ORIGINAL ARTICLE

# Individual differences and personality traits across situations

Julian A. Nasello D<sup>1,2·A,B,C,D,E,F</sup>, Jean-Marc Triffaux D<sup>1,3·D,E</sup>, Michel Hansenne D<sup>4·A,C,D,E,F</sup>

1: Psychosomatic Medicine and Group Psychotherapy, Psychiatric Day Hospital "La Clé", Liège, Belgium

2: Department of Psychology, University of Liège, Liège, Belgium

3: Department of Psychiatry, Medical Psychology, University of Liège, CHU of Liège, Belgium

4: Department of Psychology, Psychology & Neuroscience of Cognition Research Unit, University of Liège, Liège, Belgium

#### BACKGROUND

According to the Big Five theory, personality can be classified into five traits (i.e., extraversion, neuroticism, conscientiousness, agreeableness, and openness), and past research showed that situations impact personality. In the present study, (1) we measured which of these five personality traits changed according to different situations and (2) tested whether the across-situation variability (ASV; i.e., a continuous variable showing how much people change their personality traits according to situations) was significantly connected with specific personality domains, revealing a potential marker of personality disturbance.

#### PARTICIPANTS AND PROCEDURE

We recruited 80 participants (40 women) to complete the five situation-version (family, work, friends, romantic partner, and hobbies/leisure) of the Big Five Inventory to measure whether personality traits significantly changed across these situations. In addition, we ran a network analysis to reveal how the ASV is related to personality traits.

#### RESULTS

The findings showed that all traits significantly changed across the situations, except openness, which remained stable. The network analysis revealed that the ASV variable was especially connected with conscientiousness (in romantic partner and family situations).

#### CONCLUSIONS

Most personality traits were flexible, showing how important it is to consider the role of situations in the study of personality. Openness appeared to be particularly stable and understanding its nature represents a challenge for future studies. Finally, the network analysis demonstrated that the ASV shows specific connections with conscientiousness and might be a potential psychopathology marker.

#### KEY WORDS

personality; individual differences; situation; Big Five; social psychology

CORRESPONDING AUTHOR – Julian A. Nasello, Department of Psychology, University of Liège, Place des Orateurs 2, 4000 Liège, Belgium, e-mail: julian.nasello@gmail.com

AUTHORS' CONTRIBUTION – A: Study design · B: Data collection · C: Statistical analysis · D: Data interpretation · E: Manuscript preparation · F: Literature search · G: Funds collection

TO CITE THIS ARTICLE – Nasello, J. A., Triffaux, J. M., & Hansenne, M. (2023). Individual differences and personality traits across situations. *Current Issues in Personality Psychology.* 

Received 20.04.2022 · reviewed 08.06.2022 · Accepted 26.01.2023 · published 22.03.2023

#### BACKGROUND

Personality has been defined as "the dynamic organization within the individual of the psychobiological systems that modulate his or her unique adaptations to a changing internal and external environment" (Cloninger & Svrakic, 2016, p. 538), and several authors have demonstrated that personality traits are stable across age (Allport & Odbert, 1936; Donnellan & Lucas, 2008; McCrae et al., 2005; Mroczek & Spiro, 2003; Roberts & DelVecchio, 2000; Roberts et al., 2006; Soto et al., 2011). With this meaning, some authors also refer to *ipsative* stability, which is the trait configuration continuity within the individual, providing information on the patterning of traits within a person across time (De Fruyt et al., 2006; Terracciano et al., 2010).

# MEAN-LEVEL AND RANK-ORDER STABILITY

A crucial distinction concerning the stability of personality traits is the difference made between *mean-level stability* and *rank-order stability* (Donnellan & Lucas, 2008; McCrae et al., 2005; Mroczek & Spiro, 2003; Roberts & DelVecchio, 2000; Roberts et al., 2006; Soto et al., 2011; Terracciano et al., 2010; Twenge, 2001; Twenge & Campbell, 2008). The former refers to the amount of change in absolute levels of personality traits over time or age. For instance, if everyone in a community displays increasing agreeableness with age, we would see increases in individual agreeableness levels and the mean level across the population (Edmonds & Hill, 2020).

On the other hand, rank-order stability corresponds to a correlation between personality traits at two points in time (at least): a decrease in correlational magnitude reveals substantial changes in a personality trait and an increase reveals higher stability levels. For example, from a developmental perspective, Specht et al. (2014) observed significant personality changes in young children and adolescents (i.e., the correlational magnitude is smaller during these life periods). Later, personality becomes quite stable in adults and finally turns out to be changeable again in older adults. In other words, the correlational magnitude of personality traits is smaller in young children and adolescents, increases in adulthood, and becomes again smaller in older adults (see also Roberts & DelVecchio, 2000).

Closely related to the above, a meta-analysis showed that all personality traits demonstrated small mean-level changes at all points in the lifespan, suggesting that there is no specific moment when personality traits stop changing (Roberts et al., 2006). In a recent 50-year longitudinal study, Damian et al. (2019) found average rank-order stability across 50 years of .31; in parallel, about 98% of participants showed reliable changes. Therefore, most people showed reliable changes in one or more personality traits, but it appears that people change differently despite some normative trends.

# SITUATION AND PERSONALITY

Fifty years ago, Mischel (1969) challenged the stability of personality traits across situations, and since then, authors have claimed that it is important to consider the situation to achieve the most accurate prediction of human behavior (Funder, 2006; Ziegler & Horstmann, 2015). Indeed, the situation in which the person lives and evolves plays a significant role in behaviors.

Models such as the DIAMONDS (Rauthmann et al., 2014), the Situation Five (Ziegler et al., 2019), or the CAPTION (Parrigon et al., 2017) frameworks gave a specific role to the situation and showed that it predicts a broad range of psychological outcomes, including personality expression. More particularly, situations are critical when assessing personality (Rauthmann et al., 2014; Ziegler et al., 2019). Another study showed that romantic relationships and work induce personality changes (Bleidorn et al., 2018): significant changes were found in neuroticism and extraversion in the romantic relationship situation and significant changes in agreeableness, conscientiousness, openness, and neuroticism at work.

Therefore, overall, we can consider that a *situation* is an environmental setting through which the person interacts, and specific cues present in this situation might produce personality changes.

#### **OBJECTIVES**

Whereas many studies focus on personality stability (Robert & DelVecchio, 2000; Roberts et al., 2006; Soto et al., 2011; Terracciano et al., 2010), only sparse works demonstrate significant personality changes across situations. Therefore, the present study has a primary objective: investigating whether personality (assessed by the Big Five Inventory) significantly changes according to five major situations of life (i.e., work, family, friends, romantic partner, and leisure/ hobbies).

As mentioned, Bleidorn et al. (2018) found significant changes in neuroticism and extraversion in the romantic relationship situation and significant changes in agreeableness, conscientiousness, openness, and neuroticism at work. Therefore, we hypothesize that similar findings will be obtained for those two situations.

Furthermore, there are many occupational settings, ranging from industrial and organizational to clinical psychology, in which there is strong interest in distinguishing some personality profiles, e.g. in recruitment (Childs et al., 2017) or for adapting support and therapy for patients who have personality disorders (Clark et al., 2020). Therefore, we created a new continuous across-situation variability (ASV) variable thanks to our five-situation design. While low ASV refers to people presenting low across-situation variability levels of personality traits, high ASV describes people presenting high across-situation variability levels. This first investigation will reveal that ASV might offer a new understanding of interindividual differences in personality expression. Hence, as a second objective, we aim to explore whether the ASV exhibits significant relations with personality traits.

## PARTICIPANTS AND PROCEDURE

#### PARTICIPANTS

Eighty subjects (40 women and 40 men) voluntarily participated in the study. Participants were recruited online and through advertisements. All participants gave their consent to be included in the study.

The mean age of participants was 24.40 years (SD = 2.73). Our sample was composed of 36 undergraduate students ( $M_{age} = 23.00$ ,  $SD_{age} = 2.41$ ) and 44 workers ( $M_{age} = 25.50$ ,  $SD_{age} = 2.46$ ), most of whom were European (99%). 39% of our participants were financially independent and described their perceived socioeconomic status as "average" (54%). Those who were not financially independent reported their perceived parents' socioeconomic status and described it mostly as "average" as well (62.5%). None of the participants self-reported any psychiatric or neurological histories.

Concerning the main analysis (MANOVA),  $G^*Power 3.1.9.7$  (Faul et al., 2007) determined that to achieve a power of 0.80 with an  $\alpha$ -error of 0.05 and an estimated effect size of 0.25, we would require at least 45 participants.

### MATERIALS

Situations. The five situations were developed from a pilot experiment where twenty participants were invited to report a list of the five most frequent situations they experienced in life. We collected all participants' responses and classified those according to five supra-categories (i.e., work, family, friends, significant others, and hobbies/leisure). Here are examples of situations described by participants: "I often spend time with my family by watching a movie" was defined as a family situation, or "Most of the time, I am at work" was defined as a work situation.

Personality assessment. We based our experiment on the Big Five Inventory (BFI; John et al., 1991; French version: Plaisant et al., 2010), a briefer version (45 items) of the NEO-PI-R (Costa & McCrae, 1992), to assess personality across the five situations. The BFI assesses five personality domains (i.e., extraversion, agreeableness, conscientiousness, neuroticism, and openness). In the present study, we created five versions of the BFI, one for each situation (see Table S1 in Supplementary materials), used a 7-point Likert scale to get a larger range of the data, and calculated mean scores for each domain.

#### PROCEDURE

All participants received a brief situation description and were invited to answer all questions according to this situation: all items displayed an introductory sentence related to their situation (e.g., work<sup>1</sup>; item 1: "When I am at work, I see myself as someone who... 1. ...is talkative"; item 2: "When I am at work, I see myself as someone who... 2. ...tends to find fault with others"; see Supplementary materials for more information). Cronbach's alphas were  $\geq$  .75 for the five-situation version (see Table S2 in Supplementary materials). All five questionnaires were distributed randomly, with an interval of 5 to 7 days between successive questionnaires (see Figure S1 in Supplementary materials).

#### STATISTICAL ANALYSES

A repeated measures MANOVA with five situations (within-factor) and five domains (between-factor) was performed to determine whether significant personality changes occur according to the five situations. Due to significant sphericity indices, we ran all MANOVA analyses by performing the Greenhouse-Geisser correction. Tukey's post hoc analyses tested the Situations x Dimensions comparisons. In addition, intra-domain Spearman's correlations across situations were run to investigate the rankorder stability of domains between situations. We also ran a network analysis to identify whether the ASV<sup>2</sup> showed significant associations with personality traits.

A network analysis was performed on the 25 personality and ASV variables. This analysis creates a graphical representation of the interconnections between all these variables. All variables are depicted as nodes, and the relations are represented as edges (lines) that can be seen as predictors (the larger the edge, the stronger the predictor). In addition, edges represent the partial correlations between two nodes after controlling all other nodes. We applied the Least Absolute Shrinkage and Selection Operator (LASSO) to reduce the number of false-positive edges, producing replicable and interpretable results (Epskamp et al., 2018). This technique creates a conservative model because small or unstable correlations are estimated as zero. In addition, the Extended Bayesian Information Criterion (EBIC) was applied to reveal the true network structure (Foygel & Drton, 2010). Finally, we estimated 95% confidence intervals of the edge weight through bootstrapping (1000 bootstraps), empowering the results' consistency and replicability.

All statistical analyses were performed using JASP (version 0.16.3.0; JASP Team, 2022; van Doorn et al., 2021), which is software based on the network modules in the *bootnet* (Epskamp et al., 2017) and *qgraph* (Epskamp et al., 2012) packages of R (R Core Team, 2017).

#### RESULTS

#### THE BIG FIVE ACROSS THE FIVE SITUATIONS3

As expected, the repeated-measures MANOVA showed a significant Domains x Situations interaction  $(F(10, 46) = 14.60; p < .001; \eta_p^2 = .16; \text{see Tables S3 and S4} in Supplementary materials).$ 

Tukey's post hoc analyses performed on the interaction between Domains and Situations (see Figure 1) showed that levels of extraversion significantly differed between work and family, work and friends, work and romantic partner, and work and hobbies ( $ps \le .010$ ): the lowest levels of extraversion were found in the work situation. Levels of agreeableness significantly differed between work and family and family and hobbies (ps = .009). No significant difference in agreeableness was found between the romantic partner and hobbies situations (p = .063). Levels of conscientiousness significantly differed between work and family, work and romantic partner, family and hobbies, romantic partner and hobbies ( $ps \le .002$ ), work and friends, and family and friends ( $ps \le .05$ ). Finally, levels of neuroticism significantly differed between work and friends; work and hobbies; friends and romantic partner; and hobbies and romantic partner ( $ps \le .005$ ). No significant differences were found in openness between all situations.

#### INTRA-DOMAIN CORRELATIONS

We found strong intra-domain Spearman's correlations for all domains (see Table S4 in Supplementary materials): agreeableness (mean r = .64), extraversion (mean r = .64), conscientiousness (mean r = .67), neuroticism (mean r = .61), and openness (mean r = .76). Significant correlations were also found between ASV and extraversion at work (r = -.33) and in family situations (r = -.28); ASV and neuroticism at work (r = .35); and ASV and conscientiousness in family situations (r = -.35), with friends (r = -.30), and with a romantic partner (r = -.42).

#### NETWORK ANALYSIS

The network model is stable, showing interpretable and replicable findings (see Figures S2 and S3 in Supplementary materials). On a global level, the network structure can be divided into five clusters (one for each personality domain), showing the intra-domain proximity and the moderate connections they exhibit (thicker lines), especially openness (see Figure 2 and Table S4 in Supplementary materials). Furthermore, the network structure also revealed some small inter-domain connections and proximity (e.g., between conscientiousness and neuroticism).

Figure 2 reveals that the ASV (i.e., number 26 in Figure 2) has small and negative connections with conscientiousness in the romantic partner and family situations.

#### DISCUSSION

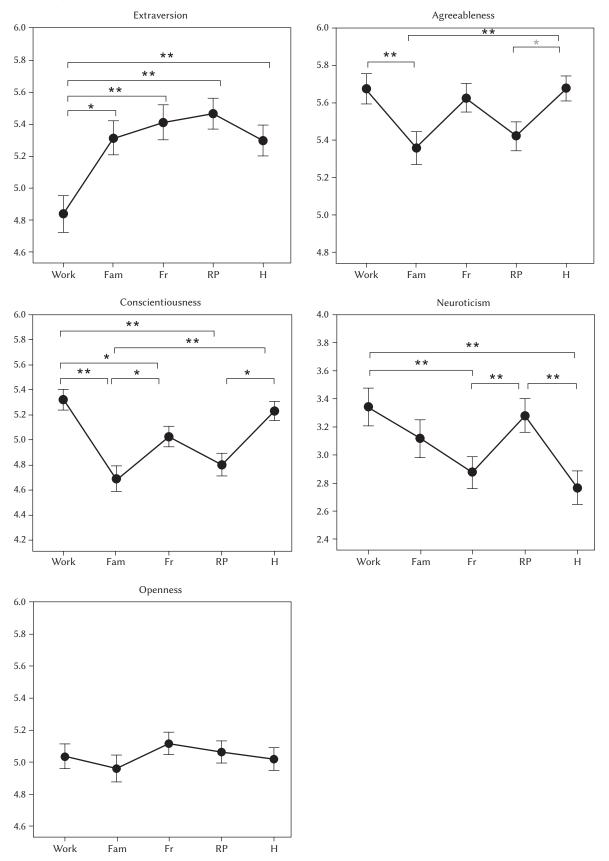
#### SITUATIONS AND PERSONALITY TRAITS

A growing body of research stresses the importance of the situation of personality traits (Parrigon et al., 2017; Rauthmann et al., 2014; Ziegler et al., 2019). Specifically, the perception of a situation can determine individuals' behaviors, attitudes, and reactions (Rauthmann et al., 2014), and significant psychological outcomes can be predicted from situations (Parrigon et al., 2017).

The present study's findings show a strong interaction between personality traits and situations  $(\eta_{n}^{2} = .16)$ : all personality domains exhibit significant variation according to our five situations (except for openness). The intra-domain correlations are consistent with this finding: neuroticism, extraversion, conscientiousness, and agreeableness presented approximately the same correlation levels (mean r = .60/.67), while openness displayed the highest intra-domain correlations (mean r = .76). Hence, since these four personality traits demonstrate more lability across situations, they are *relatively* stable. In other words, they are more adaptive and context-dependent. Our findings partly complement (except for extraversion) a recent meta-analysis showing that neuroticism, agreeableness, and conscientiousness are the most modifiable traits throughout the ages (Bleidorn et al., 2022) and situations (our results).

Openness appears to be the most robust and stable trait across situations (our findings) and age trends (Bleidorn et al., 2022; Damian et al., 2019). The reason openness to experience is the most robust and stable personality trait is quite paradoxical because,

# Figure 1

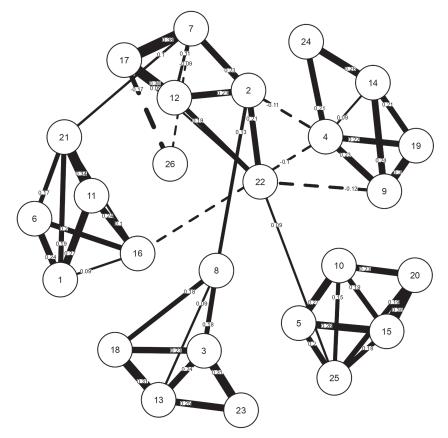


Domain differences across situations

*Note.* Fam – family; Fr – friends; RP – romantic partner; H – hobbies; \*p < .10, \*p < .05, \*\*p < .01.

#### Figure 2

#### Network structure



*Note.* Dotted lines represent negative relations and full lines positive ones. The edges emerged as more stable considering the estimated confidence intervals, estimated over 1,000 bootstrap resampling events. The thicker the edge, the stronger the relation. Only edges > 0.08 are shown. 1 – work, agreeableness; 2 – work, conscientiousness; 3 – work, extraversion; 4 – work, neuroticism; 5 – work, openness; 6 – family, agreeableness; 7 – family, conscientiousness; 8 – family, extraversion; 9 – family, neuroticism; 10 – family, openness; 11 – friends, agreeableness; 12 – friends, conscientiousness; 13 – friends, extraversion; 14 – friends, neuroticism; 15 – friends, openness; 16 – romantic partner, agreeableness; 17 – romantic partner, conscientiousness; 18 – romantic partner, extraversion; 19 – romantic partner, neuroticism; 20 – romantic partner, openness; 21 – hobbies, agreeableness; 22 – hobbies, conscientiousness; 23 – hobbies, extraversion; 24 – hobbies, neuroticism; 25 – hobbies, openness; 26 – across-situation variability.

after adolescence, experiences (from situations or ages) appear no longer to influence how people are open to them. However, Schwaba et al. (2022) found that some openness sub-domains (e.g., openness to feelings, values, and fantasy, and self vs. close-others ratings of unconventionality) displayed significant modifications across adulthood development, suggesting that some openness sub-domains may also change across situations.

In our study, we found lower extraversion levels at work as compared to other situations. This finding could appear inconsistent with a recent metaanalysis showing the pervasive advantage of extraversion at work (Wilmot et al., 2019). For instance, facets such as enthusiasm, positive emotions, assertiveness, dominance, and activity were recognized to provide motivational, emotional, interpersonal, and performance advantages in work contexts (Wilmot et al., 2019). Therefore, one may wonder why people described themselves as less extroverted in this situation compared to the other situations. Firstly, it's important to note that having higher extraversion scores can still be advantageous at work, despite the tendency for some people to restrain their extraversion in this situation. Work is a polysemic term describing a particular social organization where someone performs tasks, acts, or actions. It is associated with exhaustion (e.g., labor primarily means "toil"), and the performed task generally involves retributions (Sarti et al., 2018). Therefore, because people are assigned to perform tasks in a stricter and more normative context, they are generally less outgoing and demonstrative than in other situations. Most of the time, workers have to endorse a social role where performance, rigor, and precision are valued and where other people are mostly strangers, leading people to lower the expression of their extraversion. However, people who maintain higher extraversion traits at work still benefit from several advantages, as Wilmot et al. (2019) showed.

Lower levels of agreeableness were found in family and romantic partner situations compared to work and hobbies, suggesting that this other-oriented trait strongly depends on the interaction partner. Jensen-Campbell and Graziano (2001) stated that agreeableness aims to maintain positive interpersonal relations, but it seems especially true for people beyond a certain level of intimacy. For example, friends, hobby partners, or co-workers appear as privileged targets of our agreeableness, while primary caregivers (from family) and intimate partners are part of a developmental continuum (Dinero et al., 2008) where people do not magnify agreeableness.

Conscientiousness reached its highest level at work and hobbies, two situations mostly requiring order, self-discipline, and goal achievement (especially work). In contrast, the lowest conscientiousness levels were observed in the family and romantic partner situations. This trait is known as the most potent noncognitive construct having extensive application in job performances (Barrick et al., 2001; Wilmot & Ones, 2019), which might also be true for hobbies. In line with this idea, its most potent effects were in orderly and well-structured occupational settings, such as work or hobbies, presenting clear social expectations (Wilmot & Ones, 2019).

Finally, neuroticism displayed higher levels in the romantic partner situation and at work and lower levels in the friends and hobbies situations. Scollon and Diener (2006) demonstrated that neuroticism and extraversion change over time at work and with romantic partners. They found that when satisfaction increased, neuroticism decreased, and extraversion increased. In our study, the average intra-domain correlation of neuroticism was .61, the lowest compared to the four other domains, showing that this trait appears less consistent across situations than other traits. For decades, studies have shown that neuroticism strongly impacts work and romantic relationships. For instance, neuroticism is the strongest negative predictor of job satisfaction (Judge et al., 2002) and a threat to marital happiness or marital satisfaction (Karney & Bradbury, 1997; Sayehmiri et al., 2020). However, a few studies showed that specific situations induce neuroticism modulations. For instance, Tong et al. (2018) demonstrated that marriage increased neuroticism, and Bleidorn et al. (2018) found that first romantic relationships and work induce personality changes. They reported a significant decrease in neuroticism and a significant increase in extraversion for the former situation and significant increases in agreeableness, conscientiousness, openness, and a neuroticism decrease for the latter. Our finding suggests that environments containing stressful factors (e.g., deadlines, performances, work achievements, uncertainty) are more likely to cause an increase in neuroticism.

# NETWORK ANALYSIS AND ACROSS-SITUATION VARIABILITY

Our second objective was to explore the relations between the ASV and all personality domains across all situations. First, we found significant and negative Spearman's correlations between ASV and extraversion (in family and work situations) and ASV and conscientiousness (in family, friends, and romantic partner situations), and significant and positive Spearman's correlations between ASV and neuroticism (at work). This shows that people changing the most according to situations tend to present low levels of extraversion and conscientiousness and higher levels of neuroticism (especially at work), and vice versa. The network analysis clarified these correlations by showing that ASV was especially connected with conscientiousness (in the family and romantic partner situations). Clifton (2014) notably showed that people behave less conscientiously with the closest members of their social networks (and this seems especially true for people presenting high ASV), probably due to reduced efforts or motivation to be conscientious. The author argued that people might be more inclined to social desirability for peripheral members.

Creating five-situation questionnaires completes our understanding of personality. Based on Fleeson's (2001) argument that people vary in their sensitivity to environmental cues, we believe that individuals present different ASV levels because of their sensitivity to context variables. In line with this argument, Davidson's emotional styles theory (Davidson & Begley, 2012) also describes people presenting a *sensitivity to context* style who regulate their emotional responses by considering the context they find themselves in. Indeed, depending on the interaction partner, there are different rules and expectations, leading people to behave and exhibit emotions differently.

In the present study, we used the ASV measurement for the first time, and we suggest that it might be a potential marker of psychopathology. Anastasi (1983) explained that people adapt their behaviors according to the demands of each situation. Therefore, when people present moderate ASV levels in their personality, it indicates effective and adaptive flexibility. However, when individuals demonstrate lower ASV levels, they might be more inclined to present a dysfunctional rigidity. Therefore, lower ASV individuals can be considered rigid because of their lack of sensitivity to context variables, and they might experience more social conflicts or social ostracism in the long run. On the other hand, people presenting higher ASV levels might be more inclined to lack consistency in their personality because of a higher propensity to change according to context variables, revealing a maladaptive form of personality. In line with these arguments, in the *Diagnostic* and statistical manual of mental disorders (DSM-5; APA, 2013), several psychopathologies are associated with a constant rigidity or an inflexible way of behaving (e.g., obsessive-compulsive personality disorders or autism spectrum disorder) or extreme lability in affects or behaviors (e.g., borderline personality disorder, hyperactivity disorder, bipolar and related disorders, or general personality disorder).

Moreover, Kotov et al. (2010) found in their metaanalysis that three personality domains (neuroticism, extraversion, and conscientiousness) were associated with psychopathology measurements (i.e., depression, dysthymic disorder, anxiety, PTSD, phobias, obsessive-compulsive disorder, and substance use disorders). These psychopathology measurements were significantly and positively correlated with neuroticism and negatively correlated with extraversion and conscientiousness. Kotov et al.'s (2010) findings are concordant with the ones observed in the present study in terms of significance, type (positive correlations between ASV and neuroticism; negative correlations between ASV and extraversion and conscientiousness), and magnitude (moderate correlations). The network analysis clarified these relations by showing that ASV is only connected to conscientiousness when controlling other variables, which, again, supports Kotov et al.'s (2010) findings. They mentioned that "the biggest surprise involved conscientiousness, as it yielded consistently strong effects, the majority of which remained unambiguous after adjusting for neuroticism [...] This finding highlights and extends the observations of Malouff et al. (2005), who also noted the important role of low conscientiousness in psychopathology" (Kotov et al., 2010, p. 804). More recently, other authors (Naragon-Gainey & Simms, 2017) also reported that conscientiousness was consistently associated with internalizing (e.g., depression or anxiety) and externalizing disorders (e.g., substance use disorders or antisocial personality disorders). However, the reason why this personality domain is related to psychopathology remains unclear.

In conclusion, this study demonstrates that most traits significantly differed across situations (except openness), emphasizing the importance of considering situations when assessing personality. In clinical psychology, these findings will provide a better understanding of which traits would display the most substantial changes and how these changes might occur. Furthermore, it will give concrete situations that can be exploited to potentiate some expected changes.

We also found significant correlations or connections between ASV and personality domains (especially with conscientiousness), indicating that ASV might be a potential psychopathology marker (but further investigations are needed to confirm this suggestion).

#### LIMITATIONS

This study's main limitations were: (1) the study sample comprised 80 participants. Despite being sufficiently powered, false positives are not completely excluded. Thus, replications in different populations and broader age samples would be required to confirm our results; (2) there are well-known potential biases associated with self-report completion of questionnaires (e.g., social desirability), and there is no certainty that participants completed the different versions of the questionnaires according to the instructions given by the situation. Therefore, these limits should be taken into account when interpreting the results.

#### Endnotes

- 1 Students received a specific instruction for the work situation. They had to consider their academic activities as work-related activities. As demonstrated by Schaufeli and Taris (2005), education is a worklike activity where students have to fulfill several work-like requirements.
- 2 To create the ASV variable, we calculated each participant's variance for each personality domain and ran a simple addition of domain variances to obtain a total ASV score.
- 3 We conducted a MANOVA with repeated measures (Situations [within-factor], Domains [betweenfactor], and current status [between-factor] were introduced as variables) and no significant interaction effects were found between undergraduate students and workers: neither between situations and status (F(75, 99) = 1.17, p = .193), nor between domains and status (F(69, 46) = 1.12, p = .277), nor between situations, domains, and status (F(226, 23)= 0.82, p = .959), suggesting that these populations are homogeneous.

Supplementary materials are available on journal's website.

#### References

- Allport, G. W., & Odbert, H. S. (1936). Trait-names: a psycho-lexical study. *Psychological Monographs*, 47, i-171. https://doi.org/10.1037/h0093360
- Anastasi, A. (1983). Traits, states, and situations: a comprehensive view. In H. Wainer & S. Messick (Eds.), *Principles of modern psychological measurement* (pp. 345–356). Routledge, Taylor & Francis Group.
- APA (2013). Diagnostic and statistical manual of mental disorders – DSM-5 (5th ed.). APA Publishing.
- Barrick, M. R., Mount, M. K., & Judge, T. A. (2001). Personality and performance at the beginning of

the new millennium: What do we know and where do we go next? *International Journal of Selection and Assessment, 9*, 9–30. https://doi.org/10.1111/ 1468-2389.00160

- Bleidorn, W., Hopwood, C. J., & Lucas, R. E. (2018). Life events and personality trait change. *Journal* of Personality, 86, 83-96. https://doi.org/10.1111/ jopy.12286
- Bleidorn, W., Schwaba, T., Zheng, A., Hopwood, C., Sosa, S., Roberts, B., & Briley, D. (2022). Personality stability and change: a meta-analysis of longitudinal studies. *Psychological Bulletin*, 148, 588–619. https://doi.org/10.1037/bul0000365
- Childs, B. R., Weidman, J. E., Farnsworth, C. B., & Christofferson, J. P. (2017). Use of personality profile assessments in the US commercial construction industry. *International Journal of Construction Education and Research*, *13*, 267–283. https://doi.org/10.1080/15578771.2016.1246493
- Clark, L. A., Nuzum, H., Shapiro, J. L., Vanderbleek, E. N., Daly, E. J., Simons, A. D., & Ro, E. (2020). Personality profiles as potential targets for intervention: Identification and replication. *Personality and Mental Health*, 14, 142–163. https://doi.org/ 10.1002/pmh.1455
- Clifton, A. (2014). Variability in personality expression across contexts: a social network approach. *Journal of Personality*, 82, 103–115. https://doi.org/ 10.1111/jopy.12038
- Cloninger, C. R., & Svrakic, D. M. (2016). Personality disorders. In S. H. Fatemi & P. J. Clayton (Eds.), *The medical basis of psychiatry* (pp. 537–551). Springer.
- Costa, P. T., & McCrae, R. R. (1992). Normal personality assessment in clinical practice: The NEO Personality Inventory. *Psychological Assessment*, 4, 5–13. https://doi.org/10.1037/1040-3590.4.1.5
- Damian, R. I., Spengler, M., Sutu, A., & Roberts, B. W. (2019). Sixteen going on sixty-six: a longitudinal study of personality stability and change across 50 years. *Journal of Personality and Social Psychology*, 117, 674–695. https://doi.org/10.1037/ pspp0000210
- Davidson, R. J., & Begley, S. (2012). *The emotional life* of your brain. Hudson Street Press.
- De Fruyt, F., Bartels, M., Van Leeuwen, K. G., De Clercq, B., Decuyper, M., & Mervielde, I. (2006). Five types of personality continuity in childhood and adolescence. *Journal of Personality and Social Psychology, 91*, 538–552. https://doi.org/10.1037/ 0022-3514.91.3.538
- Dinero, R. E., Conger, R. D., Shaver, P. R., Widaman, K. F., & Larsen-Rife, D. (2008). Influence of family of origin and adult romantic partners on romantic attachment security. *Journal of Family Psychology, 22*, 622–632. https://doi.org/10.1037/ a0012506
- Donnellan, M. B., & Lucas, R. E. (2008). Age differences in the Big Five across the life span: Evidence

from two national samples. *Psychology and Aging*, 23, 558–566. https://doi.org/10.1037/a0012897

- Edmonds, G. W., & Hill, P. L. (2020). Personality stability over time. In B. J Carducci & C. S. Nave (Eds.), *The Wiley encyclopedia of personality and individual differences. Volume I: Models and theories* (pp. 329–339). John Wiley & Sons Ltd.
- Epskamp, S., Rhemtulla, M. T., & Borsboom, D. (2017). Generalized network psychometrics: Combining network and latent variable models. *Psychometrika*, *82*, 904–927. https://doi.org/10.1007/s11336-017-9557-x
- Epskamp, S., Borsboom, D., & Fried, E. I. (2018), Estimating psychological networks and their accuracy: a tutorial paper. *Behavior Research Methods*, *50*, 195–212. https://doi.org/10.3758/s13428-017-0862-1
- Epskamp, S., Cramer, A. O., Waldorp, L. J., Schmittmann, V. D., & Borsboom, D. (2012). qgraph: Network visualizations of relationships in psychometric data. *Journal of Statistical Software, 48*, 1–18. https://doi.org/10.18637/jss.v048.i04
- Faul, F., Erdfelder, E., Lang, A. G., & Buchner, A. (2007). G\*Power 3: a flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods, 39*, 175–191. https://doi.org/10.3758/bf03193146
- Fleeson, W. (2001). Toward a structure-and processintegrated view of personality: Traits as density distributions of states. *Journal of Personality and Social Psychology, 80*, 1011–1027. https://doi.org/ 10.1037/0022-3514.80.6.1011
- Foygel, R., & Drton, M. (2010). Extended Bayesian information criteria for Gaussian graphical models. Advances in Neural Information Processing Systems, 23, 604–612.
- Funder, D. C. (2006). Towards a resolution of the personality triad: Persons, situations, and behaviors. *Journal of Research in Personality*, 40, 21–34. https://doi.org/10.1016/j.jrp.2005.08.003
- JASP Team (2022). JASP (version 0.16.3.0) [Computer software].
- Jensen-Campbell, L. A., & Graziano, W. G. (2001). Agreeableness as a moderator of interpersonal conflict. *Journal of Personality, 69*, 323–362.
- John, O. P., Donahue, E. M., & Kentle, R. L. (1991). *The Big Five Inventory – versions 4a and 5.* Institute of Personality and Social Research, University of California, Berkeley.
- Judge, T. A., Heller, D., & Mount, M. K. (2002). Five-factor model of personality and job satisfaction: a meta-analysis. *Journal of Applied Psychology*, 87, 530– 541. https://doi.org/10.1037//0021-9010.87.3.530
- Karney, B. R., & Bradbury, T. N. (1997). Neuroticism, marital interaction, and the trajectory of marital satisfaction. *Journal of Personality and Social Psychology*, 72, 1075–1092. https://doi.org/10.1037/ 0022-3514.72.5.1075

- Kotov, R., Gamez, W., Schmidt, F., & Watson, D. (2010). Linking "big" personality traits to anxiety, depressive, and substance use disorders: a meta-analysis. *Psychological Bulletin*, *136*, 768–821. https://doi. org/10.1037/a0020327
- McCrae, R. R., Martin, T. A., & Costa, P. T. (2005). Age trends and age norms for the NEO Personality Inventory-3 in adolescents and adults. *Assessment*, *12*, 363–373. https://doi.org/10.1177/1073191105279724
- Mischel, W. (1969). Continuity and change in personality. *American Psychologist*, 24, 1012–1018. https:// doi.org/10.1037/h0028886
- Mroczek, D. K., & Spiro, A. (2003). Modeling intraindividual change in personality traits: Findings from the normative aging study. *The Journals of Gerontology: Series B*, *58*, 153–165. https://doi.org/10.1093/ geronb/58.3.P153
- Naragon-Gainey, K., & Simms, L. J. (2017). Clarifying the links of conscientiousness with internalizing and externalizing psychopathology. *Journal* of Personality, 85, 880–892. https://doi.org/10.1111/ jopy.12295
- Parrigon, S., Woo, S. E., Tay, L., & Wang, T. (2017). CAPTION-ing the situation: a lexically-derived taxonomy of psychological situation characteristics. *Journal of Personality and Social Psychology*, 112, 642–681. https://doi.org/10.1037/pspp0000111
- Plaisant, O., Courtois, R., Réveillère, C., Mendelsohn, G. A., & John, O. P. (2010). Validation par analyse factorielle du Big Five Inventory français (BFI-Fr). A nalyse convergente avec le NEO-PI-R [Factor structure and internal reliability of the French Big Five Inventory (BFI-Fr). Convergent and discriminant validation with the NEO-PI-R]. Annales Médico-Psychologiques, Revue Psychiatrique, 168, 97–106. https://doi.org/10.1016/j.amp. 2009.09.003
- R Core Team (2017). *R: a language and environment for statistical computing*. R Foundation for Statistical Computing. Retrieved from https://www.R-project. org
- Rauthmann, J. F., Gallardo-Pujol, D., Guillaume, E. M., Todd, E., Nave, C. S., Sherman, R. A., Ziegler, M., Jones, A. B., & Funder, D. C. (2014). The Situational Eight DIAMONDS: a taxonomy of major dimensions of situation characteristics. *Journal of Personality and Social Psychology*, 107, 677–718. https://doi.org/10.1037/a0037250
- Roberts, B. W., & DelVecchio, W. F. (2000). The rankorder consistency of personality traits from childhood to old age: a quantitative review of longitudinal studies. *Psychological Bulletin, 126*, 3–25. https://doi.org/10.1037//0033-2909.126.1.3
- Roberts, B. W., Walton, K. E., & Viechtbauer, W. (2006).
  Patterns of mean-level change in personality traits across the life course: a meta-analysis of longitudinal studies. *Psychological Bulletin, 132*, 1–25. https://doi.org/10.1037/0033-2909.132.1.11

- Sarti, R., Bellavitis, A., & Martini, M. (2018). What is work? Gender at the crossroads of home, family, and business from the early modern era to the present (Vol. 30). Berghahn Books.
- Sayehmiri, K., Kareem, K. I., Abdi, K., Dalvand, S., & Gheshlagh, R. G. (2020). The relationship between personality traits and marital satisfaction: a systematic review and meta-analysis. *BMC Psychology, 8*, 15. https://doi.org/10.1186/s40359-020-0383-z
- Schaufeli, W. B., & Taris, T. W. (2005). The conceptualization and measurement of burnout: Common ground and worlds apart. *Work & Stress*, 19, 256– 262. https://doi.org/10.1080/02678370500385913
- Schwaba, T., Bleidorn, W., Hopwood, C. J., Manuck, S. B., & Wright, A. G. C. (2022). Refining the maturity principle of personality development by examining facets, close others, and comaturation. *Journal of Personality and Social Psychology*, 122, 942–958. https://doi.org/10.1037/pspp0000400
- Scollon, C. N., & Diener, E. (2006). Love, work, and changes in extraversion and neuroticism over time. *Journal of Personality and Social Psychology*, *91*, 1152–1165. https://doi.org/10.1037/0022-3514. 91.6.1152
- Soto, C. J., John, O. P., Gosling, S. D., & Potter, J. (2011). Age differences in personality traits from 10 to 65: Big Five domains and facets in a large crosssectional sample. *Journal of Personality and Social Psychology, 100*, 330–348. https://doi.org/10.1037/ a0021717
- Specht, J., Bleidorn, W., Denissen, J. J., Hennecke, M., Hutteman, R., Kandler, C., Luhmann, M., Orth, U., Reitz, A. K., & Zimmermann, J. (2014). What drives adult personality development? A comparison of theoretical perspectives and empirical evidence. *European Journal of Personality, 28*, 216–230. https://doi.org/10.1002/per.1966
- Terracciano, A., McCrae, R. R., & Costa, P. T. (2010). Intra-individual change in personality stability and age. *Journal of Research in Personality*, 44, 31–37. https://doi.org/10.1016/j.jrp.2009.09.006
- Tong, W., Li, P., Zhou, N., He, Q., Ju, X., Lan, J., Li, X., & Fang, X. (2018). Marriage improves neuroticism in Chinese newlyweds: Communication and marital affect as mediators. *Journal of Family Psychology*, 32, 986–991. https://doi.org/10.1037/fam0000448
- Twenge, J. M. (2001). Birth cohort changes in extraversion: a cross-temporal meta-analysis, 1966-1993.
   Personality and Individual Differences, 30, 735-748. https://doi.org/10.1016/S0191-8869(00)00066-0
- Twenge, J. M., & Campbell, S. M. (2008). Generational differences in psychological traits and their impact on the workplace. *Journal of Managerial Psychology*, 23, 862–877. https://doi.org/10.1108/ 02683940810904367
- van Doorn, J., van den Bergh, D., Böhm, U., Dablander, F., Derks, K., Draws, T., Evans, N. J., Gro-

nau, Q. F., Haaf, J. M., Hinne, M., Kucharský, S., Ly, A., Marsman, M., Matzke, D., Komarly Narendra Gupta, A. R., Sarafoglou, A., Stefan, A., & Wagenmakers, E. J. (2021). The JASP guidelines for conducting and reporting a Bayesian analysis. *Psychonomic Bulletin & Review, 28*, 813–826. https://doi.org/10.3758/s13423-020-01798-5

- Wilmot, M. P., & Ones, D. S. (2019). A century of research on conscientiousness at work. *Proceedings* of the National Academy of Sciences, 116, 23004– 23010. https://doi.org/10.1073/pnas.1908430116
- Wilmot, M. P., Wanberg, C. R., Kammeyer-Mueller, J. D., & Ones, D. S. (2019). Extraversion advantages at work: a quantitative review and synthesis of the meta-analytic evidence. *Journal of Applied Psychology*, *104*, 1447–1470. https://doi.org/10.1037/ apl0000415
- Ziegler, M., & Horstmann, K. (2015). Discovering the second side of the coin: Integrating situational perception into psychological assessment. *European Journal of Psychological Assessment*, *31*, 69–74. https://doi.org/10.1027/1015-5759/a000258
- Ziegler, M., Horstmann, K. T., & Ziegler, J. (2019). Personality in situations: Going beyond the OCEAN and introducing the Situation Five. *Psychological Assessment*, 31, 567–580. https://doi.org/10.1037/ pas0000654