



## The roll of suspiciousness on word association test performance

Dr. Gurnam Singh,

Associate Professor GNC Sirsa

### Abstract

The present study investigated the role of suspiciousness in elicitation of idiosyncratic word association, long reaction time and repetition of word before responding on word association test performance. It was hypothesized that there would be no significant mean difference between high and low suspiciousness group for word association test performance. To test the null hypotheses the response of 200 male post graduate students for suspiciousness and what association test performance were subjected to a computerized statistical analysis through SPSS 10.0 version for groups statistics of median, mean, S.D., S. E. ,and t- test for equality of means. The table 4.10 shows that there is a significant main difference acceptable at 0.01 level of confidence in those high and low on suspiciousness for long reaction time ( $t = -5.967$ ). But the significant difference for UR ( $t = -0.392$ ) and PR ( $t = 0.151$ ) was not observed and is not accepted acceptable even at 0.01 level of confidence.

**Key Words: suspiciousness, idiosyncratic word association, long reaction time, repetition of word before responding.**

Knowledge of the phenomenon of association of ideas and a search for principles governing the reinstatement of ideas previously experienced can be traced to Plato Aristotle. Based on their observations, three laws known as association by contiguity, similarity and contrast were taught throughout the ages by philosophers. Locks coined the phrase “association of ideas.” In Britain, the co-called associationism” of the philosophers. These schools of psychology, which studied conscious mental states, flourished in the nineteen century. The teachings spread to France and Germany. By the end of the nineteen century experimental psychologist claimed that mental phenomena that cannot be measured and numbered are unscientific.

Association between ideas as represented by words was one of the lines of enquiry pursued by Wundt in his search for universals. The word association test, the grandfather of projective techniques has a rich history. The systematic study of word association was begun by Francis Galton (1885) with himself as subject. He exposed written stimulus words one at a time and noted with stop-watch the time required for response word, its general relation to the stimulus word, and the consistency with which the same response words occurred to a given stimulus. He concluded that the response were not random in character but represented well-worn ruts of the mind in which thought continually travelled. Some 40 percent of these associations dated back to his boyhood, 45 percent to his manhood, and 15 percent to recent events. The recent associations were the least



stable. Galton appears to have recognized what would now be called the projective potentialities of his observation. Setting aside as ‘too absurd ‘ the idea of publishing his own responses ( the experiments were self- administrated ) in full of author assets : “ They lay bare the foundations of man’s thoughts with a curious distinctness and exhibit his mental anatomy with more vividness and truth than he would probably care to publish to the world” ( Galton, 1879 ).

Several kinds of word association test; for example ones by Jung (1910), Kent and Rosanoff ( 1910), Rappaport, Schafer, & Gill (1946) and Upmanyu (1981) have been widely used for examining the psychological process of psychiatric patient and of normals.

From this method, clues to the personality of the subject were usually obtained in three typical ways : (1) By analyzing the commonness or unusualness of the subject’s responses as compared to norms for his culture for a diagnostic group ;( 2) by analyzing the stimulus words on which the subject “ blocks” - that is words on which his reaction time, nature of response, or behavior deviates from his usual reaction; and (3) by analyzing the association or actual responses to stimulus words on which the subject shows emotional disturbance, for example, blocking or otherwise. A variety of other signs of emotional disturbance have also been described and the authors were able to verify the validity of many of the common signs of indicators.

In associating to a stimulus word, an individual without emotional maladjustment generally respond to a word association test with conventional associations conceptually related to the stimulus word (Rappaort, Schafer & Gill, 1946). In the emotionally disturbed individual, deviations from the conventional conceptual mode of responding are to be expected and are indicators of association disturbance. Bleuler (1950) regarded incoherence as one of the basic symptoms of schizophrenia. Likewise, Buss (1966) pointed out that schizophrenic typically emit more deviant or unique responses in word association tasks than normals.

Several other studies using the Kent-Romanoff word association list with schizophrenics have reported that they produce more uncommon, idiosyncratic associations than normals or other psychiatric patients (Johnson, Weiss, & Zelhart, 1964; Deering, 1963). On the basis of all these facts and thoughts the study is designed in order to carry on the following objectives:

1. To understand the effect of suspiciousness (High, Low) on long reaction time.
2. To understand the effect of suspiciousness (High Low) on idiosyncratic word associations.
3. To understand the effect of suspiciousness (High Low) on repetition of word before responding.

## **Method**

## **Hypothesis**



1. Suspiciousness (High, Low) will have no effect on long reaction time.
2. Suspiciousness (High, Low) will have no effect on idiosyncratic word associations.
3. Suspiciousness (High, Low) will have no effect on repetition of word before responding.

## Sample

200 male postgraduate university students comprise the sample for the present investigation. The variable of gender has been controlled because researchers have shown differences in word association test performance of male and females.

## Tools

For this purpose the following test tools were considered with their reliability, validity and objectivity mentioned in their respective manuals

- (i) Word Association Test (Kent-Rosanoff, 1910).
- (ii) Minnesota Multiphasic Personality Inventory: Pd-Scale (Hathaway & Mckinley, 1967).
- (iii) Eysenck Personality Questionnaire: P-Scale ( Eysenck & Eysenck, 1975 ).
- (iv) Suspiciousness questionnaire ( Rawlings & Freeman, 1996 )

## Procedure

All tests were administered individually as well as of small groups, while collecting data for the study. Prior to administration of each test or scale, appropriate rapport was formed. Before attempting the questionnaire the subjects were requested to read the instructions carefully and follow them in true spirits.

## Results and Discussion

**Table A**

Statistics		S
N	Valid	200
	Missing	0
Median		20.00

To test this hypothesis the response of 200 male Post Graduate Students for suspiciousness and idiosyncratic word association was subjected to a computerized statistical analysis through SPSS 10.0 version for Group Statistics of Median, Mean, S.D.,S.E. and t - test for Equality of Means.



The subjects were classified as High and Low on suspiciousness on the basics of above and below Median. The Median score was 20.00 as shown in the table A. The Group Statistics for suspiciousness is shown in table B.

**Table B**  
**Group Statistics**

	<b>SMedian</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Std. Error Mean</b>
<b>LRT</b>	<b>Low</b>	<b>106</b>	<b>4.76</b>	<b>2.09</b>	<b>.20</b>
	<b>High</b>	<b>94</b>	<b>6.76</b>	<b>2.62</b>	<b>.27</b>
	<b>High</b>	<b>94</b>	<b>4.71</b>	<b>2.76</b>	<b>.28</b>
<b>UR</b>	<b>Low</b>	<b>106</b>	<b>.16</b>	<b>.45</b>	<b>4.40E-02</b>
	<b>High</b>	<b>94</b>	<b>.18</b>	<b>.62</b>	<b>6.41E-02</b>
<b>RR</b>	<b>Low</b>	<b>106</b>	<b>.32</b>	<b>.56</b>	<b>5.45E-02</b>
	<b>High</b>	<b>94</b>	<b>.31</b>	<b>.59</b>	<b>6.06E-02</b>

As shown in the table B the N for LRT is 106 for low and 94 for above Median Group. The Mean, SD, SE for below median group was 4.76, 2.09, and 0.20 respectively. Beside the Mean, SD and SE for above median group was 6.76, 2.62 and 0.27 respectively.

The table shows the N for UR is 106 for low and 94 for above Median Group. The Mean, SD, and SE 0.16, 0.454.40E-02 respectively. Besides the Mean SD and SE for above median group was 0.18, 0.62, 6.41E=02 respectively.

The table shows the N for RR is 106 for law and 94 for above Median Group. The Mean, SD and SE 0.32, 0.56, 5.45E-02 respectively. Beside the Mean,SD, and SE for above meadian group was 0.31,0.59,6.06E=02 respectively.

To test the significance of difference between the two means t - test and the obtained results are depicted in table C

**Table C**  
**Independent Sample Test**

		<b>t-test for equality of means</b>		
	<b>S</b>	<b>T</b>	<b>Df</b>	<b>Sig. (2-tailed)</b>
<b>LRT</b>		<b>-5.967</b>	<b>198</b>	<b>.000</b>
<b>UR</b>		<b>-0.392</b>	<b>198</b>	<b>.696</b>
<b>RR</b>		<b>.151</b>	<b>198</b>	<b>.880</b>



Table C shows the t- values for LRT, UR and RR. The 't' value for LRT, UR and RR are -5.967, -0.392, 0.696 respectively for the given df 198.

The table C shows that there is a significant mean difference acceptable at 0.01 level of confidence in those high and low on suspiciousness for long reaction time (  $t = -5.967$  ). But the significant difference for UR ( $t = -0.392$ ) and RR ( $t = 0.151$ ) was not observed and is not acceptable even at 0.01 level of confidence.

### Conclusion

The result shows that there is a significant mean difference acceptable at 0.01 level of confidence in those high and low on suspiciousness for long reaction time (  $t = -5.967$  ). But the significant difference for UR ( $t = -0.392$ ) and RR ( $t = 0.151$ ) was not observed and is not acceptable even at 0.01 level of confidence.

### References

- Bleuler, E. (1950). *Dementia praecox or the group of schizophrenics*. (Trans by J. Zenkin). New York: International Universities Press.
- Buss, A.H. (1996). *Psychopathology*, New York: Wiley
- Deering, G. (1963). Affective stimuli and disturbance of thought processes *Journal of Consulting Psychology*, 27, 338-345
- Gough, H.G. (1976). Studying creativity by means of word association tests. *Journal of Applied Psychology*. 61, 348-353.
- Johnson, R.C., Weiss, R.L., & Zelhart, P.F. (1964). Similarities and differences between normals and psychotic subjects in response to verbal stimuli. *Journal of Abnormal and Social Psychology*, 68, 221-226.
- Kent, G. H., & Rosanoff, A. I. (1910). A study of association in insanity. *American Journal of Insanity*, 67, 37-96, 317-390
- Rapaport, D., Schafer, R., & Gill, M. (1964). *Diagnostic psychological testing*. Vol.II. Chicago: Year- Book Publication.
- Upmanyu, V. V. & Singh S. (1984). Word association test responses: An index of pathological characteristics or creative. *Personality Study and Group Behaviour*, 4, 39-49.