for reasons of scope, below we cannot discuss all four facets for all six factors. Instead, we focus on those we consider most relevant. However, all we be analyzed empirically.

68 Predicting the Need for Privacy

So far, very few studies have analyzed the relation between personality and need for privacy empirically (Hosman, 1991; Pedersen, 1982, see below). Moreover, we are not aware of a viable theory specifically connecting privacy and personality. Due to the dearth of empirical studies and the lack of theory, in this study we hence adopt an exploratory perspective.

In order to understand how personality might relate to privacy, we can ask ourselves the following question: Why do people desire privacy? Privacy is important. But according

to Trepte and Masur (2017), the need for privacy is only a secondary need—not an end in itself. Accordingly, privacy satisfies other more fundamental needs such as safety, sexuality, 77 recovery, or contemplation. Westin (1967) similarly defined four ultimate purposes of 78 privacy: (1) self-development (i.e., the integration of experiences into meaningful patterns). 79 (2) autonomy (the desire to avoid being manipulated and dominated), (3) emotional release (the release of tension from social role demands), and (4) protected communication 81 (the ability to foster intimate relationships). Privacy facilitates self-disclosure (Dienlin, 82 2014), and so it is hence important for social support, relationships, and intimacy (Omarzu, 2000). But privacy can also have negative aspects. It is possible to have too much privacy. Being cut-off from others can diminish flourishing, nurture deviant behavior, or introduce power asymmetries (Altman, 1975). And privacy can also help conceal wrongdoing or crime. As a general guiding principle based on an evolutionary perspective, we could imagine that if other people, the government, or companies are considered a threat, people are more likely to withdraw and to desire more privacy. Conversely, if something is considered a resource, people might open up, approach others, and desire less privacy (Altman, 1976). In what follows, we briefly present each HEXACO factor and how it might relate to need for privacy. Honesty-Humility & Altriusm. Honesty-humility consists of the facets sincerity, 93 fairness, greed avoidance, and modesty. The meta-facet altruism measures benevolence toward others and consists of items such as "It wouldn't bother me to harm someone I 95 didn't like." According to the nothing-to-hide argument, a person desiring more privacy might be less honest, sincere, fair, or benevolent. People who commit crimes likely face 97 greater risk from some types of self-disclosure, because government agencies and people would enforce sanctions if their activities were revealed (Petronio, 2010). Hence, in those cases the government and other people may be perceived as a threat. As a consequence, 100 people with lower honesty and humility might desire more privacy as a means to mitigate 101 their felt risk (Altman, 1976). 102

Empirical studies have linked privacy to increased cheating behaviors (Corcoran & 103 Rotter, 1987; Covey, Saladin, & Killen, 1989). Covey et al. (1989) asked students to solve 104 an impossible maze. In the surveillance condition, the experimenter stood in front of the 105 students and closely monitored their behavior. In the privacy condition, the experimenter 106 could not see the students. Results showed greater cheating among students in the privacy 107 condition, suggesting that in situations with more privacy people are less honest. While 108 this shows a connection between privacy and dishonesty, other studies more directly 109 support the notion that a desire for privacy is related to increased dishonesty. In a 110 longitudinal sample with 457 respondents in Germany (Trepte, Dienlin, & Reinecke, 2013), 111 people who felt they needed more privacy were also less authentic (and therefore, arguably, 112 also less honest and sincere) on their online social network profiles (r = -.48). People who 113 needed more privacy were also less authentic in their personal relationships (r = -.28).

In conclusion, it seems possible that lack of honesty may indeed relate to an increased need for privacy, and perhaps especially when it comes to privacy from authorities such as government agencies.

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Emotionality. Emotionality is captured by the facets fearfulness, anxiety, 118 dependence, and sentimentality. People who are anxious may be more likely to view social 119 interactions as risky or threatening (especially with strangers or weak ties, Granovetter, 120 1973). Anxious people might hence desire more privacy. People who are more concerned 121 about their privacy (in other words, more anxious about privacy) may be more likely to 122 self-withdraw online, for example by deleting posts or untagging themselves from linked 123 content to minimize risk (Dienlin & Metzger, 2016). On the other hand, the opposite may 124 also be true: People who are more anxious in general may desire less privacy from others 125 (especially their strong ties), as a means to cope better with their daily challenges or to 126 seek social approval to either verify or dispel their social anxiety. 127

People who are more anxious might also desire less privacy from government surveillance. Despite the fact that only 18% of all Americans trust their government "to do

what is right," almost everyone agrees that "it's the government's job to keep the country 130 safe" (Pew Research Center, 2015, 2017). More anxious people might hence consider the 131 government a resource rather than a threat. They might more likely consent to government 132 surveillance, given that such surveillance could prevent crime or terrorism. On the other 133 hand, it could also be that more anxious people desire more privacy from government 134 agencies, at least on a personal level. For example, while they might favor government 135 surveillance of others, this does not necessarily include themselves. Especially if the 136 government is perceived as a threat, as often expressed by members of minority groups, 137 then anxiety might lead one to actually desire more personal privacy. 138

Extraversion. Comprising the facets social self-esteem, social boldness, sociability, and liveliness, extraversion is arguably the factor that should correspond most closely to need for privacy. Conceptually, social privacy and sociability are closely related. More sociable people are likely more inclined to think of other people as a resource, and thus they should desire less horizontal privacy and less anonymity (e.g., Buss, 2001). Given that privacy is a voluntary withdrawal from society (Westin, 1967), people who are less sociable, more reserved, or more shy should have a greater need for privacy from others.

This hypothesis is supported by several empirical studies. People who scored higher 146 on the personality meta-factor plasticity, which is a composite of the two personality 147 factors extraversion and openness, were found to desire less privacy (Morton, 2013). People 148 who described themselves as introverted thinkers were more likely to prefer social isolation 149 (Pedersen, 1982). Introverted people were more likely to feel their privacy was invaded 150 when they were asked to answer very personal questions (Stone, 1986). Pedersen (1982) 151 reported that the need for privacy related to general self-esteem (but not social self-esteem), 152 which in turn is a defining part of extraversion (Lee & Ashton, 2018). Specifically, he found 153 respondents who held a lower general self-esteem were more reserved (r = .29), and needed 154 more anonymity (r = .21) and solitude (r = .24). Finally, Larson and Bell (1988) and 155 Hosman (1991) suggested that people who are more shy also need more privacy. 156

As a result, we hypothesize that people who are more extroverted also need less social privacy and less privacy in general. Regarding the other dimensions of privacy, such as privacy from governments or from companies, we do not pose specific hypotheses.

Agreeableness has the four facets of forgiveness, gentleness. Agreeableness. 160 flexibility, and patience. It is not entirely clear whether or how agreeableness might relate 161 to the need for privacy, although people who are more agreeable are also moderately less 162 concerned about their privacy (Junglas et al., 2008). Thus, because need for privacy and 163 privacy concern are closely related, more agreeable people might desire less privacy. It is 164 also possible that people higher in agreeableness hold more generous attitudes toward 165 others and are less suspicious that others have malicious motives, and consequently 166 perceive less risk from interacting with others. 167

Conscientiousness consists of the facets organization, Conscientiousness. 168 diligence, perfectionism, and prudence. Arguably, all facets are about being in control, about reducing relevant risks and future costs. Because control is a central part of privacy 170 (Westin, 1967), people who avoid risks, who deliberate, and who plan ahead carefully, 171 might prefer to have more privacy because it affords them greater control. Especially if 172 others are considered a threat, being risk averse might increase the desire for more 173 horizontal privacy. Similarly, if government agencies or private companies are considered a 174 threat, risk averse people might have a stronger desire for vertical privacy. In either case, 175 the most cautious strategy to minimize risks of information disclosure would be to keep as 176 much information as possible private. Empirical studies have found that people with a 177 stronger control motive require slightly more seclusion (r = .12) and anonymity (r = .15)178 (Hosman, 1991). People who considered their privacy at risk are less likely to disclose 179 information online (e.g., Bol et al., 2018). Moreover, conscientious people are more 180 concerned about their privacy (Junglas et al., 2008). 181

Openness to experience. Openness to experiences comprises the facets aesthetic appreciation, inquisitiveness, creativeness, and unconventionality. Openness to experience

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is also considered a measure of intellect and education. In one study it was found that more educated people have more knowledge about how to protect their privacy (Park, 2013), which could be the result of an increased need for privacy. In another study, openness to experience is positively related to privacy concern (Junglas et al., 2008)

On the other hand, openness is conceptually the opposite of privacy. People more open to new experiences might not prioritize privacy. Many digital practices such as social media, online shopping, or online dating offer exciting benefits and new experiences, but pose a risk to privacy. People who are more open to new experiences might focus on the benefits rather than the potential risks. Hence, either a positive or negative relationship between need for privacy and openness is possible.

Socio-demographic variables. The need for privacy should also be related to 194 sociodemographic aspects, such as sex, age, education, and income. For example, a study of 3,072 people from Germany found that women desired more informational and physical 196 privacy than men, whereas men desired more psychological privacy (Frener, Wagner, & 197 Trepte, 2021). In a nationally representative study of the U.S. and Japan, people who were 198 older and who had higher income reported more privacy concern. More educated people 190 possess more privacy knowledge (Park, 2013), and as a consequence they might desire more 200 privacy. Ethnicity might also correspond to the need for privacy, perhaps because members 201 of minority groups desire more privacy from the government, although not necessarily from 202 other people. Some minorities groups (e.g., Black or Native Americans) often report lower 203 levels of trust in white government representatives (Koch, 2019), which might increase the 204 desire of privacy from government agencies. Last, we will examine whether one's political 205 position is related to the need for privacy. We could imagine that more right-leaning people 206 desire more privacy from the government, but not necessarily from other people. People 207 who are more conservative tend to trust the government slightly less (Cook & Gronke, 208 2005), which might be associated with an increased need for privacy. We will also explore 200 whether a person's romantic relationship status corresponds to their expressed need for 210

211 privacy.

212 Method

This section describes how we determine the sample size, data exclusions, the
analyses, and all measures in the study. The Study will be conducted as an online
questionnaire, programmed with Qualtrics. A preview of the survey can be found here.

216 Prestudy

This study builds on a prior project in which we analyzed the same research question 217 (Dienlin & Metzger, 2019). This study was already submitted to Collabra, but rejected. 218 The main reasons were that the sample was too small, that not one coherent personality 219 inventory was used, that most privacy measures were designed ad-hoc, and that the 220 inferences were too ambitious. We hence decided to treat our prior project as a pilot study 221 and to address the criticism by conducting a new study. In this new study, we redevelop 222 our study design, we collect a larger sample, implement the HEXACO inventory together 223 and established need for privacy measures, and overall adopt a more exploratory 224 perspective. Being our central construct of interest, we also develop a small number of new 225 items to have a more comprehensive measure of need for privacy.

227 Sample

Participants will be collected from the professional online survey panel Prolific. The sample will be representative of the US in terms of age, gender, and ethnicity. The study received IRB approval from the University of Vienna (#20210805_067). We calculated that participation will take approximately 15 minutes. We will pay participants \$2.00 for participation, which equals an hourly wage of \$8.00.

To determine sample size, we ran a priori power analyses. Note that the final analyses will be conducted using structural equation modeling (SEM), for which exact power analyses are difficult to obtain. We therefore conducted preliminary power analyses

using two-sided bivariate correlations. Hence, the following power analyses are not exact 236 but rather a rough guide to get a better idea of the required minimum sample size. We 237 based our power analysis on a smallest effect size of interest (SESOI). We only considered 238 effects at least as great as r = .10 as sufficiently relevant to support an effect's existence 239 (Cohen, 1992). Adopting an exploratory perspective, not wanting to miss actually existing 240 effects, we considered both alpha and beta errors to be equally relevant. We hence opted 241 for balanced alpha and beta errors of 5%. A power analysis with an alpha and beta error of 242 5% and an effect size of r = .10 revealed that we required a sample size of N = 1293. We 243 obtained sufficient funding to collect a sample of this size. Hence, we will use two inference 244 criteria: Effects need to show a p-value of below p=5% and an effect size of at least r=245 .10. 246

247 Planned Analyses

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We will individually check answers for response patterns such as straight-lining or
missing of inverted items. We will conservatively remove participants with clear response
patterns. We will automatically exclude participants who miss the two attention checks we
will implement. Participants who miss one attention check will be checked individually
regarding response patterns. We will remove participants below the minimum participation
age of 18 years. We will remove respondents with unrealistically fast responses (three
standard deviations below the median response time).

Missing responses will be imputed using multiple imputation with predictive mean matching (five datasets, five iterations, using all variables). The analyses will be run with all five datasets, and the pooled results will be reported.

The factorial validity of the measures and the hypotheses will be tested using
structural equation modeling. If Mardia's test shows that the assumption of multivariate
normality is violated, we will use the more robust Satorra-Bentler scaled and
mean-adjusted test statistic (MLM) as estimator. We will test each scale in a confirmatory

factor analysis. To assess model fit, we will use more liberal fit criteria to avoid overfitting 262 (CFI > .90, TLI > .90, RMSEA < .10, SRMR < .10) (Kline, 2016). In cases of misfit, we 263 will conservatively alter models using an a priori defined analysis pipeline (see online 264 supplementary material). As a "reality check," we will test items for potential ceiling and 265 floor effects. If means are below 1.5 or above 6.5, these items will be excluded. 266

We want to find out who needs privacy, and not so much what causes the need for privacy. Hence, to answer our research question, in a joint model combining all variables 268 (including sociodemographic variables) we will analyze the variables' bivariate relations. To predict the need for privacy, we will first use the six personality factors. Afterward, we will 270 predict privacy using the more specific facets. To get a first idea of the variables' potential causal relations, we will also run a multiple structural regression model. 272

Fully latent SEMs seldom work instantly, often requiring modifications to achieve 273 satisfactory model fit. Although we explicate our analysis pipeline, there still remain several researcher degrees of freedom. We decided to use fully latent SEMs because we consider it superior to regular analyses such as correlation or regression using manifest 276 variables (Kline, 2016). Combining several items into a latent factors helps reduce error and condense information, thereby reducing noise. Together, this should provide a better measure of the latent variables, which will also reduce the beta error. To provide context, 279 in the online supplementary material (OSM) we will also share the results of alternative 280 analyses, such as correlations of average scores.

We anticipate to finish the project three months after our registration was accepted.

Measures

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All items will be answered on a 7-point Likert scale ranging from 1 (strongly disagree) 284 to 7 (strongly agree). A list of all the items that we will use are reported in the online

¹ Note that the HEXACO inventory normally uses 5-point scales. Because we were not interested in comparing absolute values across studies, we used 7-point scales to have a uniform answer format across all

supplementary material. The personality and privacy items will be presented in random 286 order, and the sociodemographic questions will be asked at the end. We will later report 287 also the results of the CFAs/EFAs, as well as item statistics and their distribution plots. 288 Need for privacy. Although there exist several operationalizations of need for 289 privacy (Buss, 2001; Frener et al., 2021; Marshall, 1974; Pedersen, 1979), we are not aware 290 of one encompassing, comprehensive, and up-to-date scale. Hence, we use both existing 291 scales and self-developed items, some of which were tested in our pilot study. Ad-hoc scales 292 were or will be (preliminarily) validated using the following procedure: We (a) collected 293 qualitative feedback from three different privacy experts;² (b) followed the procedure 294 implemented by Patalay, Hayes, and Wolpert (2018) to test (and adapt) the items using 295 four established readability indices (i.e., Flesch-Kincaid reading grade, Gunning Fog Index, 296 Coleman Liau Index, and the Dale-Chall Readability Formula); (c) like Frener et al. 297 (2021), we will assess convergent validity by collecting single-item measures of privacy 298 concern and privacy behavior, for which we expect to find small to moderate correlations; 299 (d) all items will be analyzed in confirmatory factor analyses as outlined above. 300 Overall, we will collect 32 items measuring need for privacy, with eight subdimensions 301 that all consist of four items each. Three subdimensions capture horizontal 302 privacy—namely psychological, social, and physical privacy from other individuals. 303 Psychological and physical privacy were adopted from Frener et al. (2021). Because Frener 304 et al. (2021) could not successfully operationalize the dimension of social privacy, building 305 on Burgoon (1982) we self-designed a new social privacy dimension, which in the prestudy 306 showed satisfactory fit. Two subdimensions measure vertical privacy. The first 307 subdimension is government surveillance, which represents the extent to which people want 308 the government to abstain from collecting information about them. The scale was items.

² The three experts who provided feedback were Moritz Büchi (University of Zurich), Regine Frener (University of Hohenheim), and Philipp Masur (VU Amsterdam).

pretested and showed good factorial validity. The second subdimension is need for privacy 310 from companies, which we will measure using four new self-designed items. Finally, three 311 subdimensions capture general privacy. The first subdimension is informational privacy, 312 with items adopted from Frener et al. (2021). The second subdimension is anonymity, 313 which captures the extent to which people feel the need to avoid identification in general. 314 The scale was pretested and showed good factorial validity; one new item was designed for 315 this study. Third, we will also collect a new self-developed measure of general need for 316 privacy. 317

Personality. Personality will be measured using the HEXACO personality 318 inventory. The inventory consists of six factors with four dimensions each, including the 319 additional meta scale of "altruism". 320

Results 321

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To visualize how results might look like, we have simulated some random data. 322 Please note that these results are completely random and do not make sense from a 323 theoretical perspective. When calculating the multiple regressions, the models did not 324 converge, which is why several estimates could not be computed (see below). In Table 1, we report how sociodemographics predict need for privacy. 326

In Table 2, we report how personality factors predict need for privacy.

In Table 3, we report how personality facets predict need for privacy. 328

Table 1

Predicting the need for privacy dimensions using sociodemographic variables.

| | Need for privacy | | | | | | | |
|-------------------|------------------|-------|--------|-------|-------|---------|---------|---------|
| Sociodemographics | Social | Phys. | Psych. | Comp. | Gov. | Anonym. | Inform. | General |
| Age | -0.05 | 0.16 | 0.00 | 0.02 | -0.29 | 0.41 | -0.14 | 0.31 |
| Gender | 0.20 | 0.00 | -0.03 | -0.03 | -0.12 | -0.06 | 0.04 | -0.51 |
| Ethnicity | 0.19 | 0.05 | -0.01 | -0.01 | 0.05 | -0.07 | 0.01 | -0.47 |
| Relationship | 0.09 | -0.04 | -0.01 | 0.00 | -0.19 | -0.07 | -0.11 | -0.19 |
| College | -0.10 | 0.07 | -0.03 | -0.03 | -0.07 | 0.10 | 0.07 | -0.42 |
| Income | -0.10 | -0.07 | 0.04 | -0.01 | 0.12 | -0.13 | -0.08 | -0.22 |
| Conservatism | -0.26 | 0.06 | 0.12 | 0.01 | -0.05 | 0.30 | -0.03 | 0.48 |

Table 2

Predicting the need for privacy dimensions using personality factors.

| | Need for privacy | | | | | | | |
|---------------------|------------------|-------|--------|-------|-------|---------|---------|---------|
| Personality factors | Social | Phys. | Psych. | Comp. | Gov. | Anonym. | Inform. | General |
| Honesty humility | -0.31 | 0.01 | -0.01 | 0.24 | 0.26 | -0.84 | -0.03 | -0.29 |
| Emotionality | 0.94 | -0.02 | 0.07 | -0.47 | -0.05 | 1.26 | 0.05 | 0.20 |
| Extraversion | -0.99 | -0.03 | 0.07 | 0.77 | 1.76 | -0.09 | 0.71 | -2.69 |
| Agreeableness | -0.63 | 0.04 | -0.11 | -0.51 | 0.83 | 0.95 | 0.08 | 2.08 |
| Conscientiousness | 0.25 | -0.01 | 0.02 | 0.01 | -0.82 | -0.05 | 0.15 | -0.13 |
| Openness | 0.07 | 0.01 | -0.07 | -0.56 | 0.09 | 0.99 | 0.11 | -0.21 |

 $\label{thm:constraint} \begin{tabular}{ll} Table 3 \\ Predicting the need for privacy dimensions using personality facets. \end{tabular}$

| | Need for privacy | | | | | | | |
|-------------------------|------------------|-------|--------|-------|-------|---------|---------|---------|
| Personality facets | Social | Phys. | Psych. | Comp. | Gov. | Anonym. | Inform. | General |
| Honesty humility | | | | | | | | |
| Sincerity | -0.63 | 0.01 | -0.87 | 0.38 | -0.51 | 0.22 | -0.04 | 0.44 |
| Fairness | 0.05 | 0.01 | 0.02 | -0.31 | 0.50 | 1.61 | 0.16 | -1.67 |
| Greed avoidance | 0.17 | -0.06 | -3.01 | -0.47 | -1.51 | 1.03 | 2.07 | 10.89 |
| Modesty | 0.43 | -0.01 | -1.11 | -0.61 | 0.57 | 1.92 | 0.17 | 2.29 |
| Emotionality | | | | | | | | |
| Fearfulness | 0.68 | 0.00 | 0.62 | 0.60 | 0.62 | 1.46 | 0.58 | 1.23 |
| Anxiety | -0.64 | 0.03 | -0.20 | -0.05 | 0.42 | -0.83 | -0.05 | -0.32 |
| Dependence | -0.39 | 0.00 | 0.23 | -0.15 | -0.02 | -0.31 | 0.26 | 1.12 |
| Sentimentality | -0.88 | 0.02 | -0.70 | 0.44 | 0.23 | -0.08 | 0.30 | 1.66 |
| Extraversion | | | | | | | | |
| Social Self-Esteem | -0.44 | 0.02 | 0.16 | 0.28 | -0.32 | 0.85 | -0.49 | -2.70 |
| Social Boldness | -0.91 | -0.03 | -0.21 | -0.25 | 0.51 | 3.05 | 0.36 | -0.07 |
| Sociability | -0.49 | -0.01 | 0.32 | 0.36 | 0.11 | 2.36 | 0.02 | -0.07 |
| Liveliness | 2.00 | 0.00 | -2.64 | -2.49 | -1.39 | 9.42 | -4.20 | -6.43 |
| Agreableness | | | | | | | | |
| Forgiveness | -0.45 | 0.03 | 0.26 | -0.50 | -0.17 | 0.80 | -0.23 | -0.51 |
| Gentleness | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.00 | -0.03 |
| Flexibility | -0.25 | 0.01 | 0.26 | -0.30 | 0.54 | 0.08 | 0.38 | 1.40 |
| Patience | 0.33 | -0.02 | 0.11 | -0.34 | -0.63 | -3.00 | 0.16 | -0.56 |
| Conscientiousness | | | | | | | | |
| Organization | -2.04 | 0.02 | 0.61 | -0.51 | 2.55 | 1.02 | 1.42 | 3.58 |
| Diligence | -0.27 | -0.01 | 0.08 | -0.20 | -0.07 | 1.10 | 0.28 | 0.79 |
| Perfectionism | -0.41 | 0.03 | 0.69 | -1.26 | 0.53 | 0.89 | -0.39 | 1.79 |
| Prudence | 0.54 | -0.02 | -0.50 | -0.04 | -1.17 | -3.02 | -0.69 | 1.36 |
| Openness to experiences | | | | | | | | |
| Aesthetic Appreciation | -0.30 | 0.00 | -0.94 | -0.07 | -0.44 | -2.01 | -0.35 | 0.15 |
| Inquisitiveness | -1.49 | -0.03 | -0.14 | 0.31 | 0.12 | -0.56 | -0.67 | 1.12 |
| Creativeness | 0.19 | 0.00 | 0.01 | -0.65 | -0.11 | 2.46 | 0.07 | -0.12 |
| Unconventionality | -0.82 | -0.02 | 0.54 | -0.08 | 0.12 | 1.52 | 0.05 | 0.97 |
| Altruism | 0.56 | 0.00 | -0.28 | 0.18 | -0.33 | -0.36 | 0.36 | 0.70 |

In Figure 1, you can find how each personality factor—while holding constant for all other personality factors and sociodemographics—predicts need for privacy.

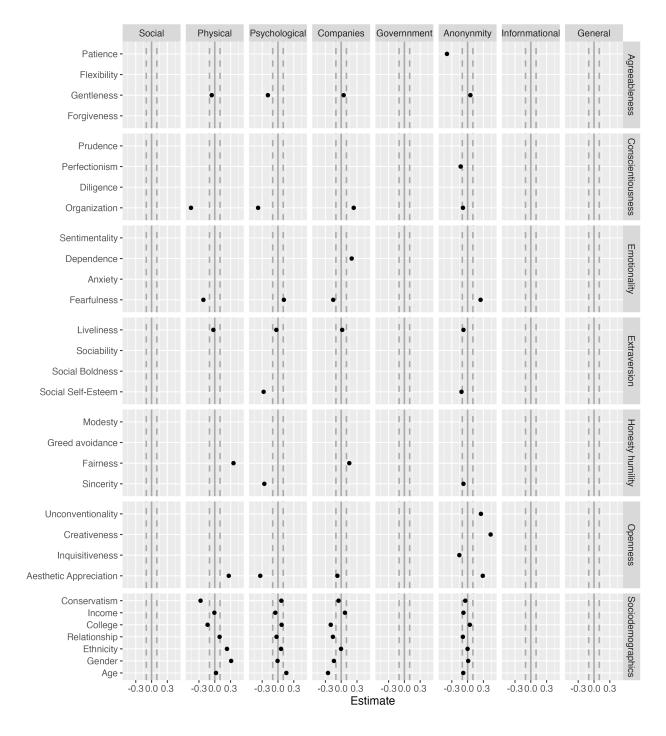


Figure 1. Results of multiple regressions, in which we predict all dimensions of need for privacy using all personality dimensions and sociodemgraphic factors simultaneously.

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436 Contributions

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Conflict of Interests

Both authors declare no conflict of interests.

Supplementary Material

All the stimuli, presentation materials, participant data, analysis scripts, and a
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supplementary material on the open science framework (https://osf.io/e47yw/). The paper
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(https://tdienlin.github.io/Who_Needs_Privacy_RR/proposal.html).

Data Accessibility Statement

The data will be shared on the open science framework (https://osf.io/e47yw/) and on github.