

Stochastic Fluctuation and *pseudo-psi* effect

Results:

This experimental research on *psi effect* considers the outcome in *Random Event Generator* (REG) such as a high extrachance score of the extra sensory perception (ESP) test, can be associated with a causal random process. We tested 62 individuals, group **A**, of both sexes. They chose 200 times five symbols test (like Rhine zener cards). Group **B** was obtained by computer programme and had the same 62 virtual subjects. We correlated group **A** with group **B** to obtain group **C**, and 1981 combinations were done for each group. One way that we wanted to show that there is a causal random process, is the following: If the algorithm of the computer (*pseudo-random generator*) can produce high extrachance scores in **B**, then the *psi effect* in **A** and **C** can also be a result of the same process. There were many people who got extrachance scores (55 to 60 hits) and the computer did obtained the same outcome, in accordance with our predicted model.

GROUPS	Correlation (hits)					P=0.00 047 60 hits	Total
	P=0.01 55hits	56 hits	57 hits	58 hits	59 hits		
A	16	10	11	8	2	2	49
B	14	7	9	0	4	2	36
C	5	7	6	3	2	2	25
Total	35	24	26	11	8	6	110 $\chi^2 = 9.86$

A, **B** and **C** are *stochastic independent events* which were maintained in the category of *randomness* by $\chi^2 = 9.86$ ($p > 0.10$). Nevertheless, there is a widely spread fluctuation of the *hits*. All Groups showed *p* – values between 0,01 and 0.00047. The probability to obtain 60 hits is 1 in 2128 combinations while we found 2 in 1981. In conclusion: any stochastic process can be a factor to increase correlated scores in ESP test; therefore, as in Psychology, in Parapsychology we have a great problem with the decisions about *p* - values.

Published Work:

Thalbourne, M., Silva, C. & Razente, S. (2006). Belief in, and alleged experience of, the paranormal in the Portuguese population. *Australian Journal of Parapsychology*, 6: 155-165.

Razente, S.N., Silva, C. (2000): *Psi: personality and random events*. Proceedings of 3rd Symposium Bial Foundation “Aquém e além do cérebro”. Research Project 35/96, Porto.

Razente, S.N., Silva, C. (2001): *Statistic Psi Effect and Stochastic Fluctuation*. Proceedings of 2nd International Symposium Frontier of the Science. Universidade Fernando Pessoa. Oporto (*in press*).

Researcher’s Contacts:

Coordenador: Prof. Doutor C. Silva
 e-mail: cfernandes@iep.uminho.pt

Dr. Sergio N. Razente
 Rua dos Congregados, 23, 5º Esq. - S. Victor

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4710 Braga – Portugal

E-mail: razente@iep.uminho.pt