

# The Big Five Personality Traits and Attitude towards the Same Gender Relationships among University Students in Nairobi County, Kenya

Wambua Pius Muasa (PhD)

*Institute of Youth Studies, School of Arts and Social Sciences  
Tangaza University College, Catholic University of Eastern Africa*

**Abstract:** The objective this study was to investigate the relationship between the Big Five personality traits and attitude towards the same gender relationships among University students in Nairobi County, Kenya. The study employed a correlational research design using a simple random sampling technique. The study adopted a sample size of 294 number of participants. The data was collected using the Big Five Inventory Scale and Attitude towards Homosexuality Scale. The data was analyzed using regression analysis. The findings of the study reported only two personality traits had positive and significant predictive relationship with attitude towards the same gender relationships which were agreeableness ( $\beta=.513$ ,  $p<.05$ ) and conscientiousness ( $\beta=.326$ ,  $p<.05$ ). Agreeableness personality trait showed positive attitude to lesbians ( $\beta=.0275$ ,  $p\leq.05$ ) whereas those with conscientiousness personality trait showed positive attitude towards gay men ( $\beta=0.206$ ,  $p<.05$ ). On the other hand, extraversion, neuroticism and openness traits showed insignificant negative relationship with attitude towards the same gender relationships. The study recommends the future studies to replicate the same study with students from public universities in Nairobi Kenya to confirm the findings of this study. Also, future studies may consider using qualitative or mixed method approaches in order to have a wider understanding of influence of the Big Five personality traits on attitude towards the same gender relationships among the University students.

levels of emotional reactivity and low tolerance to stress. They experience challenges in their relationships with others because of inability to manage their negative emotions of depression, anxiety and anger. People with agreeableness trait have trustworthy in their interaction with others, they are considerate, kind, generous and they work in harmony and cooperation with others instead of competing with them. People with conscientiousness trait tend to be self-disciplined with high levels of self-control and ability in managing their emotions. They are orderly, punctual and manifest perfectionism and they strive for high achievements in career and other areas of their lives. Persons with trait of openness are accommodative and they allow people to be themselves without imposing their values in them. They are willing to learn new ideas and they are non-judgmental to others (Aleksandra, 2022).

Personality is considered to be complex and dynamic because it is formed as a result of interaction between genetic and environment and therefore, it can change across the lifespan. According to Rantanen and his Colleagues (2007), heritability and stability are two concepts that are used in explaining personality change across the lifespan. The genetic factor of the personality leads to identity and stability of the person's personality while the environment factors through social interactions makes an individual unique from others (Rantanen et al., 2007). Studies have found gender differences on personality where neuroticism and extroversion are more stable in men compared to their female counterparts whereas there is no difference in men and women in traits of openness to experience, agreeableness and conscientiousness (Rantanen et al., 2007).

Freud's psychosexual theory of development reinforced the belief that homosexuality is a condition that can be treated with therapeutic interventions. According to Freud people become gays or lesbians as a result of failure to solve the Oedipal and Electra conflicts with their parents during childhood and this leads them to channel their sexual energy toward the same gender rather than opposite gender (Freud, 1905). On the other hand, behaviourist psychologists believe that homosexual behaviour is learned during childhood and therefore, it can be unlearned (Levey, 1996). This belief that homosexuality can be treated has led some counsellors and

## I. INTRODUCTION

The Big Five model of personality is a model that was developed with an aim to understanding individual differences of psychologically healthy people in terms of their thinking, feeling and behaviour (Baumert et al., 2019). According to Fajkowska and Kreitler, (2018), traits are dimensions of personality that include intrapersonal and interpersonal differences of an individual person with other people. The Big Five model of personality is widely used across many languages and cultures and captures personality traits such as neuroticism, extroversion, openness to experience, agreeableness and conscientiousness (Allik et al., 2017). People who are extroverted are outgoing and tend to connect with others easily and people enjoy their company compared to those who are introverted. They are friendly people and demonstrate assertiveness in their interaction with others. They enjoy taking leadership responsibilities and people feel comfortable with them because they are lively and charming. People with neuroticism trait tend to manifest high

psychotherapists to formulate strategies such as conversion therapy to help homosexuals to alter their sexual orientation which has not been effective with many clients (Spitzer, 2003; Byrd & Nicolis, 2002).

With regard to attribution theory, attitudes about stigmatized behaviours such as homosexuality depend on the perception of people on what causes the behaviour. People seem to have a favourable or positive attitude towards certain behaviour, if they are convinced that the behaviour is attributed to uncontrollable rather than controllable factors. Behaviours that are perceived to have a genetic or physical cause are favoured more than stigmatized behaviours that are perceived to have been learned (Dijker & Kooman, 2003; Weiner, Perry, & Magnusson, 1998). People who attribute homosexual behaviour with genetic are likely to have a positive attitude towards the LGBT persons whereas those who believe homosexuality to be a learned behaviour, they are likely to have a negative attitude towards the LGBT persons.

Studies have found a link between the Big Five personality traits with sexual orientations (Allen & Walter, 2018; Bogaert et al., 2018). According to Allen and Walter (2018), openness to experience trait has been found to have high connection with LGBT persons. A meta-analysis study found there was insignificant positive relationship between openness to experience and sexual orientation and especially towards men compared to the women (Allen & Walter, 2018). A study by Bogaert and his Colleagues (2018) showed that persons with bisexual tendencies had scored high on openness to experience compared to their heterosexual counterparts. In addition, studies have shown that heterosexual women are more attracted to partners with traits of agreeableness and openness to experience contrary to men and lesbian women (Valentova et al., 2016). Since, studies have reported high levels of connection between openness to experience and agreeableness traits on homosexual orientation, the current study anticipated a positive attitude towards the same gender relationship among the participants scoring high in openness to experience and agreeableness compared to other personality traits.

A recent study by Aleksandra (2022) found insignificant relationship between neuroticism and homosexual orientation in gay men and a significant negative association among lesbians. Furthermore, a study conducted by Bogaert and his Colleagues (2018) found a slight difference on neuroticism scores between the lesbian women and gay men. The current study also expected that people score high in neuroticism to have negative attitude towards homosexuality because some earlier studies have shown that participants who scored high in neuroticism had negative attitude towards lesbian. Individuals scoring high in agreeableness and conscientiousness traits tend to respect the values of the society that helps them to avoid getting into relationships that are considered morally wrong (Roccas et al., 2002). Based on these earlier studies, the current study expected that participants who are going to score high in

agreeableness and conscientiousness traits are likely to have negative attitude towards the same gender relationships. A study conducted by Allen and Walter (2018) found a negative relationship between sexual infidelity and conscientiousness among the bisexual men. Individuals with conscientiousness trait were likely to be faithful in their marriage commitment (Bogg & Roberts, 2004). People who score high in conscientiousness trait tend to be anxious and stressed which is likely to make them be careful and hence not engage in risky behaviours. They have more conservative attitude towards sex which may lead them to have difficulty breaking the norms of the society.

A meta-analysis study conducted by Lippa (2005) found a significant positive relationship between openness to experience and homosexuality. Those who score high in openness to experience trait, they are likely to engage in homosexual behaviours. With regard to neuroticism, there was a positive relationship with homosexuality among women and a negative relationship among men. On agreeableness and conscientiousness traits, there was a negative association among men. However, there was a positive relationship with women (Lippa, 2008; Peixoto & Nobre, 2016).

In the last past 30 years, there is a big change on the attitude towards the same sex couples and premarital sex among the western cultures (Twenge, Sherman, & Wells, 2015). There is higher acceptance of the same sex relationships compared to the past (Mercer et al., 2013). There is development of liberal attitude towards the same sex relationship though there those who are considered to be conservative and still uphold the norms and traditions of their society. The relationship between personality and sexual orientation has been found to be different between men and women (Mercer et al., 2013). A study conducted by Aleksandra (2022) found that the participants who had scored higher in levels of openness to experience and low levels in conscientiousness and agreeableness had more liberal attitude towards sex. Likewise, the findings of the study found higher levels of openness to experience and lower levels of conscientiousness were associated with tendencies of homosexuality. In addition, scoring high in agreeableness was associated to homosexuality among women compared to their male counterparts. Though studies have shown there is a relationship between the Big Five personality traits and attitude towards the same gender relationship, there is lack of similar studies with University students in Kenya and therefore, the current study sought to fill this gap.

## II. METHODOLOGY

### *Research Design*

According to Orodho (2003) a research design is defined as the scheme, outline or plan that is used to generate answers to research problems. The study employed a correlational research design. The design is suitable for this study because it sought to investigate the relationship between the Big Five personality traits and attitude towards the same

gender relationship among University students in Nairobi County, Kenya.

#### *Population and Sampling*

The term population means the total number or aggregate of individuals, objects, or any other subject of concern which by virtue of common characteristics is of interest to the researcher and may lead to obtaining relevant information regarding the phenomenon under study (McLeod, 2019). The study target population was 1600 university students who were studying within Universities in Nairobi County, Kenya. The University students were drawn from the school of theology.

Orodho and Kombo (2002) define sampling as the process of selecting a number of individuals or objects from a population such that the selected group contains elements representative of the characteristics found in the entire group. The study employed simple random sampling. The sampling was suitable because it gives the participants equal chance to participate in the study. Through simple random sampling, a sample size of 310 university students was selected to participate in the study.

#### *Instrumentation*

The study employed a questionnaire in collecting data. The questionnaire had three parts. The first part of the questionnaire collected data on the demographic details of the participants which included: age, gender and level of education. The second part collected data on the Big Five personality traits using "The Big Five Inventory Scale", developed by John and Srivastava (1999). It contains 44 items that measures an individual's Big Five Factors (dimensions) of personality (Goldberg, 1993). Each of the factors is then divided into personality facets. The instrument measures five personality traits namely: extraversion, agreeableness, conscientiousness, neuroticism, and openness. Extroversion and neuroticism is measured by eight items, agreeableness and conscientiousness by nine items and openness is measured by ten items. For extroversion and neuroticism three items are reversed in each. For agreeableness and conscientiousness four items are reversed for each and for openness only two items that are reversed. Sixteen is the total number of items that are reversed. During data analysis the 16 items which were reversed required inverse scoring. The instrument requires the participants to choose the characteristic that fits them most in every item given. For example, "Do you agree that you are someone who likes to spend time with others?" The scores range from 1(disagree strongly) to 5 (Agree strongly).

The third part of the questionnaire was to collect data on attitude towards the same gender relationships. The study utilized "Homosexuality Attitude Scale". The scale was developed by Herek (1997). It is a likert scale that assesses people's stereotypes, misconceptions, and anxieties about homosexuals. The measure contains a uni-dimensional factor representing a favourable or unfavourable evaluation of

homosexuals. The instrument contains 20 statements of which 10 of the items are meant to assess attitude toward lesbians while the other 10 items are meant to assess the attitude toward gay men. The tool was appropriate for the study because previous studies have found differences in the attitudes of male and female heterosexuals toward homosexuality in relation to the gender of the respondents. Similar studies have also shown differences in the attitudes of heterosexuals toward gay men and lesbians in relation to the gender of target (Herek, 1988). The questionnaire is in the form of a 5-point Likert Scale, with scores ranging from 1 ("Strongly Agree") to 5 ("strongly disagree"). The score was analyzed using the total score. Seven items which are reversed required an inverse scoring. The higher scores meant that the participant had a more negative attitude toward homosexuality. The scale has excellent internal consistency ( $\alpha > .92$ ). The scale has a good test-retest reliability ( $r = .71$ ).

#### *Data Analysis*

Data collected was analyzed using descriptive statistics and regression analysis with Software Package for Social Sciences (SPSS) version 21. The results from descriptive statistics were presented with means, standard deviation and frequencies. Regression analysis was utilized to determine the relationship between the Big Five personality traits and attitude towards the same gender relationships among University students.

### III. RESULTS

The study sought to establish the relationship between the Big Five personality traits and attitude towards the same gender relationships among the University students in Nairobi County, Kenya. First, the study presented results on descriptive age of the participants, followed by the demographic variables of the participants and results on the objective of the study.

#### *Descriptive Statistics of Age*

To obtain the mean age of the participants, they were asked to indicate the range of their age. The age range was 20-30years; 31-40 years; 41-50 years; 51-60 years; and 61 years and above. Using descriptive statistics, the results are presented in table 1.

Table 1. Descriptive Statistics on Age of Participants

		M	SD
Age	20-30 yrs.	73.8	10.1
	31-40 yrs.	71.0	12.9
	41-50 yrs.	74.7	11.5
	51-60 yrs.	70.3	11.1
	Above 61 yrs.	70.8	15.8

Note<sup>5</sup>: N=294; M-Mean, SD-Standard Deviation.

The table 1 shows that participants between the age of 41-50 years had the highest mean (mean=74.7, SD=11.5)

followed by the participants with age of 20-30 years (mean=73.8, SD=10.1). The participants with age of 51-60 years had the least mean (mean=70.3, SD=11.1).

*Demographic Characteristics of the Participants*

The demographic variables of age, gender, and educational level of participants were taken into account in this study. Table 2 shows the results of the age, gender and education level distribution of the participants in the current study.

Table 2. Demographic variables of the participants

Variable		Frequency	Percent
Age	20-30 yrs.	139	47.3
	31-40 yrs.	103	35.0
	41-50 yrs.	40	13.6
	51-60 yrs.	7	2.4
	Above 61 yrs.	5	1.7
Gender	Male	170	57.8
	Female	124	42.2
Education level	Certificate	31	10.5
	Diploma	67	22.8

	Bachelors' degree	164	55.8
	Masters' degree	27	9.2
	PhD	5	1.7

Note<sup>2</sup>: N=294.

Out of 310 respondents, 294 filled the questionnaires. The majority (47.3%) of the participants who filled the questionnaires were between 20-30 years, 35.0% between 31-40 years, 13.1% between 41-50 years whereas 4.1% were 50 years as shown in Table 2. The sample consisted of more than 57.8% males and 42.2% females showing a high level gender disparity of university students. Table 2 also indicates that the majority of the participants, 55.8% of the respondents had Bachelor's degrees, 33.3% had Diploma and Certificates education levels whereas 10.9% had Post-graduate degrees.

*Relationship between the Big Five Personality Traits and Attitude towards the Gender Relationship among University Students*

To establish the relationship between the Big Five personality traits and attitude towards the same gender relationships among University students in Kenya, a regression analysis was conducted and the results are presented in table 3.

Table 3. Regression Analysis Checking for the Relationship(S) Between the Big Five Personality Traits and Attitude towards the same Gender Relationships

Independent variables	Attitudes towards homosexuality		Attitudes towards lesbians		Attitudes towards gay men	
	B	p-value	B	p-value	B	p-value
(Constant)	64.513		32.713		31.8	
Extraversion	-0.18	0.221	-0.093	0.273	-0.087	0.295
Agreeableness	0.513	0.021*	0.275	0.034*	0.108	0.318
Conscientiousness	0.326	0.035*	0.12	0.18	0.206	0.019*
Neuroticism	-0.041	0.801	-0.043	0.641	0.003	0.976
Openness	-0.24	0.15	-0.16	0.096	-0.08	0.397
R <sup>2</sup>	0.044		0.033		0.039	
Adjusted R <sup>2</sup>	0.027		0.016		0.022	
VIF	1.39		1.39		1.39	
D-W statistic	1.60		1.71		1.75	

Note<sup>7</sup>: N=294; Significance at p<.05; B- Unstandardized regression coefficient; Adjusted R<sup>2</sup> measures the amount of variance accounted for by the model. Variance Inflation Factor (VIF) measures collinearity of the predictor factors (regression analysis)

The two personality traits that showed positive and significant predictive relationship with attitude to homosexuality were agreeableness ( $\beta=.513$ ,  $p<.05$ ) and conscientiousness ( $\beta=.326$ ,  $p<.05$ ). Participants with agreeableness trait showed positive attitude to lesbians ( $\beta=.0275$ ,  $p<.05$ ) whereas those with conscientiousness trait showed positive attitude towards gay men ( $\beta=0.206$ ,  $p<.05$ ). On the other hand, extraversion, neuroticism and openness to experience traits showed insignificant negative relationship with attitude towards the same gender relationships. The results also indicate that the combined effect of the big 5 personality traits attitude towards the same gender

relationships account only for 2.7% of the changes/variations in attitude towards homosexuality (Adjusted R<sup>2</sup>=0.027). The hypothesis that there is positive significant relationship between the Big Five personality traits and attitude towards the same gender relationships among university students was partially supported at 95% confidence.

IV. DISCUSSION

The study was to establish the relationship between the Big Five personality traits and attitude towards the same gender relationship among University students in Nairobi County, Kenya. The findings indicates that two personality

traits that showed positive and significant predictive relationship with attitude to homosexuality were agreeableness ( $\beta=.513$ ,  $p<.05$ ) and conscientiousness ( $\beta=.326$ ,  $p<.05$ ). Participants with agreeableness trait showed positive attitude to lesbians ( $\beta=.0275$ ,  $p<.05$ ) whereas those with conscientiousness trait showed positive attitude towards gay men ( $\beta=0.206$ ,  $p<.05$ ). The findings of this study contradicted the findings of Roccas et al. (2002) who found that individuals scoring high in agreeableness and conscientiousness tend to respect the values of the society that helps them to avoid getting to relationships that are considered morally wrong. Surprisingly, the participants scoring high in personality traits of agreeableness and conscientiousness had a positive attitude towards the same gender relationships compared to earlier studies. According to Allen and Walter (2018), people who score high in conscientiousness tend to be anxious and stressed which is likely to make them be careful and hence not engage in risky behaviours. They have more conservative attitude towards sex which may lead them to have difficulty breaking the norms of the society. Due to conservative attitude towards sex and upholding the norms and values of the society, the study was expecting those scoring high in conscientiousness trait to have a strong negative attitude towards the same gender relationships. However, it is important to note that the relationship between agreeableness and conscientiousness traits on attitude towards the same gender relationships was not very strong.

The study found that extraversion, neuroticism and openness traits showed insignificant negative relationship with attitude towards the same gender relationships. The results also indicate that the combined effect of the big 5 personality traits attitude towards homosexuality account only for 2.7% of the changes/variations in attitude towards homosexuality (Adjusted  $R^2=0.027$ ). The study findings seems to agree with findings of Allen and Walter (2018), who found people with neuroticism trait tend to manifest high levels of emotional reactivity and low tolerance to stress. These characteristics seem to contribute to negative attitude towards the same gender relationship. The findings of this study are in agreement with recent study by Aleksandra (2022) who found insignificant relationship between neuroticism and homosexual orientation in gay men and a significant negative association among lesbians. Moreover, the findings were supported by the findings of Bogaert and his colleague (2018) who found a slight difference on neuroticism scores between the lesbian women and gay men.

The findings of this study that those participants with openness to experience traits had a negative attitude towards the same gender relationship was in disagreement with argument of Aleksandra (2022) that people with trait of openness to experience are curious and willing to experiment with new ideas. The study was expecting people scoring high in openness to experience to have positive attitude towards the same gender relationships. However, it was contrarily to the findings of this study. The findings of this study on regard to people with openness trait having a negative attitude towards

homosexuality was not in line with the findings of several researchers (Allen & Walter, 2018; Bogaert et al., 2018) who found a link between the Big Five personality traits with sexual orientations. The openness to experience trait has been found to have high connection with LGBT persons (Allen & Walter, 2018). Also, the findings contradicted the findings of a meta-analysis study which found there was insignificant positive relationship between openness to experience and sexual orientation and especially towards men compared to the women (Allen & Walter, 2018). Based on the previous studies, the current study anticipated positive attitude towards the same gender relationship among the participants scoring high in openness to experience and agreeableness compared to other personality traits. However, this was not supported by the findings.

## V. CONCLUSION

The study concludes that there was a positive and significant predictive relationship between personality traits of agreeableness and conscientiousness on attitude towards the same gender relationship where agreeableness trait showed a positive attitude towards lesbians and conscientiousness trait showed positive attitude towards gay men. On the other hand, the personality traits of extraversion, neuroticism and openness showed insignificant negative relationship with attitude towards the same gender relationships. The hypothesis that there is positive significant relationship between the Big Five personality traits and attitude towards the same gender relationships among university students was partially supported at 95% confidence. The study recommends the future studies to replicate the same study with students from public universities in Nairobi to confirm the findings of this study. Also, future studies may consider using qualitative or mixed method approaches in order to have a wider understanding of influence of the Big Five personality traits on attitude towards the same gender relationships among the University students in Kenya.

## REFERENCES

- [1] Aleksandra Rogowska, Magdalena Tofel, Barbara Zmaczyńska-Witek & Zofia Kardasz .(2022). The relationship of number of sexual partners with personality traits, age, gender and sexual identification. *Psychology & Sexuality*, 13(2), 147-164, DOI: 10.1080/19419899.2020.1752786.
- [2] Allen, M. S., & Walter, E. E. (2018). Linking big five personality traits to sexuality and sexual health: A meta-analytic review. *Psychological Bulletin*, 144(10), 1081–1110. <https://doi.org/10.1037/bul0000157>
- [3] Allik, J., Church, A. T., Ortiz, F. A., Rossier, J., Hřebíčková, M., de Fruyt, F., McCrae, R. R. (2017). Mean profiles of the NEO personality inventory. *Journal of Cross-cultural Psychology*, 48(3), 402–420. <https://doi.org/10.1177/0022022117692100>
- [4] Allport, G., Dijker, A. J., & Kooman, W. (2003). Extending Weiner's attribution-emotion model of stigmatization of ill persons. *Basic and Applied Social Psychology*, 25, 51-68.
- [5] Baumert, A., Schmitt, M., & Perugini, M. (2019). Towards an explanatory personality psychology: Integrating personality structure, personality process, and personality development. *Personality and Individual Differences*, 147, 18–27. <https://doi.org/10.1016/j.paid.2019.04.016>.

- [6] Bogaert, A. F., Ashton, M. C., & Lee, K. (2018). Personality and sexual orientation: extension to asexuality and the hexaco model. *Journal of Sex Research*, 55(8), 951–961. <https://doi.org/10.1080/00224499.2017.1287844>
- [7] Bogg, T., & Roberts, B. W. (2004). Conscientiousness and health-related behaviors: A meta-analysis of the leading behavioural contributors to mortality. *Psychological Bulletin*, 130(6), 887–919. <https://doi.org/10.1037/0033-2909.130.6.887>
- [8] Byrd, A. D., & Nicole, J. (2002). A meta-analytic review of the treatment of homosexuality. *Psychological Reports*, 90, 1139–1152.
- [9] Fajkowska, M., & Kreitler, S. (2018). Status of the trait concept in contemporary personality psychology: are the old questions still the burning questions? *Journal of Personality*, 86(1), 5–11. <https://doi.org/10.1111/jopy.12335>
- [10] Freud, S. (1905). Three essays on the theory of sexuality. *Sex Roles*, 7, 125–245.
- [11] Herek, G. M. (1988). Heterosexuals' attitudes toward lesbians and gay men: Correlates and gender differences. *The Journal of Sex Research*, 25, 451–477.
- [12] LeVay, S. (1996). *Queer science: The uses and abuses of scientific research on homosexuality*. MA: MIT Press.
- [13] Lippa, R. A. (2005). Sexual orientation and personality. *Annual Review of Sex Research*, 16, 119–153.
- [14] Lippa, R. A. (2008). Sex differences and sexual orientation differences in personality: Findings from the BBC internet survey. *Archives of Sexual Behavior*, 37, 173–187.
- [15] Matthews, G., Deary, I. J., & Whiteman, M. C. (2003). *Personality traits* (2nd ed. ed.). Cambridge University Press.
- [16] McLeod, S. A. (2019). Sampling methods. *Simply Psychology*. <http://www.simplypsychology.org/sampling.html>
- [17] Herek, G. M. (1984). Attitudes toward lesbian and gay men: A factor-analytic study. *Journal of Homosexuality*, 10(1–2), 39–51. doi:10.1300/J082v10n01\_03
- [18] Mercer, C. H., Tanton, C., Prah, P., Erens, B., Sonnenberg, P., Clifton, S., Johnson, A. M. (2013). Changes in sexual attitudes and lifestyles in Britain through the life course and over time: findings from the national surveys of sexual attitudes and lifestyles (NATSAL). *Lancet*, 382(9907), 1781–1794. [https://doi.org/10.1016/S0140-6736\(13\)62035-8](https://doi.org/10.1016/S0140-6736(13)62035-8)
- [19] Orodho, A. J. (2003). *Essentials of educational and social sciences research methods*. Nairobi: Masola Publisher.
- [20] Orodho, A. J., & Kombo, D. K. (2000). *Research methods*. Nairobi: Kenyatta University.
- [21] Peixoto, M. M., & Nobre, P. (2016). Personality traits, sexual problems, and sexual orientation: An empirical study. *Journal of Sex & Marital Therapy*, 42, 199–213.
- [22] Rantanen, J., Metsäpelto, R.-L., Feldt, T., Pulkkinen, L., & Kokko, K. (2007). Long-term stability in the big five personality traits in adulthood. *Scandinavian Journal of Psychology*, 48(6), 511–518. <https://doi.org/10.1111/j.1467-9450.2007.00609.x>
- [23] Roccas, S., Sagiv, L., Schwartz, S. H., & Knafo, A. (2002). The big five personality factors and personal values. *Personality & Social Psychology Bulletin*, 28(6), 789–801. <https://doi.org/10.1177/0146167202289008>
- [24] Schurink, W. J. (2005). *Lecture thirteen: evaluating qualitative research*. Johannesburg: Department of Human Resource Management, University of Johannesburg.
- [25] Spitzer, R. L. (2003). Can some gay men and lesbians change their sexual orientation? Participants reporting a change from homosexual to heterosexual orientation. *Archives of sexual behavior*, 32(5), 403–417.
- [26] Twenge, J. M., Sherman, R. A., & Wells, B. E. (2015). Changes in American adults' sexual behavior and attitudes, 1972–2012. *Archives of Sexual Behavior*, 44, 2273–2285.
- [27] Valentova, J. V., Štěrbová, Z., Bártová, K., & Varella, M. A. C. (2016). Personality of ideal and actual romantic partners among heterosexual and non-heterosexual men and women: A cross-cultural study. *Personality and Individual Differences*, 101, 160–166. <https://doi.org/10.1016/j.paid.2016.05.048>