



Personality Super Traits and Verbal Aptitude as Indices of Career Aspiration among Senior Secondary School Students in Edo South Senatorial District

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ABSTRACT

This study examined the relationship among personality traits, verbal aptitude and career aspirations of senior secondary school students in Edo South Senatorial District. Two research questions and two hypotheses guided the study. Related literature was reviewed. The design of the study was an ex post facto research and correlational method. The population of the study was 16,990, comprised of all public SS2 students in Edo South Senatorial District. A sample of 378 students was used in this study. Simple random, convenience and stratified sampling were used in this study. A questionnaire was used to obtain data from the respondents. The questionnaire was adequately validated through expert judgments and factor analysis to estimate its face, content, and construct validity and was found appropriate and usable for the study. The reliability of the instrument was done to determine its measure of internal consistency, through Cronbach's Alpha reliability. Descriptive statistics (mean and standard deviation), and coefficient of determination were used to answer research questions while regression and multiple regression analysis were used to test the stated hypotheses at 0.05 level of significance. There was no significant relationship among extraversion personality trait (EPT), agreeableness personality trait (APT), conscientiousness personality trait (CPT), neuroticism personality trait (NPT), openness to experience personality trait (OEPT) and Career aspiration among public SS2 students. There was no significant relationship between verbal aptitude test and Career aspiration among public SS2 students. From the findings, conclusion was drawn and it was recommended among others that there should be a career day at least once in a term to expose the students to different occupations in the world of work.

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INTRODUCTION

The issue of career as it pertains to students is of great interest to the researcher! How students aspire towards a career in relation to their personality traits is something that tickles the researchers' fancy. One of the most important life decisions that any student will ever make is the choice of career. It is a complex decision for students since it determines the kind of profession that they intend to pursue in life.

A career is the sequence of occupations, jobs and positions held during the

course of life. It also refers to an occupation or profession one has been trained for and intends to do for several years for the purpose of earning a living. There are evidences that majority of secondary school students lack necessary knowledge to make realistic choices (Abdullahi & Atsua, 2014). Thus, career aspirations are oriented to self-assessment and self-discovery procedures which reflect individuals' goals, needs, personalities, or interests (Hall, 2006). There could be many factors that have its origin in students' career aspiration. Though, some researchers have

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investigated the influence of students' career choice. However, the problem of career aspiration still persists among secondary school students. This could be why Onoyase and Onoyase (as cited in Ohadoma, 2014) suggested an investigation into other factors that may influence students' aspiration for career in order to guide students in making the right and rational career choice is necessary. In view of this, the researchers interested to investigate the force of personality traits and verbal aptitude test on career aspiration among senior secondary school students in Edo South Senatorial District.

Personality is the set of habitual behaviours, cognitions and emotional patterns which have evolved from biological and environmental factors (Corr. & Matthews, 2009). Personality traits are aspects of personality that are relatively stable over time, differ across individuals and are relatively consistent over situations (Anusic & Schimmack, 2016). Probably the most common framework to the study of personality traits is the Big Five. The Big Five trait taxonomy is a hierarchical model of personality traits with five broad factors, which represent personality at the broadest level of abstraction. These factors are Neuroticism, Extraversion, and Openness to Experience, Agreeableness, and Conscientiousness.

Several scholars have argued that personality traits, processes and behaviours should be separated from each other in order to increase our understanding of how personality explains behaviours (Baumert et al., 2017; Zeigler-Hill et al., 2019). On this note, personality traits can be seen as basic tendencies or general predispositions, largely controlled by biological influences (McCrae, 2018). The individual's behavioural displays are expected to follow the law of effect: certain behaviour increases when it satisfies a person's needs and desires, and a certain behaviour decreases when it does not (Wood et al., 2015). The 'Big Five Model' which is also known as 'Five Factor Model (NEO-FFM) comprises five specific trait constructs namely, openness to experience, conscientiousness, extraversion, agreeableness and neuroticism. Agreeableness, according to Abdullah (2017) is person with personality characteristics that tend to be courteous, affectionate manners and

enjoy coordination. "Agreeable individuals are tolerant and highly forgiving. They do not like using force and avoid putting pressure" (Ahmad et al., 2016). Openness to experience, according to Golsteyn et al. (2017), refers to being open to new cultural or intellectual experiences. Openness implies exposing ourselves to fresh cultural or academic perspectives. Conscientiousness, according to Liu and Campbell (2017), is a personality that is "described as the tendency to follow the rules, be industrious and dutiful, and resist immediate gratification in the interest of long-term goals. Extraversion personality according to Costa and McCrae (as cited in Roczniowska & Bakker, 2016), usually are expected to have a good number of social skills abilities and surrounded with many friends. According to Golsteyn et al. (2017) neuroticism is a personality of a persistent degree of mental dysfunction, psychological distress propensity, insecurity, and impulsiveness.

Anake, Adigeb and Bassey (2017) investigated the influence of personality traits on career decisions among secondary school students in Yakurr Local Government Area of Cross River State, Nigeria. The result obtained indicated that personality traits of attitude and perception have a significant influence on career decision among secondary school students. But this study was not carried out in Edo South Senatorial District, to the best knowledge of the researchers. Alkheilil (2016) examined the relationship between personality traits and career aspiration and if these traits can affect the choice of major in the university/college. The results indicate that there is a significant relationship between personality traits and career aspiration in the most cases as explored in the results section. Though, this study was not carried out in Edo South Senatorial District, to the best knowledge of the researchers. Mullola, et. al (2018) investigated how personality traits are associated with medical career aspirations after graduating from medical school, in terms of employment sector, patient contact, medical specialty and change of specialty. But this study was not carried out in Edo South Senatorial District, to the best knowledge of the researchers. Kemboi, et. al (2016) investigated the relationship between personality types and

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career aspirations of undergraduate students of Moi University. Results indicated that there was a relationship between personality types, and career aspiration. The study also found that most of the students (73.3%) are satisfied with their course of study. But this study was not carried out in Edo South Senatorial District, to the best knowledge of the researchers.

Aptitude is defined in Warrens Dictionary as "A condition or set of characteristics regarded as symptomatic of an individual's ability to acquire with training some (usually specified) knowledge, skill or set of responses such as the ability to speak a language, to produce music etc. Mursell (2009) defines "Aptitude as the dynamic trend of the whole personality with mental organisation that makes one good in learning and in performing a specialised type of work. Aptitude is described as the potential ability to reflect on one's chance to succeed in completing a task. Aptitude reflects a person's condition to reach various achievements and work optimally with the skills and capability that one owns. Aptitude measurement has continuously changed along the development of the intelligence test. Initially, the design of the aptitude test saw cognitive ability as a single unity (Domino & Domino, 2006).

Studies that investigate the correlation between SDS Holland profiles with cognitive abilities have used various measurement tools. Based on the meta-analysis by Pässler et al. (2015), seven studies used SDS Holland to correlate with PL-PQ, WAIS-R, BAB, WPT, APM, and ability battery. One of the aptitude tests that has been adapted and widely used in Indonesia is the Employee Aptitude Survey (EAS). EAS has been used for more than 50 years in the career and recruitment counselling context (Leong, 2008) and has been claimed to provide a maximum validity per minute during test administration. This test has also been validated in various studies in the Indonesian context (Widiana, 2012). Ekeke and Onukwufor (2021) investigated conformity and aptitude as predictors of science related career aspiration among secondary school students in Rivers State. Result of the study showed that conformity relates about 0.7% within science career choice and it significantly predict science related career aspiration

among secondary school students in Rivers State. Also, aptitude relates about 1.1% with science career aspiration and ($p=0.007<0.05$) significantly predict science related career aspiration among secondary school students in Rivers State. Though, this study was not carried out in Edo South Senatorial District.

This study is anchored on Mitchell and Krumboltz's "Social Learning Theory of Academic Decision-Making Process and Career aspiration" (1990). One of the assumptions of the theory is that academic decision-making and career aspiration are fully dependent on many motivational elements. Motivational variables were seen as an effective tool for academic and vocational decision-making in this idea.

The above theory is relevant to the present study because a person's behaviour is determined by an interaction between his personality and the characteristics of his environment. Given that the current study focused on the relationship among personality traits, verbal aptitude, and career aspiration of students, this theory provided the primary theoretical underpinning for the study.

Statement of Problem

A lot of students in secondary schools believe that their future is a glorious adventure in which they are bound to succeed. Students in secondary schools like many other young adults are always worried about what they will do with their lives, the kind of adult they will become. During the researcher's teaching practice and practicum exercise at different times, it was observed that more than half of the students were unaware about occupations and world of work. As a result of this, they were unrealistic in their career aspirations, and those who made choices of their careers only selected from the occupation they knew. Certain factors such as: peer pressure, parental pressure, socio-economic status, self-concept, self-efficacy, self-esteem and locus of control have been studied to predict the career choice of students. In this present study, researchers are considering the possibility that personality traits and verbal aptitude may influence students' aspiration for career. This prompted the researchers to embark on this study, titled: Personality Super Traits, Verbal Aptitude Test and Career

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Aspiration among senior secondary school students in Edo South Senatorial District of Edo State.

Research Questions

The following research questions shall guide the study:

1. What is the relationship among personality traits of extraversion, agreeableness, conscientiousness, neuroticism, openness to experience and Career aspiration among public SS2 students in Edo South Senatorial District?
2. What is the relationship between verbal aptitude test and Career aspiration among public SS2 students in Edo South Senatorial District?

Hypotheses

The following null hypotheses have been formulated and will be tested at 0.05 level of significance:

1. There is no significant relationship among personality traits of extraversion, agreeableness, conscientiousness, neuroticism, openness to experience and Career aspiration among public SS2 students in Edo South Senatorial District.
2. There is no significant relationship between verbal aptitude test and Career aspiration among public SS2 students in Edo South Senatorial District.

METHODOLOGY

This study adopted an *ex-post facto* research design and a correlational method. The study's population was 16,990, comprising public SS2 students in Edo South Senatorial District. The sample size of 378 was chosen based on Krejcie and Morgan's (1970) cited by Gill, Johnson and Clark (2010) recommendation that in a population of 15,000 to 19,999, a sample size of 378 is appropriate. Simple random, convenience and stratified sampling techniques were adopted in this study. The instrument used to obtain data in this study was a questionnaire. The questionnaire was made up of two sessions. Session A and B. The session A was made up of personal data of the respondents such as: gender and parental educational status, while the session B was made of big five inventory, Verbal Aptitude Test (VAT) and Career

Aspiration Rating Scale (CARS). The Big Five Inventory (BFI) was adapted from John and Srivastave (1999). The scale was made up of 35 items, The Verbal Aptitude Test (VAT) was an adopted instrument from West African Examination Council (WAEC) past questions on Test of English Language in the 2019/2020 academic session. It was used to measure the students' verbal ability in English Language. The instrument was used to examine the students' cognitive ability on English Grammar, Verbal Analogies, Comprehension, Verbal deduction, Sentence Completion and Word Group. It was made of 20 Multiple Choice Questions which will be later converted to 100%. The Career Aspiration Rating Scale (CARS) was adapted from the Career Decision Scale (CDS) as cited in Bruce (1987), Osipow, Carney, Winer, Yanico and Koschier (1976), to measure career aspiration of students. The scale contained 19 items but 7 items were adapted. Likert format will be used in scoring items with options of strongly agree (SA) = 4, agree (A) = 3, disagree (D) = 2, strongly disagree (SD) = 1. Face, content and construct validities were estimated for the research instrument. To ascertain the internal consistency of the instrument, 50 copies of the questionnaire were administered to the students outside the population of the study. The data collected with the questionnaire were subjected to Cronbach alpha reliability method. The reliability coefficient obtained for personality super traits scale were: 0.59 for Neuroticism, 0.77 for Agreeableness scale, 0.62 for Openness to experience, 0.68 for conscientiousness scale, and 0.77 for Career Aspiration scale. The researchers administered the instrument directly to the respondents. The research questions were answered using descriptive statistics and Pearson coefficient of determination while hypotheses were tested using regression statistics at 0.05 level of significance.

RESULTS

Research Question 1: What is the relationship between personality traits of extraversion personality trait (EPT), agreeableness personality trait (APT), conscientiousness personality trait (CPT), neuroticism personality trait (NPT), openness to experience personality trait (OEPT) and Career aspiration

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among public SS2 students in Edo South Senatorial District?

Table 1: Correlation between personality traits of extraversion personality trait (EPT), agreeableness personality trait (APT), conscientiousness personality trait (CPT), neuroticism personality trait (NPT), openness to experience personality trait (OEPT) and Career aspiration among public SS2 students in Edo South Senatorial District.

variable	M	SD	N	r	R ²	R ² (adjusted)	SE	Decision
Career Aspiration	18.31	3.08	360					
				.10	.01	.00	4.08	low Relationship
EPT	20.25	3.82						
APT	21.76	3.90						
CPT	20.67	4.28						
NPT	13.78	5.67						
OEPT	24.81	5.50						

Table 1 shows that there is a low positive relationship among personality traits of extraversion personality trait (EPT), agreeableness personality trait (APT), conscientiousness personality trait (CPT), neuroticism personality trait (NPT), openness to experience personality trait (OEPT) and Career aspiration among public SS2 students

in Edo South Senatorial District. The computed correlation using Pearson Product Moment Correlation output was: ($r = .10$), ($R^2 = .01$).

Research Question 2: What is the relationship between verbal aptitude test and Career aspiration among public SS2 students in Edo South Senatorial District?

Table 2: Correlation between verbal aptitude test and Career aspiration among public SS2 students in Edo South Senatorial District.

variable	M	SD	N	r	R ²	R ² (adjusted)	SE	Decision
Career Aspiration	8.94	4.58	360					
				.09	.01	.01	4.06	low Relationship
VAT	20.25	3.82						

Table 2 shows that there was a low positive linear relationship between verbal aptitude test and Career aspiration among public SS2 students in Edo South Senatorial District. The computed correlation using Pearson Product Moment Correlation output was: ($r = .09$), ($R^2 = .00$).

Hypotheses Testing

Hypothesis 1: There is no significant relationship among personality traits of extraversion personality trait (EPT), agreeableness personality trait (APT), conscientiousness personality trait (CPT), neuroticism personality trait (NPT), openness to experience personality trait (OEPT) and Career aspiration among public SS2 students in Edo South Senatorial District.

Table 3: Regression analysis among personality traits of extraversion personality trait (EPT), agreeableness personality trait (APT), conscientiousness personality trait (CPT), neuroticism personality trait (NPT), openness to experience personality trait (OEPT) and Career aspiration among public SS2 students in Edo South Senatorial District.

ANOVA					
Model	SS	df	MS	F	Sig
Regression	65.532	5	13.106	.787	.550
Residual	5897.998	354	16.61		
Total	5963.531	359			

Variable in the Equation					
Model	Unstandardized coefficient	Standardized coefficient			
	B	SEB	BETA	t	Sig
Constant	18.788	1.951		9.632	.000
EPT	-.067	.058	-.063	-1.160	.247
APT	.063	.059	.060	1.070	.286
CPT	.005	.054	.095	.086	.932
NPT	.030	.039	.042	.770	.442
OET	-.040	.041	-.054	-.968	.334

The table 7 above showed the regression analysis among personality traits of extraversion personality (EPT), agreeableness personality trait (APT), conscientiousness personality trait (CPT), neurotic personality trait (NPT), openness to experience personality trait (OEPT) and career aspiration among public SS2 students in Edo South Senatorial District. Testing the hypothesis at 0.05 level of significance. The $F = (.787: P \geq 0.05)$. The null hypothesis which states that there is no significant relationship between personality traits of extraversion personality (EPT), agreeableness personality trait (APT), conscientiousness personality trait (CPT), neuroticism personality trait (NPT), openness to experience personality trait (OEPT) and career aspiration among public SS2 students in Edo South Senatorial District was accepted. This is because the P-value of (.550) is greater than the alpha level of (0.05). Therefore, there was

no statistical significance among extraversion personality trait (EPT), agreeableness personality trait (APT), conscientiousness personality trait (CPT), neurotic personality trait (NPT), openness to experience trait (OET) and career aspiration among public SS2 students in Edo South Senatorial District in the regression model as indicated above in table 7. The beta weights of ($\beta = -.067; .063; .005; .030; -.040$) revealed the amount contributed by extraversion personality (EPT), agreeableness personality trait (APT), conscientiousness personality trait (CPT), conscientiousness personality trait (CPT), neuroticism personality trait (NPT), openness to experience personality trait (OEPT) on Career aspiration.

Hypothesis 2: There is no significant relationship between verbal aptitude test and career aspiration among public SS2 students in Edo South Senatorial District.

Table 4: Regression analysis of the relationship between verbal aptitude test and career aspiration among public SS2 students in Edo South Senatorial District.



ANOVA					
Model	SS	df	MS	F	Sig
Regression	45.147	1	45.147	2.73	.099
Residual	5918.383	358	16.532		
Total	5963.531	359			

Variable in the Equation					
Model	Unstandardized coefficient	Standardized coefficient			
	B	SEB	BETA	t	Sig
Constant	17.622	.470		37.474	.000
VAT	.077	.047	.087	1.653	.099

The above table 4 revealed regression analysis of the relationship between verbal aptitude test and career aspiration among public SS2 students in Edo South Senatorial District. Testing the hypothesis at 0.05 level of significance, the $F = (2.73: P \geq 0.05)$. The null hypothesis which states that there is no significant relationship between verbal aptitude test and career aspiration among public SS2 students in Edo South Senatorial District was accepted. This is because the P-value of (.099) is greater than the alpha level of (0.05). Therefore, there was no statistically significant relationship between verbal aptitude test and career aspiration among public SS2 students in Edo South Senatorial District in the regression model as indicated above in table 4. The beta weight of ($\beta = .077$) shows the amount contributed by verbal aptitude test on career aspiration.

DISCUSSION OF RESULT

The results in the hypothesis 1 revealed that there was no statistically significant relationship among personality traits of extraversion personality trait (EPT), agreeableness personality trait (APT), conscientiousness personality trait (CPT), neuroticism personality trait (NPT), openness to experience personality trait (OEPT) and Career aspiration among public SS2 students in Edo South Senatorial District. Personality traits could have considerable amount of influence in the career aspiration of students because one's nature would have determined the kind of things he/she admires in life and the kind of career to aspire towards. But the finding of this study was different in this perspective. This finding contradicts Anake, Adigeb and Bassey (2017) whose result indicated that personality traits of attitude and perception have a significant influence on career decision

among secondary school students. This finding also disagree with Alkheilil (2016) who found a significant relationship between personality traits and career aspiration in the most cases as explored in the results section. This finding disagrees with Kemboi et. al (2016) whose results indicated that there was a relationship between personality types, and career aspiration.

The result in hypothesis 2 showed that there was no statistically significant relationship between verbal aptitude tests and career aspiration among the students. In our modern world of today where students are exposed to communication in the social media at a very high level, they tend to improve in verbal analogies, comprehension, verbal deduction, sentence completion, Word Group, etcetera. Their level of understanding in the use of the English language for communication has improved. However, this may not translate to their level of knowledge in making career decision. This finding contradict Ekeke and Onukwufor (2021) whose study showed that aptitude test significantly predict science related career aspiration among secondary school students in Rivers State

CONCLUSION

Based on the finding, the following conclusions were drawn:

There was no significant relationship among personality traits of extraversion personality traits (EPT), agreeableness personality trait (CPT), conscientiousness personality trait (CPT), neurotic personality trait (NPT), openness to experience personality trait (OEPT) and Career aspiration among public SS2 students in Edo South Senatorial District.

There was no significant relationship between verbal aptitude tests and Career

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aspiration among public SS2 students in Edo South Senatorial District.

RECOMMENDATIONS

Based on the findings, the following recommendations were made that:

1. Government should employ career counsellors in all public schools in Edo South Senatorial District to guide the students in career decisions.
2. There should be a career day, at least once every term, to expose the students to different occupations in the world of work.
3. The students should be exposed to excursion in order to experience the nature of the career he or she is aspiring towards.
4. The students should be exposed to men and women that are successful in their chosen career in different fields of human endeavour. These could become mentors to the students in their aspiration towards a career.

REFERENCES

- Abdullah, A. (2017). Five-Factor Personality Traits as Predictor of Career Maturity. *Eurasian Journal of Educational Research*, 68, 151-165.
- Abdullahi, U., & Atsua, T. G. (2014). Assessment of vocational interest and career aspiration of senior secondary school students in Damaturu Metropolis, Yobe State, Nigeria. *Knowledge Review*, 31(2), 1-6.
- Ahmet, R. K., Seydi, A. S., Muhammet, F. Y., Simsek D., Ceyhan, Esra. And Fuad, Bakiogiu. (2016). Big five-personality trait and internet addiction: A metaanalytic review. *Computers in Human Behaviour*, 63, 35-40
- Alkheilil, A. H. (2016). The relationship between personality traits and career aspiration: A case study of secondary school students. *International Journal of Academic Research in Progressive Education and Development*, 5(2), 2226-6348.
- Anake, P. M., Adigeb, P. A., Bassey., & Patrick O. (2017). The Influence of Personality Traits on Career Decision

among Secondary School Student InYakurr Local Government Area Of Cross River State, Nigeria. *European Journal of Alternative Education Studies*, 2(1),139-151.

- Anusic, I., & Schimmack, U. (2016). Stability and change of personality traits, self-esteem, and well-being: introducing the meta-analytic stability and change model of retest correlations. *J. Pers. Soc. Psychol.* 110, 766–781. doi: 10.1037/pspp0000066>
- Baumert, A., Schmitt, M., Perugini, M., Johnson, W., Blum, G., Borkenau, P., et al. (2017). Integrating personality structure, personality process, and personality development. *Eur. J. Pers.* 31, 503–528. doi: 10.1002/per.2115.
- Corr, P. J., & Matthews, G. (2009). *The Cambridge handbook of personality psychology*. UK: Cambridge University Press.
- Domino, G., & Domino, M. L. (2006). *Psychological testing an introduction*. Cambridge University Press.
- Ekeke, M. I., & Onukwufor, J. N. (2021). Conformity and Aptitude as Predictors of Science Related Career aspiration Among Secondary School Students in Rivers State, Nigeria. *Advances in Social Sciences Research Journal*, 8(8). 119-129.
- Golsteyn, B., & Schildberg-Hörisch, H. (2017). Challenges in Research on Preferences and personality traits: Measurement, stability, and inference. *Journal of Economic Psychology*, 60, 1-6.
- Hall, D. T. (2006). *Careers in Organizations*. Pacific Palisades, CA, Goodyear.
- Kemboi, R. J. K., Kindiki, N., & Misigo, B. (2016). Relationship between Personality Types and Career aspirations of Undergraduate Students: A Case of Moi University, Kenya. *Journal of Education and Practice*, 7(3), 102-112.
- Mullola, S., Hakulinen, C., Presseau, J., de Porras, D. M. R., Jokela, M., Hintsala, T., & Elovainio, M. (2018). Personality traits and career aspirations among physicians in Finland: employment

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- sector, clinical patient contact, specialty and change of specialty. *MC Medical Education*, 18(52), <https://doi.org/10.1186/s12909-018-1155-9>
- Mursell, J. L., (2009). *Psychological Testing*. Longmans Green and Company, 2nd Edition.
- Ohadoma, M. (2014). *Determinants of career aspiration among secondary school students in Lagos State*. (Unpublished B.Tech.). Federal University of Technology, Minna, Niger State.
- Pässler, K., Beinicke, A., & Hell, B. (2015). Interests and intelligence: A meta-analysis. *Intelligence*, 50, 30–51. <https://doi.org/10.1016/j.intell.2015.02.001>
- Roczniowska, M. & Bakker, A. B. (2016). Who Seeks Job Resources, and Who Avoids Job Demands? The Link between Dark Personality Traits and Job Crafting. *The Journal of Psychology*, 150(8), 1-20.
- Widiana, H. S. (2012). Validitaskriteriasubtes EAS 4 ketelitian dan kecepatan visual. *Humanitas Indonesian Psychological Journal*, 6(2), 170–181.
- Wood, D., Gardner, M. H., and Harms, P. D. (2015). How functionalist and process approaches to behaviour can explain trait covariation. *Psychol. Rev.* 122, 84–111. doi: 10.1037/a0038423
- Zeigler-Hill, V., Vrabel, J. K., Sauls, D., and Lehtman, M. J. (2019). Integrating motivation into current conceptualizations of personality. *Pers. Individ. Differ.*, 147, 1–7. doi: 10.1016/j.paid.2019.04.019.