

Relationship Between Personality Traits and Déjà vu Experience Among Religious and Non-Religious People

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ABSTRACTS

Objective: To investigate the significant differences in the response of male and female participants to déjà vu experiences and to analyze whether the Big Five personality traits predict déjà vu experiences among religious and non-religious participants.

Study Design: Cross-sectional study.

Place and Duration of Study: City of Lahore, Pakistan, from Jan to Nov 2020.

Methodology: This study comprised a random sample of 160 male and female participants, aged 20-50 years from the different communities. The questionnaire, Big Five personality trait, and Italian inventory Déjà vu experience assessment instruments were used to investigate the relationship between personality traits and déjà vu experience among religious and non-religious participants.

Result: The score of male participants for déjà vu experience Mean±SD=51.55±9.26, and the score of female participants for déjà vu experience Mean±SD=50.08±8.47. Déjà vu among participants has a positive effect, with 0.026 for extraversion, 0.416 for conscientiousness, and 0.676 for openness to experience.

Conclusion: Our study results exhibited that male and female participants showed no significant difference in their déjà vu experiences. Moreover, the study results showed that extraversion, conscientiousness, and openness to experience personality traits were positive predictors of déjà vu experiences among participants from different religions and non-religions.

Keywords: Déjà vu experience, Personality traits, Religious, non-religious.

How to Cite This Article: Razaq N, Anjum Z, Sehar H, Bano S, Fayyaz L, Shafqat S. Relationship Between Personality Traits and Déjà vu Experience Among Religious and Non-Religious People. *Pak Armed Forces Med J* 2024; 74(2): 312-315. DOI: <https://doi.org/10.51253/pafmj.v74i2.6111>

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INTRODUCTION

Déjà vu experience is the unusual feeling of having done this act before, although there is no confirmation of this conflict, which is called a déjà vu experience.¹ Déjà vu appears as someone feels about something that appears as familiar to someone, or whether it is a kind of experience that someone familiar or not familiar. People often notice this kind of over-familiarity because the feeling happens quickly and then fades to a normal level of familiarity. It seems to affect the memory of a person or a place in such a way that we have already experienced it, even though there is no proof.² In our daily routines, we make countless judgments about whether we have prior experience with the people, places, objects, and situations we encounter daily. It is widely believed that approximately 97% of the population have practised déjà vu more than once in their lifespan, and about 67% practised it regularly.³

Research studies revealed that higher brain neurotransmitter chemical dopamine activity levels provoked déjà vu events.^{4,5} Previous literature shows that déjà vu is a common phenomenon that consists of normality and is associated with good memory function.⁶⁻⁸ Moreover, a research study investigated the fact that déjà vu has a strong association with the experience of familiarity and harmony between a new experience and one's own experience in the past.⁹ One study conducted experimentation for Functional magnetic resonance imaging (fMRI) and behavioural data from 21 participants revealed that memory conflict resolution may play an important role in feeling déjà vu events.¹⁰

The present study was designed to see the relationship between personality traits and Déjà vu experience among religious and non-religious people. There was less literature available on this study, so due to insufficient knowledge, we found a need to explore this more. In light of the above evidence, we focused on Déjà vu experience in relation to personality traits and then with a religious point of view, whether it is common among religious or non-religious persons.

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Received: 20 Jan 2021, revision received: 02 Apr 2022; accepted: 04 Apr 2022

METHODOLOGY

The cross-sectional study was conducted in the City of Lahore, Pakistan, from January 2020 to November 2020. after approval from IRB CMH Lahore Medical College (reference no 534/ERC/CMH/LMC). The sample size was calculated by WHO calculator taking the population Mean±SD, 0.24±0.18, anticipated population Means±SD=0.38±0.¹¹

Inclusion Criteria: Participants of either gender aged, 20-50 years, living in different socioeconomic statuses, literate or illiterate and of any religious believe were included.

Exclusion Criteria: Mentally handicapped people were excluded.

There were forty (40) participants in the Muslim group, forty (40) participants in the Christian group (40), forty (40) participants in the Hindu group and forty (40) participants in the atheist group. The participants in the Muslim, Christian and Hindu groups are considered religious groups, while participants in the atheist group are considered non-religious groups. They were selected using a simple random sampling method. The questionnaire, big five personality traits and Italian inventory of Déjà vu experience assessment were used to analyse the relationship of déjà vu experience among religious and non-religious persons.

The demographic sheet contains information related to age, gender, religious people (Christians, Muslims, Hindus, Muslims), and non-religious people (atheists). The big five inventory-2 extra short form consists of 15 items used for personality assessment.^{12,13} It is a reliable and valid tool having five subscales; the five subscales are as follows; Openness to experience (OEAA), Extraversion (EAAA), Neuroticism (NEAA), Conscientiousness (CAAA), Agreeableness (AGAA).

The Italian inventory Déjà vu experience assessment was used to assess whether or not people experienced the déjà vu event and how frequently these experiences occurred.¹⁴

Statistical Package for Social Sciences (SPSS) version 23.0 was used for the data analysis. Quantitative variables were expressed as Mean±SD and qualitative variables were expressed as frequency and percentages. Regression analyses and a t-test were used to explore the inferential statistics. The *p*-value of ≤0.05 was considered statistically significant.

RESULTS

A total number of 160 male and female participants aged 15-50 years from different religions and non-religions were included in the study. Their demographic characteristics are presented in Table-I.

Table-I: Frequency Distribution of Demographic Characteristics (n =160)

Study Parameters	n(%)
Age (Years)	
15-30	79(48.8%)
30-40	62(38.3%)
40-50	19(11.3%)
Gender	
Male	68(42.2%)
Female	92(56.8%)
Religion	
Muslim	40(24.7%)
Christian	40(27.7%)
Hindu	78(27.7%)
Atheist	40(24.7%)

The Table-II shows no significant difference in the male and female scores for Déjà vu experience. The female déjà vu experience score was (Mean±SD=50.08±8.47), and the male déjà vu experience score was (Mean±SD=51.55±9.26), which means that males and females did not respond differently to déjà vu experience. Table-III shows Déjà vu experience among participants computed with age, gender and five different personality traits (Openness to experience, Extraversion, Conscientiousness, Agreeableness and Neuroticism) as predictor variables and déjà vu as outcome variables. It showed that three personality traits (Openness to experience, Extraversion, and conscientiousness) were positive predictors of Déjà vu experience among participants (β =1.271, 0.026, 0.416, 0.676). At the same time, two personality traits (Agreeableness and Neuroticism) were negative predictors of Déjà vu experience (β =-1.008, -0.477, -0.2550).

Table-II: Comparison of Deja vu Experience among Male and Female Participants (n=160)

Parameters	Female Participants (n=61)	Male Participants (n=44)	<i>p</i> -value
Deja vu Experience Mean±SD	50.08±8.47	51.55±9.26	0.406

DISCUSSION

In the present study, 160 male and female participants aged 20-50 from different religions and

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Table-III: Déjà vu Experience Predicting from Age, Gender and all the Five Personality Traits Among Religious and Non-Religious Participants (n=160)

Variables	Unit of measurement	Un-standardized coefficient		Standardized coefficient	t	p-values
		B	Std.error	β	t	p
Deja vu						
Constant		52.437	6.493		8.076	.000
Age	Number	-8.748	15.989	-0.027	-5.47	0.585
Gender	Dummy(1=F, 2=M)	605.832	42.504	0.050	0.943	0.347
Personality traits	Extraversion	0.026	0.431	0.007	0.060	0.952
	Agreeableness	-0.447	0.513	-0.120	-0.872	0.386
	Conscientiousness	0.416	0.381	0.135	1.092	0.278
	Neuroticism	-0.899	0.427	-0.255	-2.104	0.038
	Openness to experience	0.676	0.408	0.186	1.655	0.101

non-religions were explored to see the relationship between déjà vu and different personality traits among participants from different religions and non-religions. Frequency analysis showed that the study included 42% males and 68% females. The score of male participants for déjà vu experience Mean±SD=51.55±9.26, and the score of female participants for déjà vu experience Mean±SD=50.08±8.47. This shows that males and females do not see any significant difference in the experience of déjà vu experience. The result of our study was in line with previous research by Para *et al.* suggesting that there were no significant differences between women and men in feeling paranormal sensations like telepathy and déjà vu experience.¹⁵ These results contradicted previous research by Meyers and Grant (1972), which suggests that a higher incidence was found in females.¹⁶ and other research by Green (1966) suggest higher incidence in males.¹⁷

Our study results revealed that two personalities, agreeableness and neuroticism, were negative predictors of the experience of déjà vu. In contrast, three personality traits (extraversion, conscientiousness and openness to experience) were positive predictors of déjà vu experience among participants from different religions and non-religion. At the same time the three personality traits (extraversion, conscientiousness, and openness to experience) were positive predictors of the Déjà vu experience. In contrast, two personality traits (agreeableness and neuroticism) were negative predictors of déjà vu experience among participants from different religious and non-religious systems. This means that déjà vu experience had a positive effect, with 0.026 for extraversion, 0.416 for conscientiousness and 0.676 for openness to experience.

The results of our study are in line with previous research by Fatima *et al.* (2020), which suggests that two personality traits (agreeableness and neuroticism) had a negative association with paranormal belief and that the occurrence of déjà vu was high as (95.2%) and in a particular situation the déjà vu experience was negatively related to personality traits.¹⁸

The regression equation for age showed that age is a negative predictor of déjà vu experience, which means that there was no significant effect of age on déjà vu. Déjà vu experience can be experienced at any age group.

The results of our study for déjà vu with age(8.748) are in line with previous research by Schredle *et al.* (2017), which suggested that the incidence of déjà vu was negatively correlated with age.¹⁹

However, our study had several limitations. It included a very small sample size, and the results may differ for large sample sizes and respondents from different ethnic backgrounds. The study also suggests some future recommendations. The study pattern shows the relationship between age, gender, religion, non-religiousness, and the déjà vu experience. Patterns may be different for participants of different age groups or people of different religions other than those mentioned above, or they can be different for different ethnicities and cultures.

CONCLUSION

Our finding suggests that two personality traits, conscientiousness extraversions, are positively related to déjà vu. Our finding suggests that males and females respond similarly to the déjà vu experience. This shows that the déjà vu experience was bound to deal with one's mind, and it can be regarded as a person's thinking ability and personality that makes the déjà vu occur. The data available on this aspect is still insufficient. Thus, based on our study, one can

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conclude that the human brain's thinking ability makes this event take place. Moreover, the study results concluded that personality traits (extraversion, conscientiousness, and openness to experience) were positive predictors.

Conflict of Interest: None.

Authors' Contribution

Following authors have made substantial contributions to the manuscript as under:

NR & ZA: Conception, study design, drafting the manuscript, approval of the final version to be published.

HS & SB: Data acquisition, data analysis, data interpretation, critical review, approval of the final version to be published.

LF & SS: Conception, data acquisition, drafting the manuscript, approval of the final version to be published.

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

REFERENCES

1. Cleary AM, Ryals AJ, Nomi JS. Can déjà vu result from similarity to a prior experience? Support for the similarity hypothesis of déjà vu. *Psychon Bull Rev* 2009; 16(6): 1082-1088. <https://doi.org/10.3758/pbr.16.6.1082>.
2. Martin CB, Fiacconi CM, Köhler S. Déjà Vu. The wiley handbook on the cognitive neuroscience of memory. John Wiley & Sons, Ltd; 2015.
3. Bošnjak Pašić M, Horvat Velić E, Fotak L, Pašić H, Srkalović Imširagić A, Milat D, et al. Many Faces of Déjà Vu: a Narrative Review. *Psychiatr Danub* 2018; 30(1): 21-25. <https://doi.org/10.24869/psyd.2018.21>.
4. Taiminen T, Jääskeläinen SK. Intense and recurrent déjà vu experiences related to amantadine and phenylpropanolamine in a healthy male. *J Clin Neurosci* 2001; 8(5): 460-462. <https://doi.org/10.1054/jocn.2000.0810>.
5. Wild E. Déjà vu in neurology. *J Neurol* 2005; 252(1): 1-7. <https://doi.org/10.1007/s00415-005-0677-3>.
6. Adachi N, Adachi T, Kimura M, Akanuma N, Takekawa Y, Kato M, et al. Demographic and psychological features of déjà vu experiences in a nonclinical Japanese population. *J Nerv Ment Dis* 2003; 191(4): 242-247. <https://doi.org/10.1097/01.NMD.0000061149.26296.DC>.
7. Kusumi T. Human metacognition and the déjà vu phenomenon. Diversity in cognition: Evolution, development, domestication, and pathology. Second Edition. Kyoto University Press; 2006.
8. Urquhart JA, O'Connor AR. The awareness of novelty for strangely familiar words: a laboratory analogue of the déjà vu experience. *PeerJ* 2014; 2: e666. <https://doi.org/10.7717/peerj.666>.
9. O'Connor AR, Moulin CJ. Recognition without identification, erroneous familiarity, and déjà vu. *Curr Psychiatry Rep* 2010; 12(3): 165-173. <https://doi.org/10.1007/s11920-010-0119-5>.
10. Urquhart JA, Sivakumaran MH, Macfarlane JA, O'Connor AR. fMRI evidence supporting the role of memory conflict in the déjà vu experience. *Memory* 2021; 29(7): 921-932. <https://doi.org/10.1080/09658211.2018.1524496>.
11. Moulin CJA, Souchay C, Buchanan S, Bradley R, Karadoller DZ, Akan M, et al. Déjà Vu in Older Adults. In: Schwartz BL, Brown AS, eds. Tip-of-the-Tongue States and Related Phenomena. Cambridge University Press; 2014.
12. Zaman S, Khalid S, Irfan S, Khattak A, Nawaz MT. Relationship Between Paranormal Belief And Personality Traits Among University Student In Pakistan. *Int J Sci Res* 2020; 76(7/1): 137-151. <https://doi.org/10.21506/j.ponte.2020.7.10>.
13. Donnellan MB, Oswald FL, Baird BM, Lucas RE. The Mini-IPIP Scales: Tiny-yet-effective measures of the Big Five Factors of Personality. *Psychol Assess* 2006; 18(2): 192-203. <https://doi.org/10.1037/1040-3590.18.2.192>.
14. Sno HN, Schalken HF, de Jonghe F, Koeter MW. The inventory for déjà vu experiences assessment: Development, utility, reliability, and validity. *J Nerv Ment Dis* 1994; 182(1): 27-33. <https://doi.org/10.1097/00005053-199401000-00006>.
15. Parra A. Gender differences in sensation seeking and paranormal/anomalous experiences. *Open Psychol J* 2015; 8(1): 54-58. <https://doi.org/10.2174/1874350101508010054>.
16. Myers DH, Grant G. A study of depersonalization in students. *Br J Psychiatry* 1972; 121(560): 59-65. <https://doi.org/10.1192/bjp.121.1.59>.
17. Green DM, Swets JA. Signal detection theory and psychophysics: Second Edition. Wiley, New York; 1966.
18. Fatima SM, Jameel R. Paranormal beliefs, personality traits and quality of life in clients with OCD. *Pak J Physiol* 2020; 16(1): 31-33.
19. Schredl M, Goritz A, Funkhouser A. Frequency of déjà rêvé: Effects of age, gender, dream recall, and personality. *J Conscious Stud* 2017; 24(7-8): 155-162. <https://doi.org/10.11588/ijodr.2010.1.473>.