

## Sex Personality Differences in Foreign Language Performance

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### Introduction

Any study of gender-related difference must acknowledge that the effect of the sex variable is dependent on the task performed and the circumstances under which the is performed (Nyikos/1990). This paper addresses one aspect of individual differences, namely sex differences, and how this may influence the learning tasks performed by university students taking a foreign language •

Oxford et al. (1988) indicates that factors in the socialization of the sexes must be recognized as exerting a strong influence on memorization processes\* It follows that in verbal learning tasks men and women may diverge radically in what they accept as salient retrieval cues\* These differences may be due to the relative importance each group learns to attach to the information and to the mode in which it is presented\* For example, women attach great importance to expressing themselves verbally and women value facility with visual and spatial information, all socially sanctioned gender-appropriate behaviours learned by the respective gender groups (Giles and Wiemann (1995).

The present study investigates sex differences in relation to foreign language learning at university level• Two experiments were designed, for this purpose.

### **Experiment One Method**

#### ***Aim***

The aim of the experiment is to investigate the relationship between extroversion, sex, Raven's Matrices scores and performance on English tests by learners for whom it is a foreign language. Subjects

56 19-20 year-old-learners in the dept. of -English, College of Education, University of Basrah were chosen for the purpose of this study,

#### Materials and Procedure

The Eysenck Personality Inventory (S•Eysenck,1965) was used to assess introversion-exirroversion, and Raven's Standard Progressive Matrices ( Raven,1956) to assess reasoning,

Language performance was assessed by means of a one-hour printed paper given as part of the learners'usual examinations and containing three language tests as follows\*(i) Comprehension. This test consisted of a 208-word passage and 12 questions,both in English, to be answered by sentences in English. Two marks were available for each question: one mark was awarded for correct comprehension and one mark for correct English with 0.5 mark being deducted from the latter for each error. The maximum score was 24. (ii) Essay. The essay was to be written in English and based on a a sequence of six pictures. One point was deducted from \$0 for each English inaccuracy exept for accents where 0,5 mark was deducted. A mark out of ten was then added for the quality of the content. The maximum score was 40. (iii) Prose translation. A 106-x^ord Arabic prose passage was to be translated into English. For scoring the passage was divided into 25 pchases with one mark for each one correctly translated.

In the for weeks before the examination Raven's Matrices and the Eysenck Personality Inventory were given to the groups. The subjects were then allocated within sexes into high and low groups for both Raven's Matrices and Extrovers ion.This gave eight groups with seven subjects in each,

**Results**The mean scores for the treatments are given in table I.

Table I

Mean Scores on Language Tests in Experiment I ( Standard Deviation in Brackets )

Mean Score on Language Tests ( % ) Sex Raven's Extroversion^Comprehension EssayTranslation"

<b>Men</b>	<b>High</b>	<b>Extroverts</b>	<b>46.8^ (9.24)</b>	<b>49.14(15.571)</b>	<b>42.28 ( 34.47</b>	<b>50.28(12.( ,</b>
	<b>Low</b>	<b>Introverts -</b>	<b>58.28(14.</b>	<b>22.85( 7.9:0</b>	<b>)</b>	<b>29.71(28.11)</b>
		<b>Extroverts</b>	<b>'79) 47*42(</b>	<b>51.42(10.54'</b>		
		<b>Introverts</b>	<b>9^6 )</b>	<b>56.57(20.55!</b>	<b>17.14(10.84'</b>	<b>)</b>
		<b>54.85(15.4?)</b>				
<b>Women</b>	<b>High</b>	<b>Extroverts</b>	<b>55.71(10.87)</b>	<b>49.42(15.58)</b>	<b>45.71:(21.25)</b>	
	<b>Low</b>	<b>Introverts</b>	<b>54.85(8.47)</b>	<b>50.85(6.56)</b>	<b>41.14(28.01;</b>	
		<b>Extroverts</b>	<b>56.57(6.56)</b>	<b>54.85(9.49)</b>	<b>56.57(26.59;</b>	
		<b>Introverts</b>	<b>45.14(11.65)</b>	<b>40.00(12.82)</b>	<b>56.57(21.74</b>	

<b>Both</b>	<b>High</b>	<b>Extroverts Introverts Difference</b>	<b>50.28 46.57 5.71</b>	<b>49.28 56.85 12.45</b>	<b>44.00 29.14 14.86</b>
	<b>Low</b>	<b>Extroverts Introverts .Difference</b>	<b>52.00 40.00 12.00</b>	<b>45.14 58.29 4.85</b>	<b>55.45 55.14 0.29</b>

A. four-way analysis of variance of Extroversion X Raven's X sex with repeated measures on language sub-test Type was performed on the data. This showed two significant effects:(a) a significant difference in performance between the men and women ( $F=8.41; df 1,48; P 0.01$ ) ; (b) an interaction between Raven's Matrices, Extroversion and Language sub-test type in their effect on performance ( $F= 5.62 ; df 2,96; P 0.05$ ). These two findings will be considered in turn:

(a) Sex difference. The mean score obtained by the women was higher than that of the men on all three tasks. The overall means were, 47.12 per cent for women and 55.57 per cent for men. Since there were no significant interactions between sex and other variables, no additional evidence about the nature of sex differences was available.

(b) Extroversion, Raven's Matrices and test-type. Inspection of the lower section of Table I indicates that, for a given level of Raven's extroverts are superior to introverts on all tasks. For the high Raven's group, there was little difference between extroverts and

introverts on comprehension but the difference increased as the shift to translation from Arabic into English increased\* In the case of the low Raven's group there was a difference in favour of the extroverts on comprehension but this decreased as the amount of Arabic to English translation increased\*

## ***Experiment Two***

### ***Aims***

The aim of the second experiment was the exploration of the interaction of second language performance in three skill areas (rules , set phrases and verbs ) and task type ( comprehension and essay ) with Raven's Matrices and Extroversion •

## Subjects

The subjects were 48 19-20-years-old from the same college as used in the experiment one.

## Materials and Procedure

Raven's Standard Matrices and the Eysenck personality Inventory were given to the subjects in groups,

There were two languages tests, each test being of one hour and presented in a written form;

- (i) Comprehension, A 225- word Passage in English followed by 16 questions to be answered was constructed. The questions were designed to test the following:(a) accuracy in singular and plural use (5 questions); (b) accuracy of use of set-phrases(5questions), (c) accuracy in the use of verbs (6 questions), A maximum of two marks was given for each question. One mark was awarded for correct comprehension and from the remaining mark half a point was deducted for each mistake in accuracy. The score for each skill type was then expressed as a percentage to allow a comparison between skills (ii) Essay. The subjects were instructed to write a composition in English of between 150-170 on one of three topics. For each topic they were given 15-16 questions to guide them\* Essay were scored for use and accuracy in three skills:(i) words dependent on the rules of singular, plural, masculine, feminine and vowel. The first 15 uses of singular and plural were examined. One point was given for correct usage; Half a point was deducted for accuracy errors; (ii)"set-phrases" which, if subject to change, were dependent on simple operations such as word substitution. The first 10 uses of"set phrases" were examined. One point was given for.

correct usage. Half a mark was deducted for accuracy errors;

- (iii) the ability to use verbs and their rules for change. The first 10 uses of verbs were examined • One point was awarded for correct usage. Half a mark was deducted for accuracy errors.

The subjects were grouped to high and low according to their Raven's and extroversion scores within sexes. Excess subjects were randomly excluded to give eight cells with six subjects in each.

## Results The mean scores for the groups are given in table 2

A five-way analysis of variance of extroversion X Raven's X sex with repeated measures on Task Type and Skill Type was performed on the data and

this indicated three significant interactions requiring consideration:(a) a significant sex difference (  $F= 4.52$  ;  $df 1,40$  ;  $P 0.05$ ; (b) an interaction between Raven's extroversion and skill type ( $P=5.41$  ; $df 2. 200$ ;

$P 0.01$  ) ; (c) all three skills were handled better in the essay test ( $F= 42.69$  ;  $df 2.200$ ;  $P 0.001$  ). These three findings will be considered in turn :

(1) Sex difference

Women again did. racier than men • The means were respectively, overall girls 45»I? per cent , men 56.17 per cent" • This finding is in accord with the previous one and again no reliable interaction was found between sex and other variables.

(2) Raven's Matrices, extroversion and skill type

The pattern of result is shown in the lower section of table 2 . The difference between extroverts and introverts for the high Raven's Matrices score groups was great in the case of the verbs. For the low group the differences were fairly constant and in favour of the extroverts.

(5) Skill type and test type

In the essay questions subjects scored higher in all three skills than the comprehension. However, since there is no way of equating the general difficulties of two dissimilar tasks the finding should probably be disregarded

Mean Scores on Language Tests in Experiment 2

(Standard Deviation in Brackets )

Mean Scores on Language Tests(^)

Sex	Ravens	Extrover- ] sion	RuL	Compreher es Set Ph.	isio; a rbs Ve:	Ru: E les Set :	ssay	Ph	Ve: rbs			
Men	High	Extroverts	44	.16 11.66	14	.16	65	.55	62.	50	50	.85
			(TO	•50)( 8.97)	(II	.55)	(14	.62)	14.94	17	.89	
	Introverts	29	.16 10.85	52	.50	55	.85	60.	00	40	.00	
			(22	.55)(12.72)	(26	.88)	( 8	.85)	(12.	85)	(22	.56)
Low	Extroverts	29	.1? 11.67	?6	.67	41	.67	59.	17	40	.00	
			(15	.59K9.5-4)	(24	.61)	(21	.75)	(16.	69)	(12	.91)
	Introverts	50	.00 8.55	25	.00	50	.00	50.	00	26	.66	
			(16	.52)(15.12)	(28	.86)	(24	.15)	(22.	91)	(15	.80)

Women	High	Extroverts	55	.55 19.16	52	.50	70	.82	60.	00	40	.50
			(20	.54)(27.14)	(22	.68)	(16	.18)	(24.	52)	(1-6	.00)
		Introverts	46	.66 17.50	56	.66	55	.55	66.	85	26	.66
			(15	.45)(11.08)	(17	.24)	(15	.74)	(16.	45)	(II	.42)
	Low	Extroverts	65	.50 55.55	54	.16	76	.66	77.	50	55	.00
				(25.40)(25.II)	(25	.72)	(14	.55)	(14.	56)	(15	.84)
		Introverts	55	.00 10.00	25	.85	45	.00	65.	55	25	.00
			(29	.72)( 8.6I)	(15	.66)	(18	.02)	(22.	66)	(12	.90)
Both			Both			Tasks						
		Rules			Set	Ph						
	High	Extroverts		59.16	58.	55						50.00
		Introverts		^6.25	57.	29						55.96
		Difference		12.91	I.	04						-5.96
	Low	Extroverts		52.70	^5.	42						56.46
		Introverts		40.00	52.	92						25.62
		Difference		12.70	12.	50						10.84

## Discussion

With respect to sex difference, both experiments showed a clear overall superiority of girls and no hint of interaction with task type.

In the first experiment, as the amount of Arabic into English translation increased so the superiority of the extroverts increased for the high Raven's score group with the opposite result for the low group. In the second, extroverts were again better than introverts particularly on the skills requiring attention to the phonetic rather than the semantic characteristics of words. Taken together the two studies provide tentative evidence that performance in foreign language learning is related to personality which may in turn be related to learning styles. Generally the *most* appropriate combination is ex+?rovert and high Raven's score, although a low Raven's score appears to be efficient for some aspects of language work which require an overall view. It may be that a low Raven's score is related to a no list approach to learning.

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