# Journal of Personality and Social Psychology: Personality Processes and Individual Differences

## Who in the World is Trying to Change Their Personality Traits? Volitional Personality Change Among College Students in 56 Countries
### --Manuscript Draft--

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| **Manuscript Number:** | PSP-P-2020-2081R3 |
| **Full Title:** | Who in the World is Trying to Change Their Personality Traits? Volitional Personality Change Among College Students in 56 Countries |
| **Abstract:** | Recent research conducted largely in the US suggests that most people would like to change one or more of their personality traits. Yet almost no research has investigated the degree to which and in what ways volitional personality change (VPC), or individuals' active efforts towards personality change, might be common around the world. Through a custom-built website, 13,278 college student participants from 56 countries using 42 different languages reported whether they were currently trying to change their personality and, if so, what they were trying to change. Around the world, 60.40% of participants reported that they are currently trying to change their personalities, with the highest percentage in Thailand (81.91%) and the lowest in Kenya (21.41%). Among those who provide open-ended responses to the aspect of personality they are trying to change, the most common goals were to increase emotional stability (29.73%), conscientiousness (19.71%), extraversion (15.94%), and agreeableness (13.53%). In line with previous research, students who are trying to change any personality trait tend to have relatively low levels of emotional stability and happiness. Moreover, those with relatively low levels of socially desirable traits reported attempting to increase what they lacked. These principal findings were generalizable around the world. |
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Final comments from the editor:

1. Thank you again for incorporating the country-level variable analyses in more detail in this revision. Now that you have provided more detail, this has led to me one final question/request. When suggesting these analyses, I had expected that they would be conducted within a multilevel model (i.e., country-level variables predicting individual-level VPC), much like the primary analyses in the main manuscript, but it does not appear that they were. Perhaps it would not make a difference, but I would be curious to know the results of such multilevel models or why the aggregated correlational approach is preferable. If examining these variables with multilevel models does provide new insights, please include these in your revised manuscript.

   *We have now run MLM analyses as requested and have added standardized beta coefficients with 99% CIs to Table 1 of the supplementary materials. Unlike the overall correlational analyses, when analyzed via MLM country-level subjective health was a significant predictor of VPC. I have included this finding in the discussion section of the manuscript, and in the body of the country-level supplementary materials write up. See below for quoted text in the manuscript:*

   *"We explored this question of country-level indicators predicting country-level VPC by (1) correlating country-level variables and VPC proportion, and (2) running a series of multi-level models predicting individual-level VPC from country-level indicators with accounting for country-level nesting. Of 35 potential correlates, none crossed the p < .01 threshold used throughout this study. Of 35 MLM models, only subjective health predicted VPC at the p < .01 level indicating that in countries with low subjective health, college students tend to report changing their personality traits, perhaps because cultural-level health issues serve as a reminder that personal change is warranted."*

2. The moderation of the individual correlates and VPC as a function of country-level correlates was very interesting, but it wasn't entirely clear to me how those analyses directly address my question of whether the observed country-level differences in VPC are driven by country-level differences in the correlates. Those analyses tell us whether the relationship at the individual level depends on the country level means, rather than if the individual-level relationship explains the country level differences. Perhaps comparing a model with the country-level mean of, for example, subjective happiness, predicting VPC to one with both country-level and individual-level subjective happiness would more closely address this question, particularly if any relationship between the country-level mean and VPC is accounted for by individual-level subjective happiness. That said, you may wish to also retain the country-level moderator analyses (or to perhaps incorporate those into the above suggested models with a cross-level interaction) or clarify how those analyses address this question.

   **We have now added Table 3 to the supplementary analysis to include your suggested model fit comparison analyses. Here, we report coefficients and CIs for models with mean country-level variables predicting VPC and for models with both country-level and individual-level variables predicting VPC. We also report change in chi-square to test model fit comparison. For all variables of interest (subjective happiness, interdependent happiness, negative**

**emotionality, openness), there was a significant difference between the models indicating that the models with both country and individual-level variables as predictors fit the data best. These results suggest that while mean level differences in country-level subjective happiness, for instance, predict VPC, an individuals' level of subjective happiness significantly contributes to this relationship. As suggested, we chose to incorporate our moderation analyses with cross-level moderation (see Table 3 of Supplementary Materials). See below for the quoted text in the manuscript:**

*"An alternative explanation for country variation in VPC is that mean-level country differences in known correlates of VPC (i.e., subjective happiness, interdependent happiness, negative emotionality, openness) are driving variation in VPC across countries. To explore this possibility, we ran a series of model fit comparisons to test whether country-level differences in the relationships between VPC and happiness, negative emotionality, and openness are accounted for by individual-level relationships. Specifically, we compared models in which mean country-level variables predict VPC with models in which both mean country-level and individual-level variables predict VPC. Results indicate that for all four variables, there were significant model fit comparison indicating that models with both country-level and individual-level predictors fit the data better than those with only country-level predictors. These results suggest that while mean level differences in country-level subjective happiness, for instance, predict VPC, an individuals' level of subjective happiness significantly contributes to this relationship. In other words, country-level variability in VPC is not entirely the bi-product of country mean-level differences in known correlates of VPC. Moreover, for subjective happiness and negative emotionality, there is a significant interaction between mean country-level and individual level factors suggesting that the relationship between subjective happiness and negative emotionality are stronger in countries with higher mean-levels of these variables. These results indicate that unhappy people, for instance, are motivated to change their personalities, especially when people in their cultural context are also unhappy (See Table 3 in the Supplementary Materials located at osf.io/kcrwf)."*


Manuscript specific comments from the editorial office:


1. In regard to Open Science, in Revision 2, there is a bit.ly link showing anonymous contributors on page 7, 10,13,17,21,and 29 in the manuscript. By final revision this site will need to be unblinded. This link is on the Title page for Revision 2. In the Revision 2 response to reviewer comments letter, there is mention of supplemental materials on an OSF page: (osf.io/kcrwf/), but this osf link is not in the manuscript. Instead, the bit.ly/3gzJkdO/ is presented. By final revision, this bit.ly link should be replaced with the osf.io/kcrwf/ link as the main repository for all open source materials. On page 10, in revision 2, there is another osf link at osf.io/yv2nq/ for a complete list of measures used for the International Situations Project. By final revision, this osf link should be housed and accessed at the authors' main repository osf page.

   **We have replaced the blinded bit.ly link with the unblinded osf.io link (osf.io/enrd4). We've also moved the complete list of measures to the project OSF page.**

2.  Author #4 is listed as Members of the International Situations Project followed by a list of 133 people. Please remove this as author #4 and instead present the list of 133 people in an Acknowledgement on the Title page, as it is not possible for there to be over 133 authors.

**We note that APA policy encourages collaborative work and advises clear planning for "goals and direction of the study, responsibilities of each contributor, research credit and ownership details, and publication technique" (https://www.apa.org/research/responsible/collaborate). Moreover, we feel that our collaborator's contributions warrant more than an acknowledgement. Specifically, they managed local participant recruitment, translated, and in some cases, developed study materials, translated open-ended responses, and aided in the development of this manuscript. In our project, part of the planning was to ensure the co-authorship of our many international collaborators would be acknowledged in "corporate" form, i.e., listing "Members of the International Situations Project" as an author, accompanied in a footnote by a list of the members. That is what we have done here. We followed this practice in several previous publications, specifically:**

*Baranski, E., Sweeny, K., Gardiner, G., Members of the International Situations Project, & Funder, D.C. (2021). International optimism: Correlates and consequences of dispositional optimism across 61 countries. Journal of Personality, 89(2), 288-304.*

*Gardiner G, Lee D, Baranski E, Funder D, Members of the International Situations Project (2020) Happiness around the world: A combined etic-emic approach across 63 countries. PLoS ONE 15(12): e0242718. https://doi.org/10.1371/journal.pone.0242718*

*Lee, D.I., Gardiner, G., Baranski, E., Members of the International Situations Project, & Funder, D.C. (2020). Situational experience around the world: A replication and extension in 62 countries. Journal of Personality, 88(6), 1091-1110.*

*Gardiner, G., Sauerberger, K., Members of the International Situations Project, & Funder, D. (2019). Towards meaningful comparisons of personality in large-scale cross-cultural studies. In A. Realo (Ed.), In praise of an inquisitive mind: A Festschrift in honor of Jüri Allik on the occasional of his 70th birthday (pp. 123-139). Tartu: University of Tartu Press.*

**In earlier publications when the project was smaller, we actually listed every member of the Project individually:**

*Baranski, E., Gardiner, G., Guillaume, E., Aveyard, M., Bastian, B.,Bronin, I., Ivanova, C., Cheng, J.T., De Kock, F.S., Denissen, J.J.,Gallardo-Pujol, D., Halama, P., Han, G.Q., Bae, J., Moon, J., Hong,R.Y., Hřebíčková, M., Graf, S., Izdebski, P., Lundmann, L., Penke,L., Perugini, M., Costantini, G., Rauthmann, J., Ziegler, M., Realo,A., Elme L., Sato, T., Kawamoto, S., Szarota, P., Tracy, J.L., van Aken, M.A., Yang, Y., & Funder, D.C. (2017). Comparisons of daily behavior across 21 countries. Social Psychological and Personality Science, 8(3), 252-266.*

*Guillaume, E., Baranski, E., Todd, E., Bastian, B., Bronin, I., Ivanova, C., Cheng, J.T., de Kock, F.S., Denissen, J.J.A., Gallardo-Pujol, D., Halama, Pl, Han, G.Q., Bae, J., Moon, J., Hong, R.Y., Hřebíčková, M., Graf, S., Izdebski, P., Lundmann, L., Penke, L., Perugini, M., Costantini, G., Rauthmann, J., Ziegler, M., Realo, A., Elme, L., Sato, T., Kawamoto, S., Szarota, P., Tracy, J.L.,*

*van Aken, M.A.G., Yang, Y., & Funder, D.C. (2016). The world at 7: Comparing the experience of situations across 20 countries. Journal of Personality, 84(4), 493-509.*

**This previous practice is not feasible with 133 members, which is why we have more recently followed the "corporate author" model. We respectfully request that we be allowed to honor the plans we made with our international team of research collaborators, by following exactly the same practice as in the more recent publications referenced above.**

The following are general requirements requested for every manuscript, and some may not apply or have already been addressed:

1. Ensure adherence to APA's 2018 Journal Article Reporting Standards (http://www.apa.org/pubs/journals/emo/?tab=4), including providing a rationale for sample sizes and reporting effect sizes and 95% confidence intervals.

   **The current manuscript adheres to APA's reporting standards**

2. All masked references and links, if any, should be unmasked.

   **We have unmasked authorship throughout.**

3. Ensure that IRB disclosures are provided either at the beginning of each method section, or if appropriate, one blanket statement can be provided at the beginning of the first methods section to cover all studies. The statement (or statements) should specify the institutional and/or licensing committee (i.e., the granting body) that approved your study, as well as provide the protocol number (if any) and title of the study. If your institutional review board declared your study exempt from approval, explain this instead of (or in addition to) providing the above information.

   **We have included this information at the beginning of the methods section:**

   *"This study was approved by the University of California Institution Review Board (HS-1-046; The International Situations Project)."*

4. Disclosures regarding prior uses, in whole or in part, of the present data (see detailed instructions below).

   a. If a publicly available list of publications exists on the study's website, provide a link to that list in the methods section. In addition, briefly explain how the present study differs from the most closely related subset of studies (e.g., those examining the same central outcome and/or predictor variables) in focus, content, or method, unless these issues were addressed in an earlier section of the paper (e.g., as part of the introduction). Note that all studies cited in the body of the paper should be included in the reference section; those

included in the online list for the sake of completeness, but not cited in the paper itself, should NOT be included in the reference list.

**We have now included a link to our International Situations Project osf page on line 203 of the revision #3. This section also describes how the current project differs from previous manuscripts.**

b. In the event that no publicly available list of publications exists, and four or fewer papers have been previously published from this data set, identify these publications in the method section, or in a note to the methods section. In addition, briefly explain how the present study differs from the earlier publication(s) in focus, content, or method, unless these issues were already addressed in an earlier section of the paper (e.g., in the introduction).

**See our comment to #a above.**

c. In the event that no publicly available list of publications exists, and five or more papers have been previously published from this data set, create and post that list on a public, open-access repository like APA's repository hosted by the Center for Open Science at  https://osf.io/view/apa/. Include the link to this list in the methods section. In addition, briefly explain in the methods section, or in a note to the methods section, how the present study differs from the most closely related study or subset of studies (e.g., those examining the same central outcome and/or predictor variables) in focus, content, or method, unless these issues were addressed in an earlier section of the paper. Note that all studies cited in the body of the paper should be included in the reference section; those included in the online list for the sake of completeness, but not cited in the paper itself, should NOT be included in the reference list.

**See our comment to #a above.**

5. Accessibility of data, materials, and analytic methods and code.  The following requirements apply to all papers submitted on or after Aug 1, 2018.

a. For each unique data set used in the present paper, either provide a publicly accessible, permanent link to the data, or include a brief statement explaining why the data cannot be provided.

**We have included a publicly accessible link to the data.**

b. For each study reported in the present paper, either provide a publicly accessible link to the research materials and protocol, or include a brief statement explaining why these materials cannot be provided.

**We have included a publicly accessible link to the study materials.**

c. For each study reported in the present paper, either provide a publicly accessible, permanent link to the analytic methods and code, or include a brief statement explaining why the analytic code and methods cannot be provided.

   **We have included a publicly accessible link to the analysis R code.**

d. Statements regarding any data, materials, or analytic methods/code that will not be made available upon acceptance should appear in a footnote to the relevant methods section(s).

   **All data, materials, and analysis code have been made publicly available.**

e. With the exception of links noted in 4a and 4c above, authors must provide a single link to a trusted open-access repository within the author note on the title page containing all data and materials that they have agreed to provide. If an author has multiple studies, the repository landing page should clearly identify how to access the specific type of information for each study and the links.

   **The link we provide throughout leads to an open-access repository that includes all data and materials.**

6. If any part of this work was pre-registered, the link (or links) to the pre-registration document(s) must be included on the repository landing page along with any other links (see point 5e).

   **This study was not pre-registered.**

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April 23, 2021,

Dear Dr. Human,

Thank you for the opportunity to further revise our paper, "Who in the World is Trying to Change Their Personality Traits?: Volitional Personality Change among College Students in 56 Countries " for consideration of publication in the *Journal of Personality and Social Psychology: Personality Processes and Individual Differences*.

We have addressed your few remaining comments in the memo attached to this letter and have revised the manuscript as you have suggested. Specifically, we related VPC and existing country-level variables in an MLM format as well as ran a series of model-fit comparisons to further explore country-level variation in VPC.

We have also responded to all of the comments from the editorial office. Please see our point-by-point response to their requests in the memo attached. Note, we have opted not to remove the corporate authorship (i.e., Members of the International Situations Project) and move all 133 international collaborating authors to acknowledgements, as requested by the editorial office. Briefly, (see a detailed explanation in the attached memo), our collaborators were responsible for local participant recruitment and have contributed substantially to survey measures development/translation, open-ended response translation, and manuscript preparation. We believe that our collaborators deserve more than an acknowledgement for their contribution. Moreover, we feel that our ambitious international collaboration is in line with APA's recommendations for collaborative work. Thus, we respectively request that all 133 collaborators be included as authors under corporate authorship.

We thank you again for your continued thoughtfulness throughout this review process. We whole heartedly appreciate your feedback and look forward to hearing from you.

Thank you,

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VOLITIONAL PERSONALITY CHANGE

Who in the World is Trying to Change Their Personality Traits?

Volitional Personality Change Among College Students in 56 Countries

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9 Who in the World is Trying to Change Their Personality Traits?:

10 Volitional Personality Change among College Students in 56 Countries

11

12 4/24/2021

13                                         Abstract

14    Recent research conducted largely in the US suggests that most people would like to change one

15    or more of their personality traits. Yet almost no research has investigated the degree to which

16    and in what ways volitional personality change (VPC), or individuals' active efforts towards

17    personality change, might be common around the world. Through a custom-built website, 13,278

18    college student participants from 56 countries using 42 different languages reported whether they

19    were currently trying to change their personality and, if so, what they were trying to change.

20    Around the world, 60.40% of participants reported that they are currently trying to change their

21    personalities, with the highest percentage in Thailand (81.91%) and the lowest in Kenya

22    (21.41%). Among those who provide open-ended responses to the aspect of personality they are

23    trying to change, the most common goals were to increase emotional stability (29.73%),

24    conscientiousness (19.71%), extraversion (15.94%), and agreeableness (13.53%). In line with

25    previous research, students who are trying to change *any* personality trait tend to have relatively

26    low levels of emotional stability and happiness. Moreover, those with relatively low levels of

27    socially desirable traits reported attempting to increase what they lacked. These principal

28    findings were generalizable around the world.

29    *Key words*: volitional personality change, cross-cultural, college students

30                    **Who in the World is Trying to Change Their Personality Traits?:**

31            **Volitional Personality Change among College Students in 56 Countries**

32            Personality changes in small and sometimes large ways throughout the lifespan (see

33      McAdams & Olson, 2010; Roberts et al., 2006). Attempts to understand the underlying

34      mechanisms of personality change have emphasized the effects of life events and shifting social

35      roles (e.g., Bleidorn et al., 2018; Caspi et al., 2005; but see Asselmann et al., 2020). Several

36      studies have focused on personality change that occurs during a common life event for young

37      adults - the transition to college (Bleidorn, 2012; Corker & Donnellan, 2017; Donnellan et al.,

38      2007; Lüdtke et al., 2011). Students are often faced with new social and academic challenges

39      that, to be overcome, require adaptive goal pursuit, personal value adjustment, and even

40      personality change (Astin, 1993; Newcomb, 1973).

41            Recently, researchers have begun to investigate individuals' active role in their

42      personality development, or "volitional personality change" (VPC) (Allemand & Flückiger,

43      2017; Baranski et al., 2016; Hudson & Roberts, 2014; Miller et al., 2019; Quintus et al., 2017).

44      Although this topic would seem to be universally relevant, nearly all previous research on VPC

45      to date has focused on individuals within the United States. In an effort to remedy this omission

46      and generalize VPC findings outside the US, the current project systematically investigates VPC

47      across 56 countries. Specifically, we assess the proportion of college students attempting to

48      change their personality as well as seeking to identify robust and internationally consistent trends

49      in *who* is currently trying to change, and *what* specifically they are trying to change. Regardless

50      of the countries they reside in, college students are all at a potentially transformative period of

51      life. The present study addresses the ways in which their efforts to change their personalities are

52      robust and consistent around the world.

53    **Volitional personality change**

54          Research on VPC has used varying methodologies, but almost all studies have been

55    conducted entirely within the US. These studies have consistently found that (1) the majority of

56    individuals either currently want to or are trying to increase their emotional stability,

57    conscientiousness and extraversion, (2) attempts and desires to change personality are inversely

58    related to psychological well-being, and (3) current levels of certain personality traits are

59    inversely related to desires or attempts to change them (e.g., individuals low in extraversion

60    aspire to be more extraverted; Baranski et al., 2017, 2019; Hudson & Fraley, 2016, Hudson &

61    Roberts, 2014: Hudson et al., 2020: Stieger et al., 2020; Robinson et al., 2015; Stieger et al.,

62    2020; Quintus et al., & 2017).

63          An early investigation used a modified version of the Big Five Inventory (BFI; John &

64    Srivastava, 1999) and demonstrated that between 87% (for agreeableness) and 97% (for

65    conscientiousness) of US participants reported a desire to change their personality traits and that,

66    in the case of extraversion, emotional stability, and conscientiousness, participants' desire for

67    specific Big Five personality changes were negatively related to current, corresponding levels of

68    these traits (Hudson & Roberts, 2014). These researchers also demonstrated that over the course

69    of 16 weeks, individuals who accomplished their personality change goals experienced increases

70    in well-being (Hudson & Fraley, 2016).

71          Moving beyond research that assessed *desires* for personality change, Baranski et al.,

72    (2017, 2020) asked US participants whether they were *currently trying* to change an aspect of

73    their personalities (i.e., yes or no), and if they answered in the affirmative, asked what they were

74    trying to change. 67.5% of participants reported trying to change an aspect of their personalities;

75    for conscientiousness, extraversion and emotional stability, there was a strong, inverse

76    relationship between individuals' current personality trait levels and their reported change

77    attempts. This conceptual replication of Hudson and Fraley (2016) was successful despite the

78    subtle but important distinction between wanting and actually trying to change one's personality.

79          To our knowledge, only one published study has investigated VPC across multiple

80    countries. Robinson and colleagues (2015) asked participants from Iran, China and the United

81    Kingdom to complete the Big Five Trait-Change Goal Inventory (BF-TGI), which asks

82    participants to rate whether and in what direction they want to change each of the Big Five traits

83    (i.e., extraversion, agreeableness, conscientiousness, neuroticism and openness to experience).

84    Participants in Iran had consistently higher proportions of trait change goals in the socially

85    desirable direction (e.g., increases in extraversion, decreases in neuroticism) relative to China

86    and the UK. Also, researchers reported that overall, participants indicated a goal to decrease

87    levels of neuroticism more than any other trait (Robinson et al., 2015).

88          While large-scale, cross-cultural investigations of VPC are rare, evidence elsewhere

89    demonstrates cross-cultural similarities in the pursuit of self-improvement. For instance, self-

90    direction (i.e., independent thought, creating, exploring) consistently ranked high in importance

91    across more than 60 countries (Deci & Ryan, 2008; Schwartz & Bardi, 2001; Schwartz et al.,

92    2001; for a cross-cultural review, see Ryan & Deci, 2000). Similarly, Grouzet and colleagues

93    (2005) found that the goals to feel competent and autonomous were similarly common across 15

94    countries. These tendencies towards self-improvement were particularly pronounced among

95    college students. Indeed, previous research demonstrates that compared to older individuals,

96    college students and college-aged individuals have a higher percentage of goals with a "gain

97    orientation" (Heckhausen, 1997; Penningroth & Scott, 2012).

98    **The relationship between VPC and individual differences**

99      Key components of self-discrepancy theory (SDT) may help build a theoretical

100    foundation in explaining why particular individual difference variables are relevant in

101    distinguishing between those who are and are not trying to change their personality traits

102    (Higgins, 1987). SDT posits that discrepancies between the ideal and actual self are associated

103    with lower levels of happiness (Higgins, 1987). Thus, perhaps the most theoretically relevant

104    individual differences to VPC are those that signal to the individual that there is a discrepancy

105    between their ideal and actual self, and thus the need for personality change. For example,

106    individuals with low levels of happiness and high levels of anxiety or depression may be

107    motivated to shrink the discrepancy between their ideal and actual selves and in the process,

108    alleviate these negative traits and emotions by changing the personality traits they perceive as

109    contributing to their unhappiness, anxiety, and depression (DeFruyt et al., 2006).

110    Previous research suggests several other individual difference variables that may be

111    associated with attempts to change one's personality. For instance, individuals high in narcissism

112    tend to have exaggerated egotism, and thus might not see any need for change (Back et al.,

113    2013). Previous research also demonstrates that individuals high in dispositional optimism tend

114    to take an active approach to personal goal attainment (Carver & Scheier, 2002), and might be

115    similarly willing to work towards specific personality change goals. Conversely, optimists

116    generally view their present circumstances and future personal outcomes as positive (Busseri et

117    al., 2009) and thus might not see any reason to change anything about themselves.

118    Other personality traits might also be relevant for VPC. Individuals high in

119    conscientiousness, for instance, might take responsibility in improving their circumstances and in

120    doing so seek to make active efforts towards their personality change (Soto et al., 2017).

121    Likewise, previous research has shown openness to experience to relate to self-exploration

122    (McAdams et al., 2012), so we may expect individuals high in openness to experience to self-

123    reflect upon the aspects of themselves that they want to change and then explore creative routes

124    towards change. Finally, we may expect religiosity to play a role in whether individuals attempt

125    to change their personalities. Specifically, religious individuals may consider self-improvement

126    as a means to fulfill self-actualization (Watson et al., 1995).

127    **The Current Project**

128         The current project adds to the literature in several key-ways. First, this study is the first

129    to assess the proportion of college students across a large set of countries who are currently

130    trying to change their personality traits. While this aspect of the study is strictly exploratory, it

131    lays the necessary foundation for future confirmatory research that assesses cross-country

132    variation in attempting and achieving personality change.

133         In particular, the current project seeks to establish VPC findings that are generalizable

134    beyond the US. In the emerging field of VPC, across studies with varying methodologies, the

135    majority of participants sampled have indicated a desire or current attempt to change at least one

136    aspect of their personalities. Moreover, there has been a near uniform tendency for current levels

137    of personality traits to be negatively related to desires or attempts to change corresponding traits.

138    The current project is among the first to systematically test the generalizability of these robust

139    and consistent findings outside the US, and the first to do so across over 3 dozen countries. This

140    contribution is particularly important given the field's reliance on W.E.I.R.D samples (white,

141    educated, industrialized, rich, democratic, Heine et al., 2006) and the current push to extend our

142    understanding of individuals outside these populations.

143         Finally, the current project seeks to extend understanding of VPC beyond global

144    personality traits, to facets of personality. Specifically, we utilized the facet structure defined by

145    the Big Five Inventory 2 (BFI-2; Soto & John, 2017). This structure defines each of the Big Five

146    traits along three facets (e.g., extraversion is defined by facets energy level, sociability, and

147    assertiveness), offering more conceptual specificity to measurement. Importantly, while each

148    trait's facets are inter-correlated, they are also meaningfully different and show distinctive

149    relations with self-report and peer-report external criteria (Soto & John, 2017).

150          We assess VPC using a method that combines the use of idiographic, open-ended

151    responses with nomothetic, quantitative coding of the responses. This nomothetic-idiographic

152    approach is especially suitable for measuring volitional personality change for two reasons. First,

153    asking participants to report volitional personality change goals in their own words prompts them

154    to report goals that are readily recalled and thus particularly salient to individuals, especially

155    those that stand up against other more immediately gratifying personal goals (e.g., losing weight,

156    making more money). Indeed, a recent study found that when prompted to list their top ten

157    personal goals, the majority of individuals listed at least one personality change goal (Miller et

158    al., 2019). Second, the idiographic-nomothetic approach limits the risk of demand characteristics.

159    Likert-type personality change goal inventories may prompt participants to endorse several items

160    that are socially desirable yet may not all receive concerted effort towards change in the desired

161    direction from the individual. Thus, in contrast with idiographic-nomothetic methods, Likert-

162    type rating methods may over-estimate volitional personality change goal pursuit.

163          Going beyond previous research in these ways, the current project evaluates VPC by

164    college students across 56 countries. This investigation is exploratory, but is generally guided by

165    four research questions:

166          1.  What proportion of college students around the world and in various countries are

167               currently trying to change their personality traits?

168        2.  What personality traits and other individual differences (e.g., narcissism, optimism,

169              happiness) are associated with whether one is trying to change *any* personality trait?

170              The present 56 country dataset has a range of individual differences that we are

171              exploring to answer this research question.

172        3.  What *specific* traits are college students around the world currently trying to change?

173        4.  How are attempts to change *specific* personality traits related to current personality

174              traits?

<div align="center">

**Method**

</div>

**Participants**

177        This study was approved by the University of California Institution Review Board (HS-1-

178   046; The International Situations Project).  All participants were college students recruited by

179   collaborators who were local faculty members – a total of 13,278[1] participants using 42 different

180   languages from 79 cities, 56 countries[2] and 6 continents (71.82% female; mean age = 21.69

181   years, SD = 4.52 years)[3]. Participants volunteered or were awarded course credit, monetary

182   compensation, or a small gift for their participation. See Table 1 for demographics.

183

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[1] Data from 3 data collection sites had fewer than 50 participants and were not included. Data from 11 additional data collection sites included in previous publications using the ISP dataset (see Lee et al., 2020) did not provide translations of open-ended VPC responses and were thus also not included.

[2] Due to its cultural distinction from China, Hong Kong participants are considered a separate sample from their mainland Chinese counterparts. Thus, while we have included it in our list of countries, we acknowledge that Hong Kong is not a country and is instead a special administrative region.

[3] We ran parallel analyses with the age range limited to 18-29 years. There were no substantial differences between these results and results conducted with the entire sample. See these age standardized analyses in the supplementary materials at osf.io/enrd4.

Table 1

*International sample demographic information*

| Country | Total N | Female % | Mean Age (SD) |
|---|---|---|---|
| Argentina | 140 | 78.57 | 24.28 (5.66) |
| Australia | 197 | 75.63 | 19.71 (3.48) |
| Austria | 113 | 81.42 | 21.26 (2.37) |
| Bolivia | 135 | 57.78 | 21.01 (2.16) |
| Brazil | 309 | 72.17 | 23.68 (7.10) |
| Bulgaria | 150 | 70.67 | 25.05 (6.48) |
| Canada | 302 | 79.14 | 21.86 (3.98) |
| Chile | 384 | 66.41 | 21.45 (3.08) |
| China | 426 | 48.59 | 22.64 (4.39) |
| Colombia | 181 | 74.03 | 21.68 (4.16) |
| Croatia | 218 | 64.68 | 21.46 (1.70) |
| Czech Republic | 193 | 80.83 | 22.65 (4.82) |
| Denmark | 244 | 79.92 | 22.94 (5.12) |
| Estonia | 293 | 83.96 | 25.88 (7.67) |
| France | 228 | 85.53 | 22.60 (6.31) |
| Georgia | 140 | 80.00 | 20.29 (1.79) |
| Germany | 454 | 75.11 | 24.36 (6.39) |
| Hong Kong | 142 | 59.15 | 19.00 (1.27) |
| Hungary | 175 | 60.57 | 21.71 (1.97) |
| India | 221 | 49.77 | 22.38 (4.65) |
| Israel | 171 | 61.40 | 25.35 (4.22) |
| Italy | 717 | 64.57 | 21.86 (3.73) |
| Japan | 242 | 61.98 | 22.58 (4.83) |
| Jordan | 141 | 80.85 | 19.87 (2.14) |
| Kenya | 139 | 65.47 | 21.17 (1.90) |
| Latvia | 169 | 82.84 | 24.87 (6.09) |
| Lithuania | 144 | 78.47 | 20.26 (1.75) |
| Macedonia | 54 | 74.07 | 21.22 (1.73) |
| Malaysia | 228 | 71.05 | 21.53 (2.80) |
| Mexico | 169 | 68.05 | 20.66 (2.18) |
| Netherlands | 300 | 81.33 | 20.13 (3.03) |
| New Zealand | 129 | 86.05 | 19.19 (4.43) |
| Nigeria | 134 | 33.58 | 24.75 (5.67) |
| Norway | 159 | 74.21 | 23.89 (5.04) |
| Pakistan | 114 | 50.00 | 20.61 (2.73) |
| Palestine | 295 | 83.39 | 22.17 (4.81) |
| Philippines | 331 | 69.18 | 19.71 (2.22) |
| Poland | 234 | 83.33 | 22.35 (5.32) |
| Portugal | 156 | 87.82 | 21.66 (5.84) |
| Romania | 177 | 57.06 | 22.84 (5.57) |
| Russia | 158 | 78.48 | 21.92 (4.71) |

| | | | |
|---|---|---|---|
| Serbia | 184 | 86.41 | 19.73 (1.25) |
| Singapore | 136 | 77.94 | 20.93 (2.13) |
| Slovakia | 148 | 69.59 | 22.41 (2.71) |
| Slovenia | 122 | 57.38 | 20.43 (1.54) |
| South Korea | 281 | 58.36 | 22.35 (2.25) |
| Spain | 419 | 85.20 | 19.73 (3.47) |
| Sweden | 126 | 72.22 | * |
| Switzerland | 447 | 84.34 | 22.28 (4.89) |
| Taiwan | 162 | 76.54 | 19.71 (1.35) |
| Thailand | 188 | 80.32 | 19.24 (1.14) |
| Turkey | 153 | 62.75 | 20.76 (3.52) |
| Ukraine | 243 | 77.37 | 20.60 (1.90) |
| United Kingdom | 136 | 88.97 | 25.64 (8.08) |
| United States | 1360 | 67.72 | 19.85 (3.11) |
| Vietnam | 167 | 77.25 | 19.05 (1.33) |
| **World Sample** | **13,278** | **71.82** | **21.69 (4.52)** |

*Note.* *Due to confidentiality constraints, Sweden does not have age data

185

**Procedure**

187       Each participant received a unique participant ID from a local faculty collaborator and

188 was directed to the study's custom-built website (ispstudy.ucr.edu). They completed informed

189 consent followed by a series of measures assessing their situational experiences, daily behavior,

190 volitional personality change, and ratings of personality traits and other individual differences

191 (e.g., subjective happiness, dispositional optimism). Upon completing the survey, participants

192 had the opportunity to receive feedback on their trait levels based on the personality measure

193 included.

**Materials translation procedure**

195       The content of the website (e.g., consent form, instructions, survey questions) was

196 translated into 42 languages by local collaborators, who are all psychology researchers, and

197 independently back-translated to English. After reviewing the back-translated version of the

198 materials, the ISP project coordinators resolved any discrepancies through consultation with the

199 local collaborators.

200    **Measures**

201         The International Situations Project is a large study that seeks to explore variation and

202    similarity of situational experience and individual differences around the world (Baranski et al.,

203    in press; Lee et al., in press; see https://osf.io/yv2nq/ for a complete list of previous publications)

204    [4]. The measures described below are the ones relevant to the current analyses and are unique to

205    this article.

206         **Volitional personality change (VPC).**  Participants responded "yes" or "no" to "Is there

207    an aspect of your personality that you're currently trying to change?" If they answered in the

208    affirmative, a box opened in which they were asked to report the aspects of their personality they

209    were trying to change, an open-ended format akin to methods used by Baranski et al., 2017. See

210    below for a detailed description of the procedure for coding these open-ended VPC responses.

211         **Personality traits and other individual differences.** Several potentially relevant

212    personality traits and individual differences were also analyzed for this study. As this study was

213    exploratory, we cast a large net in our assessment of the relationship between VPC and

214    individual differences.

215         Personality traits were measured using the 60-item Big Five Inventory 2 (BFI-2; Soto &

216    John, 2017) in which each trait is represented by three facets (four items each). The trait and

217    facets are: extraversion (sociality, assertiveness, energy), agreeableness (trust, respect,

218    compassion), conscientiousness (productiveness, responsibility, organization), negative

219    emotionality (anxiety, depression, emotional volatility), and openness mindedness (intellectual

220    curiosity, creativity, aesthetic appreciation). Participants responded to each item (e.g., "I am

---

[4] See the complete list of International Situations Project (ISP) measures at https://osf.io/enrd4/.

221    someone who is outgoing") on a five-point scale (1 = "Disagree strongly"; 5 = "Agree

222    strongly").

223          Happiness was measured using the Subjective Happiness Scale (SHS; Lyubomirsky &

224    Lepper, 1999) and the Interpersonal Happiness Scale (IHS; Hitokoto & Uchida, 2015). The SHS

225    is a 4-item scale (e.g., "In general, I consider myself"; 1 = "Not of very happy person" to 7 = "A

226    very happy person") and the ISH is a 9-item scale (e.g., "I believe that I and those around me are

227    happy"; 1 = "Strongly disagree" to 5 = "Strongly agree").

228          Participants also completed the 6-item Life Orientation Test (LOT-R; Scheirer, 1995) to

229    assess dispositional optimism (e.g., "In uncertain times, I usually expect the best"; 1 = "Strongly

230    disagree" to 5 = "Strongly agree"), the 10-item Honesty/Humility scale (e.g., "I wouldn't use

231    flattery to get a raise or promotion at work, even if I thought it would succeed"; 1 = "Strongly

232    disagree" to 5 = "Strongly agree") of the HEXACO measure of personality traits (facets:

233    sincerity, fairness, greed, modesty; Ashton, & Lee, 2009), and the Narcissistic Admiration and

234    Rivalry Questionnaire (NARQ; Back et al., 2013) ("I deserve to be seen as a great person"; 1 =

235    "Strongly disagree" to 5 = "Strongly agree").

236          Across all 78 separate data collection sites, 62% of the omega reliability coefficients were

237    above .70 (mean $\Omega$ = .73; SD = .11; range = .27 - .95), indicating homogenous internal

238    consistency across countries. See Supplementary materials at osf.io/enrd4 for means, SDs,

239    intercorrelations, and Omega reliability coefficient for each measure.

240    **Coding of volitional personality change intentions**

241          As stated above, participants reported whether they were currently trying to change their

242    personalities. For participants who answered 'yes', research assistants coded their open-ended

243    answers to the following question, "What aspect of your personality are you currently trying to

244    change?" using 44 binary categories, referring to attempts to increase or decrease each of the Big

245    Five personality traits and their respective facets (40 categories total), as well as increases or

246    decreases of honesty and humility. This method was adapted from Baranski et al., 2017.

247        Three US research assistants independently coded the entirety of participants' responses

248    (translated to English from 41 languages by local collaborators) using a two-step process. In Step

249    1, research assistants coded each response along 12 mutually exclusive categories. Specifically,

250    they determined whether the participant's response indicated an attempt to increase or decrease

251    one of Big Five traits or honesty/humility (example of a response coded as indicating a desire to

252    increase extraversion: "shyness and being unsocial"). In Step 2, the research assistants then

253    coded which of three facets the participant's response best aligned (example of a response coded

254    as indicating an attempt to increase sociability facet: "Poor active communication").

255        Of the 8,204 participants who indicated that they were currently trying to change some

256    aspect of their personalities, 170 did not provide a response when asked to report exactly what

257    they were trying to change. 164 responses were missing due to coding error. For the remaining

258    7,863 participants, we used majority rule to determine the final response ratings (we marked the

259    code a 'hit' if 2 out of 3 coders indicated the response fell into the category, otherwise the

260    response was treated as a 'miss'). If a participant listed more than one VPC intention, only the

261    first one listed was coded[5]. Categories representing attempts to increase or decrease the Big Five

262    personality traits plus honesty and humility captured 88.39% of participants' responses; the

263    remaining responses were either too vague to represent a single category (e.g., "many different

264    things"), were unintelligible or left blank (e.g., "asdflkj"), or expressed desires to change

265    physically or resolve an addiction. Since coders rated each response as adhering to one of 12 trait

---

[5] A relatively small subset of participants reported more than one personality change goal. To ensure analyses were
consistent across participants, we only included the first one listed.

266     categories (step 1), we calculated an estimate of agreement among raters for this single 'trait

267     category' variable. Inter-rater agreement was good ($\kappa$ = .68).

268             See Table 2 for example responses for each trait category and osf.io/enrd4 for data and R

269     script used for all analyses reported below.

Table 2
*Participants' responses of VPC content categories*

| Category | Example responses |
|---|---|
| Inc Extraversion | |
| Sociability | ● shyness<br>● trying to be more outgoing |
| Energy | ● not enthusiastic; too quiet<br>● relative bored in character |
| Assertiveness | ● To manage to impose me and my points of view a bit more at work<br>● More confidence when expressing myself and making decisions |
| Inc Agreeableness | |
| Compassion | ● Putting people before myself<br>● selfishness, stronger sense of self |
| Trust | ● Trusting others<br>● Holding grudges |
| Respect | ● Gossiping<br>● I'd like to be better towards others, and not bitter/sarcastic for no reason |
| Inc Conscientiousness | |
| Organization | ● Disorganized behavior<br>● Careless in time management |
| Productiveness | ● Motivation to study<br>● Trying to be more productive, procrastinating less |
| Responsibility | ● Discipline<br>● My maturity |
| Inc Emotional Stability | |
| Dec Anxiety | ● Trying to be more relaxed when it comes to doing things.<br>● My more emotional/neurotic tendency to get overwhelmed in situations resulting in anxiety |
| Dec Depression | ● My self-esteem: becoming more confident and self-assured<br>● Wish to be more optimistic |
| Dec Emotional Volatility | ● Being less sensitive<br>● I need to change my emotional personality which may easily get upset when challenges are coming. |
| Inc Openness | |

| | |
|---|---|
| Creativity | ● To depersonalize the physical from the mental |
| | ● Dynamism |
| Aesthetic | ● Adventurousness |
| Appreciation | ● Look at the world |
| Intellectual | |
| Curiosity | ● Brainless |
| Inc Honesty | ● NA |
| Inc Humility | ● My egocentricity. |
| | ● Too much pride and little acceptance of criticism |
| Dec Agreeableness | |
| Compassion | ● Weak and incapable of saying no |
| | ● Playful and paid too much attention about others easily |
| Trust | ● Naivety |
| | ● I am trying to be more observant/cautious in relationship with others. |
| Respect | ● Straightforwardness |
| | ● Be possessive, demanding, and dependent |
| Dec Conscientiousness | |
| Productiveness | ● Being too focused on academics that I forgot time for myself and others |
| Responsibility | ● To not overthink everything |
| | ● Overanalyzing things and wanting to control everything |
| Organization | ● To not be such a perfectionist |
| | ● Constant planning |
| Dec Extraversion | |
| Sociability | ● Being too extroverted. |
| | ● Clinginess |
| Energy | ● The loudness of my personality seems to bug some people I live with |
| | ● When I am exited I am really loud so I am trying to be little bit quit. |
| Assertiveness | ● too might |
| | ● overbearing |
| | ● I am trying to cut down on interrupting people while they are talking and on using crutch words |
| Dec Emotional Stability | |
| Inc Anxiety | ● NA |
| Inc Depression | ● Being too carefree and happy |
| | ● to be too much optimistic |
| | ● Over optimism |
| Inc Emotional | ● I want to be more emotional. |
| Volatility | ● Suppression and no expression of emotions |
| Dec Openness | |
| Creativity | ● Being more rational |

| | |
|---|---|
| Aesthetic Appreciation | ● NA |
| Intellectual Curiosity | ● NA |
| Dec Honesty | ● NA |
| Dec Humility | ● NA |
| Physical Change | ● Too weak and delicate |
| | ● Sleeping late at night |
| Resolving Addiction | ● Drinking |
| | ● Drug use (marijuana) |
| Other | ● All of it |
| | ● Negative |

*Note*. Inc = Increase, Dec = Decrease; NA indicates that there were no agreed upon responses that fell in to the category.

270

271                                                            **Analysis**

272

273         Given the substantial discrepancy in sample size across male and female participants, as

274    well as the consistent tendency for female participants to report VPC at higher rates than their

275    male counterparts, all analyses reported below are weighted equally across gender.

276         To supplement the bi-variate correlations reported in the text, we ran a series of logistic

277    multilevel models to understand the relationship between current traits and VPC at the individual

278    level accounting for nesting at the country level. Specifically, we ran the models as specified

279    below for the relationship between the dichotomous VPC variable (i.e., yes or no VPC) and 22

280    current traits (and facets) (e.g., current levels of extraversion predicting VPC).

281         We used the *lme4* R package to estimate the intercepts and slopes for VPC using

282    individual predictors of current personality trait levels accounting for country level variation. For

283    the Level 1 model, VPC was modeled as a function of current traits on the individual level:

284         1.  Level 1 Model: $\text{logit}(VPC_{ij}) = b0_j + b1j\text{Current trait} + r_{ij}$

285    In the Level 2 Model, intercepts and slopes were allowed to differ across countries:

286         2.  Level 2 Model:

287         $b0j = y_{00} + u_{oj}$

288         $b1j = y_{10} + u_{ij}$

289    The entire mixed-model is specified as followed:

290         3.  Mixed Model: $VPC_{ij} = \gamma_{00} + \gamma_{10}(\text{Current trait}) + u_{0j} + u_{1j}(\text{Current trait}) + r_{ij}$

291         To assess whether there was significant variation across countries, we ran a series of

292    model fit comparisons to assess the Chi-square difference between a model which fixes all

293    current trait and VPC trait regression slopes to be equal across countries (Level 1 Model) and a

294    model which allows these relationships to vary by country (Level 2 Model; i.e., the addition of

295    $u_{1j}$ term). These model fit comparisons reveal that for all current trait – dichotomous VPC

296    relationships, the fixed sloped model fitted the data better than the random sloped model,

297    indicating that there was no significant variation across countries in how well an individual's

298    current personality trait level predicted whether they were trying to change any aspect of their

299    personalities.

## Results

**What proportion of college students around the world and across countries are currently**

**trying to change their personality traits?**

303         The majority (60.40%) of college students around the world indicated that they were

304    currently trying to change at least one aspect of their personalities. Countries with the highest

305    percentage of people attempting VPC included Thailand (81.91%), Russia (80.84%), Brazil

306    (78.87%) and Malaysia (77.64%), whereas Kenya (21.41%), Israel (28.21%), Slovakia (43.24%),

307    Hong Kong (46.48%), Turkey (46.39%), and the United States (48.53%) were among the lowest.

308    See Table 3 for a complete list of VPC proportions by gender and country and Figure 1 for a

309    visualization of the variation of country-level VPC percentage around the world.[6]

Table 3
*Percentage of individuals indicating an attempt to change an aspect of their personalities by country and gender (sorted in descending order of All % )*

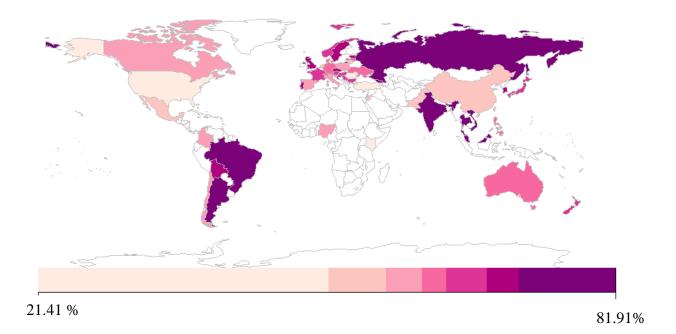| Country | Female % | Male % | All %† |
|---|---|---|---|
| Thailand | 85.43 | 78.38 | 81.91 |
| Russia | 82.26 | 79.41 | 80.84 |
| Brazil | 79.82 | 77.91 | 78.87 |
| Malaysia | 73.46 | 81.82 | 77.64 |
| Georgia | 79.46 | 71.43 | 75.45 |
| India* | 80.91 | 69.37 | 75.14 |
| Vietnam | 79.07 | 65.79 | 72.43 |
| Argentina | 80.91 | 63.33 | 72.12 |
| Czech Republic | 70.51 | 72.97 | 71.74 |
| Estonia | 74.80 | 68.09 | 71.45 |
| Sweden | 75.82 | 65.71 | 70.77 |
| Portugal | 70.80 | 68.42 | 69.61 |
| Bolivia | 75.64 | 63.16 | 69.40 |
| South Korea | 72.56 | 65.81 | 69.19 |
| Croatia | 71.63 | 66.23 | 68.93 |
| Serbia | 65.41 | 72.00 | 68.71 |
| United Kingdom | 63.64 | 73.33 | 68.49 |
| Norway | 63.56 | 73.17 | 68.37 |
| Bulgaria | 70.75 | 65.91 | 68.33 |
| France | 66.15 | 69.70 | 67.93 |
| Hungary | 63.21 | 69.57 | 66.39 |
| Japan | 69.33 | 59.78 | 64.56 |
| New Zealand | 56.76 | 72.22 | 64.49 |
| Austria | 71.74 | 57.14 | 64.44 |
| Latvia | 69.29 | 58.62 | 63.96 |
| Philippines | 62.01 | 65.69 | 63.85 |
| Ukraine* | 72.87 | 54.55 | 63.71 |
| Singapore | 66.98 | 60.00 | 63.49 |
| Switzerland | 63.93 | 62.86 | 63.40 |
| Denmark | 64.62 | 61.22 | 62.92 |
| Germany | 60.70 | 64.60 | 62.65 |
| Australia | 71.81 | 52.08 | 61.95 |
| Canada | 60.67 | 61.90 | 61.29 |
| Spain | 65.83 | 56.45 | 61.14 |
| Nigeria | 62.22 | 59.55 | 60.89 |

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[6] In an effort to help explain cross-country variation in VPC, we ran additional correlational analyses between countries' VPC proportion and several existing country-level variables (e.g., GDP per capita, population density). Please see these analyses in our supplemental materials: osf.io/enrd4.

| | | | |
|---|---|---|---|
| Italy* | 69.11 | 51.18 | 60.15 |
| Chile | 63.53 | 56.59 | 60.06 |
| Colombia | 60.45 | 57.45 | 58.95 |
| Slovenia* | 71.43 | 46.15 | 58.79 |
| Poland | 60.00 | 56.41 | 58.21 |
| Pakistan | 59.65 | 54.39 | 57.02 |
| Taiwan | 63.71 | 50.00 | 56.86 |
| Palestine | 54.07 | 59.18 | 56.63 |
| Mexico | 60.87 | 51.85 | 56.36 |
| China | 57.49 | 52.05 | 54.77 |
| Netherlands* | 46.31 | 62.50 | 54.41 |
| Jordan | 60.53 | 44.44 | 52.49 |
| Lithuania* | 61.95 | 41.94 | 51.95 |
| Macedonia | 45.00 | 57.14 | 51.07 |
| Romania | 47.52 | 50.00 | 48.76 |
| United States | 50.27 | 44.87 | 47.57 |
| Turkey | 54.17 | 38.60 | 46.39 |
| Hong Kong | 48.81 | 43.10 | 45.96 |
| Slovakia | 39.81 | 46.67 | 43.24 |
| Israel | 27.62 | 28.79 | 28.21 |
| Kenya | 21.98 | 20.83 | 21.41 |
| Average (M of %) | 64.09 (*SD* = 12.04) | 59.68 (*SD* = 12.06) | 61.89 (*SD* = 11.69) |
| **World** | **63.56** | **57.23** | **60.40** |

*Note.* Across countries, female participants reported VPC significantly more than their male counterparts, ($t(6,674) = 6.61$, $p < .001$). * Countries with significant gender differences. † Percentages are balanced across gender.

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311

*Figure 1*. Heat map of percentage of college students attempting volitional personality change

**What personality traits and other individual differences are associated with whether one is**

**trying to change *any* personality trait?**

To test the generalizability of research addressing *who* is currently attempting or desiring

personality change, we next assessed which personality traits and other individual differences are

associated with participants' reported attempts to change *any* aspect of their personality traits

(i.e., 'yes' when asked if they are currently trying to change an aspect of their personalities). To

do so, we ran a series of correlations with their current levels of the Big Five traits and

honesty/humility (plus their facets), subjective and interdependent happiness, dispositional

optimism, narcissism, and religiosity.

Table 4
*Correlations between any attempt to change one's personality traits and other individual differences and analysis of variation across countries.*

| | r [99% CI] | $\Delta X^2$ (p-value) |
|---|---|---|
| Extraversion | -.07 [-.11, -.02] | 4.67 (.22) |
| Sociability | -.06 [-.11, -.02] | 3.91 (.41) |
| Assertiveness | -.05 [-.10, -.01] | 3.24 (.20) |
| Energy | -.04 [-.08, .01] | 4.79 (.11) |
| Agreeableness | -.03 [-.07, .02] | 0.59 (.76) |
| Compassion | .03 [-.02, .07] | 1.09 (.60) |
| Respect | -.01 [-.06, .03] | 0.11 (.95) |
| Trust | -.06 [-.11, -.02] | 2.60 (.37) |
| Conscientiousness | -.12 [-.17, -.08] | 2.55 (.30) |
| Organization | -.09 [-.13, -.05] | 2.79 (.37) |
| Productiveness | -.12 [-.16, -.07] | 2.45 (.40) |
| Responsibility | -.11 [-.15, -.06] | 2.90 (.36) |
| Negative Emotion | .24 [.20, .29] | 1.60 (.51) |
| Anxiety | .22 [.18, .26] | 0.77 (.71) |
| Depression | .22 [.17, .26] | 2.36 (.41) |
| Emotional volatility | .18 [.14, .23] | 1.93 (.53) |
| Openness | .14 [.10, .18] | 0.23 (89) |
| Intellectual curiosity | .15 [.11, .19] | 7.07 (.04) |
| Aesthetic appreciation | .14 [.09, .18] | 0.96 (.69) |
| Creativity | .04 [.00, .09] | 1.90 (.49) |
| Honesty | .03 [-.02, .07] | 4.12 (.21) |
| Sincerity | .01 [-.04, .05] | 2.44 (.30) |
| Fairness | .03 [-.01, .07] | 2.61 (.31) |
| Greed | .01 [-.04, .05] | 1.95 (.49) |
| Modesty | .03 [-.02, .07] | 11.54 (.03) |
| Subjective Happiness | -.17 [-.21, -.12] | 9.70 (.02) |
| Interdependent Happiness | -.19 [-.24, -.15] | 4.02 (.14) |
| Optimism | -.07 [-.11, -.02] | 3.51 (.18) |
| Narcissism | -.01 [-.06, .03] | 3.96 (.14) |
| Religiosity | -.02 [-.06, .03] | 14.48 (<.001) |

*Note.* Significant $\Delta X^2$ represents significant variability in the strength of current trait and VPC trait relationships. Correlation coefficients > .03 are significant at the .001 level. *N* = 13,278

324

325        In line with the overarching goal of the current study, we sought to assess which of these

326    relationships are robust and consistent across individuals from an array of cultural backgrounds.

327    When participants are treated as one 'world sample' VPC was positively related to negative

328    emotionality (*r* = .24, 99% CI [.20, .29]), along with all three of its facets and negatively related

329    to both subjective happiness (*r* = -.17, [-.21, -.12]) and interdependent happiness (*r* = -.19, [-.24,
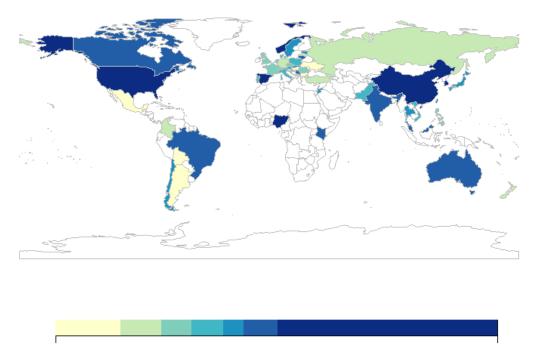
330    -.15]). Finally, in line with our expectations, there was a moderate relationship between VPC and

331    the intellectual curiosity ($r = .15$, [.11, .19]) and aesthetic appreciation facets of openness ($r =$

332    .14, [.09, .18]all $r$'s in this paragraph are $p < .001$). Against our expectations, conscientiousness,

333    narcissism and all other remaining traits were unrelated to VPC. Importantly, virtually none of

334    the relationships between current personality traits and VPC varied significantly in strength

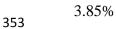335    across countries at the $p < .001$ level (see Table 4).

336         One interesting exception arose to these otherwise consistent patterns. Converse to our

337    expectations, religiosity was virtually unrelated to VPC when all participants were treated as one

338    world sample; however, this relationship varied significantly across countries ($\Delta X^2 = 14.48$, $p <$

339    .001, Table 4). Indeed, VPC was positively related to religiosity in countries such as Slovenia,

340    India, and Malaysia, and negatively related to religiosity in countries such as Macedonia, New

341    Zealand, and Latvia. See the Supplementary Materials at osf.io/enrd4 for VPC-individual

342    difference correlations for each country.

343    **What specific traits are college students around the world currently trying to change?**

344         Across all 56 countries, among students reporting attempted personality change, the most

345    commonly reported personality change attempts were to increase levels of emotional stability

346    (29.73%), conscientiousness (19.71%), extraversion (15.94%) and agreeableness (13.53%) (see

347    Figures 2a-2d for heat map visualizations of country-level variation for attempts to change each

348    trait). Attempts to increase levels of openness, honesty or humility, and attempts to decrease any

349    trait were rare (i.e., less than 2% of responses; see the Supplementary Materials at osf.io/enrd4).

350    For the sake of brevity and relevance, subsequent analyses will only relate to VPC attempts to

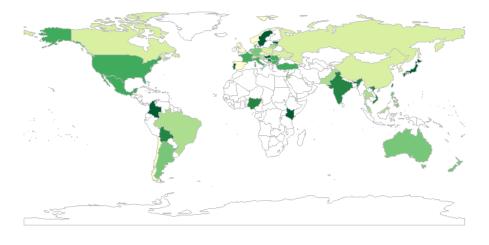351    increase extraversion, agreeableness conscientiousness, and emotional stability.

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*Figure 2a*. Heat map of percentage of college students, among those who are trying to change their personality, who are currently trying to **increase Extraversion** across countries.



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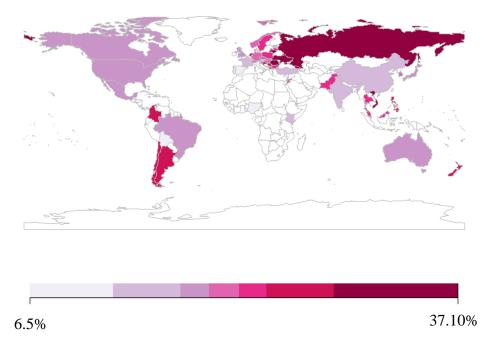
*Figure 2b*. Heat map of percentage of college students, among those who are trying to change their personality, who are currently trying to **increase Agreeableness** across countries.

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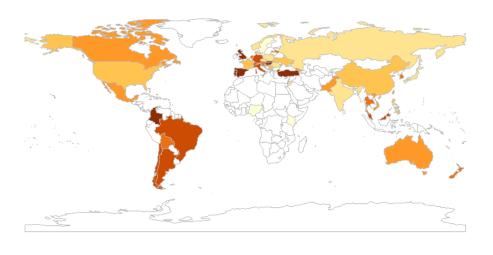361  6.5%                                                37.10%

362  *Figure 2c*. Heat map of percentage of college students, among those who are trying to change
363  their personality, who are currently trying to **increase Conscientiousness** across countries.

364



365  14.70%                                              54.30%

366  *Figure 2d*. Heat map of percentage of college students, among those who are trying to change
367  their personality, who are currently trying to **increase Emotional Stability** across countries.

368

369        Facet level assessment of VPC content revealed a more precise understanding of exactly

370    what college students are trying to change about themselves. For instance, VPC to increase

371    conscientiousness was largely driven by attempts to increase levels of productiveness (54.38% of

372    those with VPC to increase conscientiousness), and VPC to increase levels of extraversion was

373    largely driven by attempts to increase sociability (78.53% of those with VPC to increase

374    extraversion). In contrast, VPC to increase levels of emotional stability was fairly well-

375    distributed among its facets of anxiety, depression and emotional volatility (25.65%, 37.03%,

376    and 30.12%, respectively, of those with VPC to increase emotional stability). See Table 5 for the

377    percentages of responses that fell into categories with the top 10 highest percentages overall.

Table 5
*VPC percentage for the World sample (facets listed as % within respective trait)*

|  | % VPC |
| --- | --- |
| **Inc Extraversion** | **15.94** |
| Inc Sociability | 78.53 |
| Inc Assertiveness | 12.36 |
| Inc Energy | 2.93 |
| **Inc Agreeableness** | **13.53** |
| Inc Compassion | 53.50 |
| Inc Trust | 10.32 |
| Inc Respect | 13.60 |
| **Inc Conscientiousness** | **19.71** |
| Inc Organization | 11.86 |
| Inc Productiveness | 54.38 |
| Inc Responsibility | 27.14 |
| **Inc Emotional Stability** | **29.73** |
| Dec Anxiety | 25.65 |
| Dec Depression | 37.03 |
| Dec Emotional Volatility | 30.12 |
| **Inc Openness** | **1.32** |
| Inc Creativity | 12.60 |
| Inc Aesthetic Appreciation | 33.06 |
| Inc Intellectual Curiosity | 59.10 |

*Note*. Inc = increase, Dec = decrease, $n = 7,863$ ((i.e., those who reported an attempt to change their personalities). With the exception of increased openness, we did not include VPC categories in which less than 5% of responses fell into categories. Facet percentages that do not add up to 100% within each trait indicate that coders did not agree what facet aligned with participants' VPC open-ended responses.

378      **How are attempts to change a *specific* personality trait related to current personality**

379      **traits?**

380              To test the generalizability and robustness of the common VPC finding that desires or

381      attempts to change a particular personality trait are inversely related to current, corresponding

382      traits, we ran a series of correlations testing the relationship between corresponding and non-

383      corresponding current trait and VPC trait pairs. To extend previous VPC research further, we ran

384      these correlations on both trait and facet levels.

385              In line with research limited to US college students (Hudson & Fraley, 2016), when our

386      student participants were treated as one world sample, current personality traits were consistently

387      related to attempts to change corresponding traits in the expected direction. Also, as with

388      previous analyses, looking at these relationships on the facet levels provides a more

389      comprehensive assessment. For extraversion, there were strong, negative relationships between

390      the VPC to increase extraversion and current levels of extraversion ($r = . -.23$, 99% CI [-.29, -

391      .18]), and all three of its facets[7]. Given the large proportion of VPC responses that were coded as

392      sociability, it is unsurprising that this relationship were all driven by VPC to increase sociability

393      ($r = -.22$, [-.28, -.17]. With the exception of the facet responsibility, strong, negative correlations

394      arose between VPC to increase conscientiousness and its facets and current traits and facets

395      levels. The strongest of these relationships were between corresponding current trait/facet and

396      VPC trait/facet pairs. For instance, while the intention to increase levels of productiveness was

397      related to current levels of conscientiousness and all three of its facets, the strongest of these

398      relationships was between the attempt to increase levels of productiveness and current levels of

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[7] Given the large sample size, $r$s > .05 are significant at the .001 level.

399  productiveness ($r = -.16$; [-.21, -.10]). The same pattern was observed for negative emotionality

400  and its facets (i.e., anxiety, depression, and emotional volatility).

401          Importantly, relationships between corresponding current trait/facet and VPC trait/facet

402  pairs were stronger relative to non-corresponding pairs. As an interesting exception, stronger

403  relationships between VPC to increase agreeableness and low levels of extraversion emerged

404  than did corresponding relationships between VPC to increase agreeableness and current

405  agreeableness. It may be the case that the ways in which researchers measure agreeableness and

406  extraversion is different to how college students conceptualize attempts to change these traits.

407  That is, participants may express attempts to be more compassionate or trusting in an effort to

408  make more friends and thus to be more social. Thus, low levels of extraversion may motivate

409  individuals to work towards being more agreeable. See Tables 6a-d for correlations between

410  current personality traits and VPC trait pooled across all samples.

Table 6a
*Correlations between current Extraversion (and facets) and VPC to increase Extraversion (and facets)*

|  | VPC Increase Extraversion | VPC Increase Sociability | VPC to Increase Assertiveness | VPC to Increase Energy |
|---|---|---|---|---|
| Current Extraversion | **-.23 [-.29, -.18]** | **-.22 [-.28, -.17]** | **-.02 [-.08, .04]** | **-.03 [-.09, .03]** |
| Current Sociability | **-.26 [-.31, -.20]** | **-.26 [-.31, -.20]** | **-.03 [-.08, .03]** | **-.03 [-.09, .03]** |
| Current Assertiveness | **-.17 [-.23, -.12]** | **-.16 [-.21, -.10]** | **.00 [-.05, .06]** | **-.05 [-.10, .01]** |
| Current Energy | **-.12 [-.18, -.06]** | **-.11 [-.17, -.06]** | **-.03 [-.09, .02]** | **.00 [-.06, .06]** |
| Current Agreeableness | .05 [.00, .11] | .05 [-.01, .11] | -.01 [-.07, .05] | .04 [-.02, .09] |
| Current Compassion | -.01 [-.07, .04] | -.01 [-.07, .05] | -.01 [-.07, .05] | .02 [-.04, .07] |
| Current Respect | .10 [.04, .16] | .09 [.03, .15] | -.01 [-.07, .05] | .05 [-.01, .10] |
| Current Trust | .04 [-.02, .09] | .02 [-.03, .08] | .01 [-.05, .06] | .03 [-.03, .09] |
| Current Conscientious. | .05 [-.01, .10] | .04 [-.01, .10] | -.01 [-.06, .05] | .02 [-.04, .08] |
| Current Organization | .06 [.00, .12] | .06 [.00, .12] | .00 [-.06, .06] | .02 [-.04, .07] |
| Current Productiveness | .00 [-.05, C.06] | .00 [-.06, .06] | -.01 [-.07, .04] | .02 [-.04, .07] |
| Current Responsibility | .05 [-.01, .10] | .04 [-.01, .10] | .00 [-.06, .06] | .02 [-.04, .07] |
| Current Emotional Stability | -.05 [-.10, .01] | -.02 [-.08, .04] | -.01 [-.07, .05] | -.03 [-.09, .03] |
| Current Anxiety | -.01 [-.07, .05] | .01 [-.05, .07] | -.02 [-.07, .04] | -.01 [-.07, .04] |
| Current Depression | .01 [-.05, .06] | .02 [-.04, .07] | .00 [-.06, .06] | -.01 [-.07, .05] |
| Current Emotional | -.11 [-.16, -.05] | -.08 [-.14, -.02] | -.01 [-.07, .05] | -.05 [-.11, .01] |

*Note*. **Bolded** portion indicated corresponding current trait-VPC trait pairs. *n* = 7,863 (i.e., those who reported an attempt to change their personalities). Due to the high sample size, correlations greater than .06 are significant at the *p* < .001 level.

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Table 6b
*Correlations between current Agreeableness (and facets) and VPC to increase Agreeableness (and facets)*

|  | VPC to Increase Agreeableness | VPC to Increase Compassion | VPC to Increase Respect | VPC to Increase Trust |
|---|---|---|---|---|
| Current Extraversion | .10 [.05, .16] | .06 [.01, .12] | .04 [-.01, .10] | .01 [-.05, .07] |
| Current Sociability | .10 [.04, .16] | .06 [.00, .12] | .05 [-.01, .11] | .01 [-.05, .07] |
| Current Assertiveness | .09 [.04, .15] | .04 [.00, .11] | .03 [-.03, .09] | .02 [-.04, .08] |
| Current Energy | .05 [.00, .11] | .04 [-.02, .10] | .02 [-.04, .08] | .01 [-.06, .05] |
| Current Agreeableness | **-.08 [-.14, -.03]** | **-.05 [-.01, .01]** | **-.04 [-.10, .02]** | **-.04 [-.09, .02]** |
| Current Compassion | **-.05 [-.11, .01]** | **-.04 [-.02, .02]** | **-.02 [-.08, .03]** | **-.01 [-.06, .05]** |
| Current Respect | **-.09 [-.15, -.03]** | **-.05 [-.02, .01]** | **-.05 [-.11, .00]** | **-.02 [-.08, .04]** |
| Current Trust | **-.06 [-.12, -.01]** | **-.03 [-.02, .02]** | **-.02 [-.08, .04]** | **-.06 [-.11, .00]** |
| Current Conscientious. | .04 [-.02, .09] | .04 [-.03, .09] | -.01 [-.06, .05] | .01 [-.05, .07] |
| Current Organization | .03 [-.03, .09] | .02 [-.04, .08] | -.01 [-.06, .05] | .02 [-.04, .06] |
| Current Productiveness | .05 [.00, .11] | .06 [-.02, .11] | .00 [-.06, .075 | .01 [-.05, .07] |
| Current Responsibility | .00 [-.05, .06] | .01 [-.04, .077 | .00 [-.06, .06] | .00 [-.06, .06] |
| Current Emotional Stability | -.04 [-.09, .02] | -.04 [-.08, .01] | .01 [-.06, .05] | .01 [-.05, .06] |
| Current Anxiety | -.05 [-.11, .01] | -.05 [-.06, .01] | .01 [-.06, .05] | .00 [-.05, .06] |
| Current Depression | -.05 [-.11, .01] | -.05 [-.08, .00] | .01 [-.07, .04] | .01 [-.04, .07] |
| Current Emotional | .01 [-.05, .06] | -.01 [-.06, .05] | .00 [-.05, .06] | .00 [-.06, .06] |

*Note*. *Note*. **Bolded** portion indicated corresponding current trait-VPC trait pairs. *n* = 7,863 (i.e., those who reported an attempt to change their personalities). Due to the high sample size, correlations greater than .06 are significant at the *p* < .001 level.

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Table 6c
*Correlations between current Conscientiousness (and facets) and VPC to increase Conscientiousness (and facets)*

|  | VPC to Increase Conscientiousness | VPC to Increase Organization | VPC to Increase Productiveness | VPC to Increase Responsibility |
|---|---|---|---|---|
| Current Extraversion | .05 [-.01, .11] | .03 [-.02, .09] | .00 [-.06, .06] | .05 [.00, .11] |
| Current Sociability | .08 [.03, .14] | .05 [-.01, .11] | .03 [-.03, .09] | .06 [.00, .12] |
| Current Assertiveness | .02 [-.04, .07] | .02 [-.04, .08] | -.01 [-.07, .05] | .03 [-.03, .09] |
| Current Energy | .01 [-.05, .06] | .01 [-.05, .07] | -.03 [-.09, .03] | .04 [-.02, .10] |
| Current Agreeableness | .00 [-.06, .05] | .04 [-.02, .10] | -.03 [-.08, .03] | -.01 [-.06, .05] |
| Current Compassion | -.03 [-.08, .03] | .03 [-.03, .08] | -.04 [-.10, .02] | -.01 [-.07, .04] |
| Current Respect | -.04 [-.09, .02] | .02 [-.03, .08] | -.04 [-.10, .02] | -.02 [-.08, .03] |
| Current Trust | .04 [-.02, .10] | .05 [-.01, .11] | .01 [-.05, .07] | .01 [-.04, .07] |

| | | | |
|---|---|---|---|
| Current Conscientious. | **-.16 [-.22, -.11]** | **-.07 [-.12, -.01]** | **-.16 [-.21, -.10]** | **-.02 [-.08, .04]** |
| Current Organization | **-.14 [-.20, -.08]** | **-.08 [-.13, -.02]** | **-.12 [-.18, -.07]** | **-.02 [-.08, .04]** |
| Current Productiveness | **-.14 [-.20, -.09]** | **-.05 [-.11, .01]** | **-.16 [-.21, -.10]** | **-.01 [-.06, .05]** |
| Current Responsibility | **-.11 [-.17, -.06]** | **-.03 [-.09, .02]** | **-.1.00 [-.16, -.05]** | **-.03 [-.09, .03]** |
| Current Emotional Stability | -.09 [-.15, -.04] | -.05 [-.10, .01] | -.07 [-.13, -.01] | -.04 [-.09, .02] |
| Current Anxiety | -.09 [-.15, -.04] | -.04 [-.09, .02] | -.07 [-.12, -.01] | -.04 [-.10, .02] |
| Current Depression | -.09 [-.15, -.03] | -.06 [-.11, .00] | -.05 [-.11, .01] | -.05 [-.10, .01] |
| Current Emotional | -.06 [-.11, .00] | -.02 [-.08, .04] | -.06 [-.11, .00] | .00 [-.06, .05] |

*Note*. *Note*. **Bolded** portion indicated corresponding current trait-VPC trait pairs. *n* = 8, *n* = 7,863 (i.e., those who reported an attempt to change their personalities). Due to the high sample size, correlations greater than .06 are significant at the *p* < .001 level.

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Table 6d

Correlations between current Emotional Stability (and facets) and VPC to decrease Negative Emotionality (and facets)

| | VPC to Decrease Negative Emotionality | VPC to Decrease Anxiety | VPC to Decrease Depression | VPC to Decrease Emotionality |
|---|---|---|---|---|
| Current Extraversion | .02 [-.04, .08] | .02 [-.04, .08] | -.04 [-.10, .01] | .06 [.00, .12] |
| Current Sociability | .02 [-.04, .07] | .01 [-.05, .06] | -.03 [-.09, .03] | .05 [-.01, .11] |
| Current Assertiveness | .01 [-.05, .07] | .02 [-.04, .07] | -.03 [-.09, .03] | .04 [-.02, .10] |
| Current Energy | .01 [-.04, .07] | .03 [-.03, .09] | -.05 [-.11, .01] | .06 [.00, .11] |
| Current Agreeableness | .00 [-.06, .06] | .02 [-.03, .08] | .02 [-.04, .07] | -.03 [-.09, .02] |
| Current Compassion | .05 [-.01, .11] | .05 [-.01, .11] | .03 [-.03, .09] | .00 [-.06, .06] |
| Current Respect | .00 [-.06, .05] | .03 [-.03, .08] | .02 [-.03, .08] | -.05 [-.11, .01] |
| Current Trust | -.03 [-.09, .02] | -.01 [-.07, .05] | -.01 [-.07, .05] | -.02 [-.08, .04] |
| Current Conscientious. | .04 [-.02, .10] | .06 [.01, .12] | -.02 [-.08, .04] | .02 [-.04, .07] |
| Current Organization | .02 [-.03, .08] | .06 [.00, .12] | -.03 [-.09, .03] | .00 [-.06, .06] |
| Current Productiveness | .04 [-.02, .10] | .05 [-.01, .11] | -.03 [-.08, .03] | .04 [-.02, .10] |
| Current Responsibility | .03 [-.03, .09] | .04 [-.02, .10] | .01 [-.05, .06] | .00 [-.06, .06] |
| Current Emotional Stability | **.19 [.14, .25]** | **.11 [.06, .17]** | **.09 [.03, .14]** | **.09 [.03, .14]** |
| Current Anxiety | **.17 [.12, .23]** | **.15 [.09, .21]** | **.07 [.01, .12]** | **.05 [-.01, .11]** |
| Current Depression | **.15 [.09, .2]** | **.07 [.01, .13]** | **.11 [.05, .17]** | **.03 [-.03, .09]** |
| Current Emotional | **.17 [.11, .22]** | **.07 [.01, .13]** | **.04 [-.02, .10]** | **.14 [.08, .20]** |

*Note*. *Note*. **Bolded** portion indicated corresponding current trait-VPC trait pairs; *n* = 7,863 (i.e., those who reported an attempt to change their personalities). Due to the high sample size, correlations greater than .06 are significant at the *p* < .001 level.

417

418        A few notable exceptions were found to the above relationships. In countries such as

419   Slovakia and Germany, attempts to change specific personality traits were unrelated or even

420    slightly positively related to current, corresponding trait levels (see Supplementary Materials on

421    osf.io/enrd4 for these relationships on the country level).

422                                                    **Discussion**

423           Across 56 countries, 60.40% of college student participants reported that they are

424    currently trying to change an aspect of their personalities. The sheer frequency of this goal

425    around the world is notable in and of itself. Only nine countries had percentages lower than 50%

426    (see Table 3). Nevertheless, there was substantial variation across countries, ranging from

427    81.91% (Thailand) to 21.41% (Kenya), and it is notable that the United States, the site of almost

428    all previous research on this topic, had an unusually low percentage of people seeking to change

429    their personalities (48.53%).

430           To explore the marked variation in VPC across countries, we ran supplementary analyses

431    relating countries' VPC proportion with 35 existing country-level variables (e.g., GDP per

432    capita, population density, individualism; see Supplementary Materials for a description of all

433    country-level variables used in these analyses). We explored this question of country-level

434    indicators predicting country-level VPC by (1) correlating country-level variables and VPC

435    proportion, and (2) running a series of multi-level models predicting individual-level VPC from

436    country-level indicators with accounting for country-level nesting. Of 35 potential correlates,

437    none crossed the $p < .01$ threshold used throughout this study. Of 35 MLM models, only

438    subjective health predicted VPC at the $p < .01$ level indicating that in countries with low

439    subjective health, college students tend to report changing their personality traits, perhaps

440    because cultural-level health serves as a reminder that personal change is warranted.

441           This relative lack of consistent country-level explanation for the variability of VPC may

442    underscore the importance of internal and personal factors (e.g., individuals' happiness) rather

443    than external, country-level economic, social, or value factors in influencing whether someone is

444    trying to change their personalities. See Table 1 of Supplementary Materials located at

445    osf.io/enrd4/).

446         An alternative explanation for country variation in VPC is that mean-level country

447    differences in known correlates of VPC (i.e., subjective happiness, interdependent happiness,

448    negative emotionality, openness) are driving variation in VPC across countries. To explore this

449    possibility, we ran a series of model fit comparisons to test whether country-level differences in

450    the relationships between VPC and happiness, negative emotionality, and openness are

451    accounted for by individual-level relationships. Specifically, we compared models in which

452    mean country-level variables predict VPC with models in which both mean country-level and

453    individual-level variables predict VPC. Results indicate that for all four variables, there were

454    significant model fit comparison indicating that models with both country-level and individual-

455    level predictors fit the data better than those with only country-level predictors. These results

456    suggest that while mean level differences in country-level subjective happiness, for instance,

457    predict VPC, an individuals' level of subjective happiness significantly contributes to this

458    relationship. In other words, country-level variability in VPC is not entirely the bi-product of

459    country mean-level differences in known correlates of VPC. Moreover, for subjective happiness

460    and negative emotionality, there is a significant interaction between mean country-level and

461    individual level factors suggesting  that the relationship between subjective happiness and

462    negative emotionality are stronger in countries with higher mean-levels of these variables. These

463    results indicate that unhappy people, for instance, are motivated to change their personalities,

464    especially when people in their cultural context are also unhappy (See Table 2 in the

465    Supplementary Materials located at osf.io/enrd4/).

466        In the majority of countries (39 of 56), female participants reported personality change

467    attempts at a higher rate than their male counterparts. Despite this consistent trend, women were

468    only *significantly* more likely to report personality change attempts in five countries (see Table

469    3). Moreover, men reported change attempts at a higher rate than women in only one country

470    (The Netherlands).

471        Overall, the majority of participants around the world indicated that they were trying to

472    change their personalities, in almost all cases to be either more emotionally stable, conscientious,

473    extraverted or agreeable. Similar to Robinson et al. (2015), increased emotional stability was the

474    most frequently targeted trait across the vast majority of countries. Another internationally

475    consistent finding was that individuals who scored high in traits generally considered

476    maladaptive, such as negative emotionality and its facets anxiety, depression and emotional

477    volatility, and those lower in happiness were more likely to report attempting to change their

478    personality (i.e., answering "yes" to the VPC question). We observed some indication that

479    individuals high in openness (driven by intellectual curiosity) were likely to report attempting

480    personality change, although this relationship varied somewhat across countries, it was relatively

481    small, and thus should be replicated. Putting these findings together, it appears to be that open-

482    minded individuals who think deeply about their own maladaptive traits and difficulties in

483    general well-being may be the ones most likely to make active efforts towards changing their

484    personalities, in an attempt at emotional self-improvement. It might also be the case that

485    individuals high in openness to experience have a predisposition to explore new ways to improve

486    themselves even in the absence of low levels of wellbeing or emotional stability. To test this

487    possibility, we ran a generalized linear-regression model predicting whether individuals report

488    changing *any* trait, from the interaction between negative emotionality and openness. Results

489    from these follow-up analyses reveal that for individuals with higher levels of openness, the

490    relationship between negative emotionality and VPC is stronger relative to those with lower

491    levels of openness ($B = .10$, $p = .03$). The same pattern was not observed when predicting VPC

492    from the interaction between subjective happiness and openness ($B = .006$, $p = .83$). It should be

493    noted that the significant interaction effect reported above is relatively small and should be

494    interpreted with caution and replicated in future VPC investigations.

495        While the direction of the relationship between interdependent happiness and VPC was

496    consistent across the vast majority of countries, the strength of the relationships did vary

497    somewhat. For instance, in Australia and Slovenia the relationship between current levels of

498    agreeableness and VPC was strongly positive, in Macedonia and Greece it was strongly negative,

499    and in the majority of countries (e.g., Georgia, Spain, Canada), it was near zero. Likewise, while

500    the average relationship between religiosity and VPC was close to zero, in countries like

501    Macedonia and Latvia, the relationship was strongly negative and in countries like India and the

502    Czech Republic, the relationship was strongly positive. Indeed, in the case with religiosity, there

503    was significant variation across countries in its relationship with VPC. This lack of consistency

504    in the relationship between some individual differences and VPC highlights the cross-cultural

505    variation present in the volitional personality change process and underscores the importance of

506    investigating mechanisms of personality change outside a single country.

507        We next assessed the relationship between current personality traits and *specific*

508    volitional personality change attempts. Conceptually replicating previous research, when all

509    participants were treated as one world sample, current levels of extraversion, conscientiousness

510    and negative emotionality are all strongly related to their corresponding VPC trait attempts. For

511    instance, individuals with low levels of extraversion tended to report that they were currently

512    trying to increase levels of extraversion (primarily driven by attempts to increase levels of

513    sociability). Additionally, with the exception of Emotional Stability, these relationships were

514    driven primarily by one facet, such as sociability for extraversion and productivity for

515    conscientiousness.

516    **Increasing the generalizability of volitional personality change**

517         The greatest contribution of the current study might be its generalization of previously

518    reported correlates of VPC effects outside the US. Specifically, when participants are treated as

519    one world sample, findings from this study overlap considerably from that of previous research

520    conducted in the US (Hudson & Roberts, 2016, Baranski et al. 2017, 2020). However, comparing

521    trends within the US data against other countries illuminates the value of this endeavor. For

522    instance, the US was among the lowest in the percentage of individuals indicating a current

523    attempt to change their personalities. In fact, the United States was one of only seven countries

524    with volitional change percentages below 50%. Moreover, the US was in the top five countries

525    with percentages of attempts to increase extraversion and in bottom ten countries with

526    percentages of attempts to increase emotional stability. Finally, previous research, with samples

527    from the US, has demonstrated the tendency for current levels of agreeableness to be *unrelated*

528    to attempts or desires to increase agreeableness (Baranski et al., 2017; Baranski et al., 2020). In

529    the current study, we again observe this trend in the US, however in over a dozen other countries

530    there was a strong, inverse relationship between current levels and attempts to increase

531    agreeableness. Thus, in several instances, the US is more an exception than the norm, and the

532    disproportionate reliance on US samples in psychological research risks seriously

533    mischaracterizing the mechanisms of VPC among, perhaps, other psychological phenomena.

534        That said, the current research does support the generalization of several other

535    associations with VPC. First and foremost, the majority of individuals in the 56 countries

536    included in the current study indicated that they are currently attempting to change some aspect

537    of their personalities. Most commonly, students are trying to increase emotional stability,

538    extraversion, conscientiousness and agreeableness. Finally, our world sample replicated the trend

539    for individuals to desire or actively attempt to increase the socially desirable traits in which they

540    perceived themselves lacking. Thus, despite differences in traditions, customs, and values, these

541    previously reported correlates of VPC are consistent around the world. Taken together, the

542    current project both cautions against the reliance on strictly US samples in assessing volitional

543    personality change, and successfully generalizes many of the previously reported effects to

544    individuals across 56 countries (see Heine et al., 2006).

545    **Limitations and future directions**

546        The current study is the first to assess VPC in students across dozens of countries around

547    the world. But it is not without its limitations. First and foremost, while participants were

548    sampled from a large number of countries across 6 continents, the relatively small samples sizes

549    within some countries limit the extent to which we can generalize our findings to everyone

550    residing in each country. Thus, we caution readers in over-interpreting between-country

551    differences. Relatedly, all 56 country samples involved college community participants, and

552    most of them female. Importantly, exclusive use of college samples effectively controls for

553    various social and demographic factors and assesses individuals during a particularly

554    transformative time in their lives that may be especially prone to active efforts towards self-

555    improvements. It does, however, also limit the degree to which we can generalize our findings

556    outside educated populations. Moreover, while previous work has found that VPC goals were not

557    impacted by age (Baranski et al., 2017; Hudson & Fraley, 2016), students' self-improvement

558    goals and motivations may be more distinct from adults in some countries compared to others.

559    Future work should assess differences in VPC across various age groups by including

560    community samples across various countries.

561          A second limitation is the scope by which VPC was assessed. Only two questions (e.g.,

562    "Are you currently trying to change an aspect of your personality?", and for those who answered

563    in the affirmative, "What are you trying to change?") measured this complex psychological

564    concept. It might be important, for instance, to know how participants feel about their personality

565    change goal (e.g., Do they think it is attainable? How long have they been working towards

566    accomplishing this goal?), why they are trying to change their personalities, and in what social

567    context their personality change goal is most relevant. Future work should seek to understand

568    country variation in the motivation for and conceptualization of VPC by incorporating deeper

569    assessments. Relatedly, our reliance on  yes/no open-ended questions may limit our ability to

570    distinguish the strength of the pursuit towards volitional personality change. Future research

571    should use a combination of open-ended and Likert-type measurements to provide a more

572    comprehensive assessment of volitional personality change, although researchers should be

573    careful in light of known cultural response biases of Likert-type scales Heine et al., 2002,

574    Johnson et al, 2005; Smith et al., 2016).

575          Next, future longitudinal assessments of VPC across countries are important for two

576    reasons. First, while investigations of personality development using longitudinal designs have

577    become relatively common in the US (Roberts & Mroczek, 2008; Roberts et al., 2006; Robins et

578    al., 2001), there are very few studies in which longitudinal assessment is conducted across

579    various countries. Secondly, in the context of understanding more about the individual's active

580    effort towards personality change, it is imperative to assess whether they are more or less

581    successful in their pursuit and whether this success varies across countries. It may be the case,

582    for instance, that particular aspects of one's culture facilitates or impedes progress towards

583    desired personality change. The present study did not find it feasible to seek repeated

584    measurements of the same individuals in 56 countries, but future studies should seek to do so.

585        A final limitation of the current study is its reliance on self-report measures. Self-report

586    measures are useful in tapping the internal qualities of individuals and have relatively low cost.

587    However, future research in VPC should combine self-report methods with measurement tools

588    that assess personality change attempts as they pertain to individuals' observed behavior in

589    everyday life (see Steiner et al., 2020).

590                                        **General conclusions**

591        Across 56 countries, the similarities in VPC around the world are robust. The majority of

592    college students from the majority of countries indicated that they are currently trying to change

593    their personalities, and their specific attempts are related to traits they currently lack. This

594    widespread motivation underscores what may be a nearly universal human drive towards self-

595    improvement. Furthermore, we are beginning to uncover the personality profile of college

596    students who are actively seeking personality change. Specifically, those students who reported

597    higher levels of negative emotionality, lower happiness and high openness were the most likely

598    to report attempting personality change. College students around the world tended to seek to

599    increase aspects of themselves that they lack. Despite many social, political, and religious

600    differences around the world, the current project suggests that a basic human drive towards

601    adaptive personality change is nearly universal.

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