

A Correlational Study between the Big Five Personality Traits and Plagiarism

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Abstract:

An advent of electronic media has increased plagiarism. People around the world are relying on the vast number of data available on internet. This paves an easy road towards plagiarism. It has now entered in to the different areas of life and affects an intellectual growth of the people. The current study is a comprehensive study of plagiarism in relation to the five factor model of personality. Data was collected from the University of Karachi. Students from different departments of social sciences were added into the final sample. 231 students participated in this study. The results of this study were analyzed through correlation analysis technique. Results showed that plagiarism was positively related with agreeableness, conscientiousness, extraversion and openness to experience. No statistically significant relationship was found between plagiarism and neuroticism. The findings were further discussed in relation with the Pakistani context.

Keywords: Plagiarism, Agreeableness, Conscientiousness, Extraversion, Openness to experience, neuroticism.

Introduction:

Plagiarism is as old as the writing. Our history has been dominated by the perspectives and these perspectives played an important role in discoveries. The word plagiarism was coined in 17th century but it didn't get much attention and writers continued to imitate each other. This imitation was rewarded and considered a form of respect. In 18th century mass production of books started to become a part of literary world. In this scenario plagiarism gained attention. People started thinking differently and different questions were raised. Copyrights at that time were acknowledged and public attitudes regarding it were completely changed. With an advent of internet and easy availability of material, plagiarism increases. Hence plagiarism is viewed differently in different cultures (Park, 2003).

Scientific knowledge is very much important for the growth of any country. Our world is rapidly changing and new technologies are evolving. Many scientists around the world in different fields are constantly working to bring change in present world. In these circumstances we need strong and intellectual people to help us move forward and to work side by side with the new technologies. Plagiarism and copy paste syndrome is the biggest hurdle in the process. It is like a slow poison which is eating our essentials and killing thousands of our versatile minds simultaneously. Developing countries today are struggling to match their development with the developed countries. The most vital instrument needed for the development is education. The quality of education decides the growth of any country and plagiarism is hindering the process of development.

A scientific research based its foundations on originality. Science does not allow any biases and copied material in it. Before starting any research report or project a clear and thorough review of literature is done. It helps us to explore new dimensions of topic and provides us the information that how different people have already worked on the topic. This way we get new insights and choose a proper research methodology for our clearly defined objectives. Data is then collected to the relevant people to meet our research requirements. After data collection proper calculations and analyses help us to finalize our results (Masic, 2014). These results play an important part in scientific community. Results are evaluated and communicated with others. This way new knowledge is added in the scientific research which helps people in understanding that particular topic.

Research does not only help student but planners and different organizations also get benefit from it. Plagiarism in this whole process violates the basic requirements of science. Copying also leads to conflicting or erroneous results (Masic, 2014). Incorrect research methodologies, flaws in data collection, copy pasting in research and inaccurate results is the corruption in the scientific research. Through plagiarism the quality of scientific work produce by an individual or organization gets affected and a whole community suffers from it. Google and other web searching engines are growing rapidly. It does not only provide us with the information we need but it also closely observes the individual behaviors.

Today it is becoming more powerful than ever because of the usage and manipulation of data they have. They are now becoming a part of the power game in the world (Kulathumaiyer&Balke, 2006). Considering these scenarios, it is also a threat to the information world. Information or knowledge itself is not only important but how people acquire it and use it is equally important. Plagiarism corrupts the knowledge and copy-paste syndrome paves the road to plagiarism. There are so many techniques available for plagiarism and not every software is capable of detecting it. There are different software or techniques available on internet which can provide synonyms and change some words from the original words. Unpublished researches can also play their part in plagiarism.

Plagiarism can be defined in the following points (Maurer, Kappe and Zakka, 2006; Liddell, 2003; Fusch, Ness, Booker and Fusch, 2017; Alzahrani, Salim & Abraham, 2012).

- Copying exact words of other people.
- Copying ideas of other people and presented them as your own.
- Not putting quotation marks on the text which you have borrowed from other sources.
- Improper references of the sources. Sources might not even exist.
- Failed to acknowledge the source which you have mentioned in your work.
- Copying bits and pieces of other's work without citation and references.
- Changing words but copying the main idea of paragraphs without giving credits.
- Taking or stealing other's work without their permission.
- Taking ideas and words from multiple sources and presenting it as your own without acknowledging the sources.
- Purchasing or asking someone else to write a paper then passing it on as your own work.
- Translating a paper or paragraphs from foreign language and presenting it as your own.

Literature Review:

The five factor model is the highly accepted and popular model. It is used to study personality across the world. The universality of a model is ensured by its proponents and many other researchers after them have successfully used it in their research. It consists of a trait structure in which traits were divided into five major categories (Cherry, 2019). These five factors are openness to experience, conscientiousness, extraversion, agreeableness and neuroticism.

Conscientious individuals are trustworthy, efficient, determined, focused and disciplined. They have goals for future and are motivated enough to achieve them (de Bruin & Rudnick, 2007). Through proper time management and planning they move towards their destination. According to the study of Eshet, Grinautski, Paled, Barczyk, (2014) conscientiousness is negatively related to academic dishonesty in online courses. These individuals are fully aware of the consequences of their actions therefore they adopt socially acceptable ways to achieve their goals. Siaputra (2012) worked on the academic profiles of plagiarists. According to his study procrastination and low achievement motivation are the predictors of plagiarism and plagiarists have low levels of

conscientiousness. In another study on cyber plagiarism it is proved that non cheaters have high level of conscientiousness. That means that low level of conscientiousness is the predictor of academic cheating (Correa, 2017).

Conscientiousness is also positively related to academic achievement and success (Florin, Stanescu, 2013). These individuals carry positive work values and avoid dishonest acts. They make ethical decisions in business and are honest in academia (Bratton, Strittmater, 2013). Conscientious students concentrate on their goals and make proper planning to achieve them. They move with organized planning and therefore prepare for their exams and assignments (Giluk, Postlethwaite, 2014). Plagiarism is also a form of academic dishonesty and is considered as white collar crime. Wilks, Cruz and Sousa (2016) discussed plagiarism as a white collar crime and they supported their argument with wide literature of criminology. According to their study conscientiousness is negatively related to the inclination to plagiarism.

Agreeable individuals are characterized by their warm heartedness and kindness. They value relationships in their lives and avoid conflict in every situation. These individuals know the potential outcomes of academic dishonesty not only to their own selves but also to other students. Grades help students in academia and also in professional life. Therefore they avoid cheating and other dishonest acts in academia to maintain relationships and trust (Giluk, Postlethwaite, 2014). Due to their sincerity and genuine concern for others they are less likely to involve in dishonesty and plagiarism (Florin, Iorga, 2013). Agreeable individuals are good in creating and maintaining relationships. They believe in teamwork and unity and follow societal norms and rules to achieve their goals. With this rationale Eshet, Grinautski, Paled and Barczyk (2014) showed that agreeableness is negatively related to academic dishonesty in online courses.

Agreeableness is also related to academic performance (Chowdury, Amin, 2006). Agreeable students care about the greater good for all and through cooperation and honesty they work for it. In another study Wilks, Cruz and Sousa (2016) showed that agreeableness is negatively related to the inclination towards plagiarism. Agreeable individuals focus more on relationships and believe in sharing knowledge. Correa (2017) also claimed that agreeableness is negatively related to the cyber plagiarism but his results were against it.

Individuals with high level of openness to experience are rational, curious, critical and intelligent. These individuals value knowledge and learning therefore they are less likely to incline towards cheating (Eshet, Grinautski, Paled, Barczyk, 2014). It is also negatively related to cyber plagiarism (Correa, 2017). Students who have high level of openness to experience cherish new ideas and students who do not welcome new and unique ideas are more likely to involve in plagiarism (Florin, Iorga, 2013). Hoseinifar, et al (2011) conducted a study to find out a relation between creativity and big five personality traits. According to this study openness to experience is the positive predictor of creativity. Creative people look beyond everything to find out the solutions of the problems and to introduce new and original ideas.

There is a study which has proved relationship between creativity and dishonesty. Creative people always have justification for everything they do and they also rationalize their dishonesty (Gino, Ariely, 2012). This trait has not received much attention in previous researches. There are mixed results regarding the openness to experience and academic dishonesty. Some researchers have found positive relationship while others proved negative relationship. There are studies which show no relationship between openness to experience and academic dishonesty (Giluk, Postlethwaite, 2014; Wilks, Cruz, Sousa, 2016). In present study we are considering a negative relationship between openness to experience and plagiarism.

Individuals high in extraversion are social, energetic, determined and open in nature. These people are excited about the things in general. This excitement seeking element make them see risks differently and challenging. Extraversion has different facets and its excitement seeking facet has been linked to dishonesty and cheating (Giluk, Postlethwaite, 2014). Florin and Iorga (2013) conducted a study on personality traits and academic dishonesty. They have also shown the relationship between excitement seeking and dishonesty. Extroverts are impulsive and are unable to exercise self-control in most of the situations. This tendency might lead them to involve in dishonesty and cheating (Eshet, Grinautski, Paled, Barczyk, 2014).

Sensation seeking is also linked with extraversion. These individuals are more likely to cheat because cheating is a risky behavior and they will do it for excitement (Miller, Murdock, Anderman, Poindexter, 2007). Mixed results are found in literature regarding extraversion and plagiarism. There are studies which have shown positive relation while others have proved negative relationship (Correa, 2017) and some have proved no significant relationship (Wilks, Cruz, Sousa, 2016). In this study we are assuming positive relationship between extraversion and plagiarism.

Neurotic individuals are characterized by their negative emotions. They feel depressed, anxious and doubtful. Their mood changes constantly and they carry out their impulses without rationality (Giluk, Postlethwaite, 2014). Studies have shown that people high in neuroticism use internet for their academic activities and it is positively related to cyber plagiarism (Correa, 2017). Another study has proved positive relationship between neuroticism and academic dishonesty. Neuroticism has different facets and some of them are related to academic dishonesty. People who are impulsive and frustrated easily are more likely to engage in unethical academic behavior. Further students who are depressed and do not have hope for better future are also likely to choose unethical ways, while there is no relationship between anxiety and unethical academic behavior (Florin, Iorga, 2013). In online courses individuals who are emotionally stable (opposite of neuroticism) are less likely to involve in dishonesty (Eshet, Grinautski, Paled, Barczyk, 2014). These individuals deal stressful conditions with their positive energy and hope. This study assumes positive relationship between neuroticism and plagiarism.

Hypotheses:

- Higher the level of conscientiousness lower will be the plagiarism.

- Higher the level of agreeableness lower will be the plagiarism.
- Higher the level of openness to experience lower will be the plagiarism.
- Higher the level of extraversion higher will be the plagiarism.
- Higher the level of neuroticism higher will be the plagiarism.

Methods and Procedure:

This quantitative survey research is explanatory in nature. Data was collected from University of Karachi. The present study has used stratified sampling in it. The list of students was taken from the university. Strata were formed on the basis of different departments in the university. First it was divided in two major disciplines social sciences and natural sciences, then it was further divided in to two groups; students who do thesis and students who were not required to submit thesis at the end of their degree. For the final sample researchers have selected social sciences departments in which thesis/research is mandatory for a degree and only final year students were added into the sample because they have some knowledge about plagiarism.

The big five personality variables were measured by the big five inventory scale. Oliver P. John has created this inventory and it is publically available for researchers. Plagiarism is measured by plagiarism survey used by Hosny and Shameem (2014). 251 questionnaires were distributed and 241 were returned. Out of 241 only 10 were incomplete so the final 231 were selected for analysis. Data analysis was performed through SPSS. The frequency tables of the demographic profile and scales for six constructs namely; plagiarism, agreeableness, conscientiousness, extraversion and openness to experience were also analyzed. Correlation statistical technique was used to test the relationship between plagiarism and five constructs in five factor personality model.

Discussion of the Findings & Results:

TABLE 1

Characteristics of Subjects (N = 231)

INDICATORS	FREQUENCY	PERCENT	CUMULATIVE PERCENT
MEDIUM OF EDUCATION IN MATRICULATION			
English	181	78.35	78.35
Urdu	48	20.77	99.12
others	2	0.86	99.98
Total	231	99.98	
MEDIUM OF EDUCATION IN CURRENT COURSES			
English	157	67.7	68.0
Urdu	71	30.6	98.7
others	3	1.3	100.0

Total	231	99.6	
EASE IN LANGUAGE			
English	66	28.4	28.6
Urdu	161	69.4	98.3
Others	4	1.7	100.0
Total	231	99.6	
LEVEL IN EXTRAVERSION			
Low	5	2.16	2.16
Medium	194	83.98	86.14
High	32	13.85	99.99
Total	231	99.99	
LEVEL INCONSCIENTIOUSNESS			
Low	04	1.73	1.73
Medium	115	49.78	51.51
High	112	48.48	99.99
Total	231	99.99	
LEVEL INNEUROTICISM			
Low	7	3.03	3.03
Medium	142	61.47	64.50
High	82	35.49	99.99
Total	231	99.99	
LEVEL INOPENNESS TO EXPERIENCE			
Low	13	5.62	5.62
Medium	128	55.41	61.03
High	90	38.96	99.99
Total	231	99.99	
LEVEL IN AGREEABLENESS			
Low	03	1.29	1.29
Medium	92	39.82	49.34
High	136	58.87	99.98
Total	231	99.98	
LEVEL IN PLAGIARISM			
Low	79	34.19	34.19
Medium	111	48.05	82.24
High	41	17.74	99.98
Total	231	99.98	

An analysis of the demographic variables shows that 84% students who participated in this study were females and 16% were males. 78% respondents who took part in this study had English as a medium of education in matriculation while 20% had Urdu and only 2 respondents had chosen other languages as their medium of education in matriculation. The table shows that 68% respondents have taken their current courses in English, 31% have chosen their courses in Urdu

and 3 respondents have their courses in other language. 28% people in this study felt comfortable with English, 69% people were comfortable with Urdu and 2% were comfortable in other languages.

The variables taken in the study were dealt as scale variables but for the purpose of data representation researchers have made categories to show the levels of each variable. Table 1 shows that 84% of respondents were moderately extroverts and 14% were highly extroverts in the extraversion continuum. Around 50% of respondents considered themselves as moderately conscientious while 48% were highly conscientious individuals. 61% of respondents considered themselves as moderately neurotic and 35% were highly neurotic. Level of openness to experience was low in 5% of respondents, moderate in 55% and high in 39% of respondents. The table indicates that 59% of the respondents considered themselves as highly agreeable while 40% were moderately agreeable. Level of plagiarism is found low in 34% of respondents, moderate in 48% of respondents were high in 18% of respondents.

TABLE 2

Pearson correlation between plagiarism and personality variables

		Plagiarism	Extraversion	Openness to experience	Agreeableness	Conscientiousness	Neuroticism
Plagiarism	Pearson Correlation	1	.154**	.191**	.259**	.113*	-.029
	Sig. (1-tailed)		.010	.002	.000	.044	.332
	N	230	230	230	230	230	230
Extraversion	Pearson Correlation	.154**	1	.268**	.194**	.345**	-.356**
	Sig. (1-tailed)	.010		.000	.002	.000	.000
	N	230	231	231	231	231	231
Openness to experience	Pearson Correlation	.191**	.268**	1	.289**	.359**	-.129*
	Sig. (1-tailed)	.002	.000		.000	.000	.025
	N	230	231	231	231	231	231
Agreeableness	Pearson Correlation	.259**	.194**	.289**	1	.337**	-.040
	Sig. (1-tailed)	.000	.002	.000		.000	.274
	N	230	231	231	231	231	231
Conscientiousness	Pearson Correlation	.113*	.345**	.359**	.337**	1	-.366**
	Sig. (1-tailed)	.044	.000	.000	.000		.000
	N	230	231	231	231	231	231

	N	230	231	231	231	231	231
Neuroticism	Pearson	-.029	-.356**	-.129*	-.040	-.366**	1
	Correlation						
	Sig. (1-tailed)	.332	.000	.025	.274	.000	
	N	230	231	231	231	231	231

** . Correlation is significant at the 0.01 level (1-tailed).

* . Correlation is significant at the 0.05 level (1-tailed).

The table 2 summarizes the results of correlation analysis. The second cell of the first row shows the positive and statistically significant relationship between plagiarism and extraversion ($r=0.154$, $N= 230$, $p= 0.020$), H_4 is accepted. The third cell shows the positive and statistically significant relationship between plagiarism and openness to experience ($r=0.191$, $N=230$, $p= 0.004$), H_3 is rejected. The relatively strong and statistically significant relationship is found between plagiarism and agreeableness ($r= 0.259$, $N= 230$, $p= 0.000$), H_2 is rejected. The positive but weak relationship is found between plagiarism and conscientiousness ($r=0.113$, $N=230$, $p= 0.87$), H_1 is rejected. An extremely weak and statistically insignificant relationship is found between plagiarism and neuroticism ($r= -0.029$, $N=230$, $p= 0.664$), H_5 is rejected.

There is a positive and statistically significant relationship found between plagiarism and agreeableness. Agreeable individuals have pleasant personality. They try to blend in with their surroundings. In Pakistan people teach their children to value relationships and collectivist culture is practiced here. Relationships are viewed and valued differently in our culture. As table 1 suggests that most of the people had chosen English as a medium of education in their matriculation and table 3 shows that most of the people feel comfortable while sharing their ideas in Urdu but despite of it most of them have taken their current courses in English. This shows us that we still have a long way to go to overcome language barrier in our educational system.

Everything on research is available in English. There are very few books available in Urdu. In schools and colleges students get good marks by imitating teachers. These students when enter in universities face different dilemmas. Expectations of the teachers are different in universities. Research is introduced to them and the concept of plagiarism is very new and alien concept to them. Students who are extroverts, agreeable, conscientious and are open to experience are creative (Hoseinifar, et al., 2011) and there is a relationship between creativity and plagiarism (Gino & Ariely, 2012). Students here are agreeable and creative but they don't have resources to flourish their research skills and critical thinking. Therefore they go for short cuts like plagiarism and they justify it.

Ahmed (2017) has also talked about the quality of researchers and teachers in Pakistan. According to him the supervisors assigned to the students are incompetent in research. They do not know the proper research and have limited knowledge in statistics. It is very difficult for a student to explore the world of research in this setting. The relationship between extraversion

and plagiarism can also be explained by his article. Extroverts are not shy and they ask for help when they need it but the helpers themselves have very limited knowledge in this domain. Hence in order to maintain their sociability they plagiarized. Extroverts follow mainstream culture to remain the part of a society. They love appreciation and appraisal that is why they are more prone towards plagiarism. This finding is consistent with two studies: Miller, Murdock, Anderman and Poindexter (2007); Florin and Iorga (2013). Openness to experience is a personality trait which makes individual curious about new ideas and experiences. The positive relationships between plagiarism and openness to experience and conscientiousness are relatively new findings but considering the environment of research in Pakistan it is not an unexpected one.

There are number of reasons behind plagiarism but lack of research writing is one of them (Rathore, Waqas, Zia, Mavrinac & Farooq 2015). In Pakistan most of the students have favorable attitude towards plagiarism and shallow knowledge of plagiarism exists here (Rathore et al, 2015; Shirazi, Jafarey & Moazam, 2010). Lack of knowledge and ignorance is one of the main reasons behind plagiarism. The research conducted by Mansoor and Ameen (2015) also shows that all 85 universities recognized by HEC are complying with plagiarism policies and 77 of them use Turnitin to detect plagiarism and similarity index. According to him, teachers spread awareness among students by giving them advise in class only. This is not enough in our setting and we need other ways to increase knowledge and awareness about plagiarism in Pakistan.

This study also seconds the other studies conducted in Pakistan that plagiarism occurs due to lack of knowledge and most of it is unconscious. Plagiarism is spreading in other fields also. This makes it even more serious issue as it threatens the integrity of people (Fusch, Ness, Booker, & Fusch, 2017). Therefore we have to tackle this issue in Pakistan. The present study's findings were also supported by the study of Ramzan, Munir, Siddique and Asif (2012), according to them most graduate and post graduate students come under the pressure of society where grades define intelligence and employment level. This pressure sometimes leads towards unethical means of achieving goals like plagiarism. The findings that agreeableness, extraversion, conscientiousness and openness to experience were positively related to plagiarism were due to the academic culture of Pakistan, where most of the students were not even aware about the plagiarism policies and penalties. They plagiarized because they have to survive and thrive in this environment and they had limited alternative means to achieve goals. Their study also highlighted the poor knowledge of plagiarism among graduates and post graduate students. The rise of plagiarism in academia was also talked about in their research. These findings are shedding light on the obvious but hidden side of academia in Pakistan. Policy makers have to make effective policies to combat any unethical act in academia.

Implications for Policy Makers:

The findings of this study suggest that we need effective policies to end corruption. Most of the students do not feel comfortable while sharing their ideas in English language yet many of them have chosen English language in their courses. Their early educational courses were also in English and despite of it they are not comfortable with this language. Language is the biggest

barrier in the path of knowledge. Our educational institutes need more translated books and books which are written in easy English can also help students. The concept of plagiarism is also vague among students. HEC has given clear policies on plagiarism but many students are not aware of it. Teachers should do an extra effort to educate students about these policies. Strict penalties against plagiarism can also help to reduce it. A culture where plagiarism is punishable can induce fear in students.

Teachers can play important role in the fight against plagiarism. Teachers in universities are overloaded with administrative work and large number of classes does not allow teachers to effectively communicate with every student. The whole educational system has to work together in it. University's teachers are not solely responsible for this task. We have to implement policies from a grass root level. The rote learning culture is threatening the intellect of our society. Standard policies can be made for all the teachers and for all the levels. Assignments should be designed in the way which promotes critical thinking among students. Quizzes should be arranged to evaluate the knowledge of students. Zero tolerance policy can be implemented in schools, colleges and universities. All the assignments and papers should be checked in plagiarism detection software. This will create awareness among students from an initial level.

Methodological Implications:

The findings of this study suggest that we need new variables in Pakistani setting to study plagiarism. The relationship between the personality variables and plagiarism is statistically significant but it is weak. The reasons behind plagiarism are different in Pakistan. Very few researchers have worked on plagiarism in Pakistan and all of them have studied the awareness and implications of plagiarism. Future researchers should study the reasons behind plagiarism and should highlight the people who get benefit from this corrupt system. The use and awareness of plagiarism detecting software among teachers can be studied in future research. Tools other than self-reported questionnaires can be used to measure plagiarism. Longitudinal studies in our setup can provide detailed answers to many research questions.

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