

# CROSS-CULTURAL SIMILARITIES IN ASSOCIATION STRUCTURES

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Many English speaking subjects respond in the "free" word association experiment as if they were under controlled association instructions. Such subjects tend either to give predominately synonym-superordinate (SS) associates (e.g., *small*, "little"; *cabbage*, "vegetable") or predominately contrast-coordinate (CC) associates (e.g., *black*, "white"; *orange*, "apple") or predominately "functional" (F) associates (e.g., *foot*, "shoe"). These three idiodynamic associative sets (characteristic of the individual, in responding to any stimulus word list) have been demonstrated in older non-college normals, acutely psychotic schizophrenics (Moran, Mefferd, Kimble, 1964), and college students (Moran, 1966).

Hypotheses concerning differences in orientation to words in general have been offered to partially account for individual differences in associative set (Moran et al., 1964). However, the purpose of the present study is not to inquire into the nature of these sets, but rather to determine the generality of such sets in different populations of subjects. Specifically, do the idiodynamic associative sets which have appeared in a variety of English speaking populations appear also in a Spanish speaking population?

## METHOD

The procedure used in the present study follows closely that used in a study of 482 University of Texas students, in which the (SS), (CC), and (F) sets appeared (Moran, 1966).

Subjects. Four groups of Spanish speaking students totalling 206, at the National University of Mexico, served as subjects.

Word list. The 80-word list used was drawn from 400 stimulus words that had been administered to a sample of 196 men (Moran et al., 1964). The first 20 words in the list had elicited from the 196 men (SS), (CC), and (F) type associates with about equal frequency, e.g., *heat* elicited "warm" (SS), "cold" (CC), and "fire" (F) with near the same frequency. The next 24 words in the

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list had elicited with near equal frequency, associates compatible with two of the sets, but not the third set, e.g., *beautiful* elicited "pretty" (SS) and "ugly" (CC), but not (F) associates. These 24 words were counterbalanced so that, overall, they were equally compatible with all three sets. The last 36 words in the list consisted of three groups of 12 words, each representative of one of the three sets, i.e., words that had elicited associates almost exclusively of one set type. The last 36 words were ordered in the list by type, i.e., CC, SS, F, CC, SS, F, etc., and were equalized for frequency (from 196 men) of each response category. Further details about the list, and the specific words used, are provided in Moran (1966).

**Test administration.** Subjects were instructed to write the first word that came to mind when they heard the word read by the examiner. They were told that words would be read at five second intervals, and to leave a blank space if no response word came to mind. Also, they were asked not to change a response or to return to fill in a blank space later. The words were read in Spanish and associates were written in Spanish.

**Variables.** A manual consisting of the pre-scored responses of 482 subjects to these 80 stimulus words (Moran, 1966) was used to score associates of the present sample for the following variables.

1. **Functional.** Stimulus word (SW) and response word (RW) each separately denote entities or processes between which there is an explicit functional relationship, e.g., *needle*, "thread." This category has priority over Logical Coordinate, e.g., *knife*, "fork," is scored Functional.

2. **Synonym.** The RW has exactly the same meaning as the SW in one or more ordinary and appropriate contexts, e.g., *blossom*, "flower."

3. **Superordinate.** SW denotes an immediate member of the class or category denoted by RW, e.g., *cabbage*, "vegetable."

4. **Contrast.** RW negates or contrasts with the meaning of SW in one or more ordinary and appropriate contexts, e.g., *dark*, "light."

5. **Logical Coordinate.** SW and RW separately denote immediate members (of equal logical order) of the same class or category, e.g., *blue*, "yellow." Logical coordinates that meet also the criteria for Contrast are scored Contrast.

6. **Total faults.** (Blanks and Multiwords)

7. **Commonality.** Each of the subject's associates was assigned a value corresponding to the number of times that associate was given by a group of 482 English speaking students.

**Statistical analysis.** Pearson product-moment correlation coefficients were factored into principal components and rotated by the normalized varimax

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method. Unities were placed in the diagonal. Factor extraction was stopped when eigen values dropped below unity.<sup>2</sup>

RESULTS AND DISCUSSION

The means, standard deviations, and intercorrelations of the variables are provided in Table 1. Shown in Table 2 are the results of a normalized Varimax rotation of principal component factors.

TABLE 1  
*Means, Standard Deviations, and Intercorrelations for  
206 Mexican Students*

Variable	Mean	S.D.	Intercorrelations					
			1	2	3	4	5	6
1. Functional	15.2	5.2						
2. Synonym	4.6	2.8	.04					
3. Superordinate	6.0	4.5	-.06	.36				
4. Contrast	5.9	5.1	.01	-.09	-.17			
5. Coordinate	5.7	4.7	-.19	.11	-.09	.64		
6. Faults	4.7	5.6	-.32	-.10	.10	-.25	-.19	
7. Commonality	4111.3	1615.4	.45	.17	.03	.75	.48	-.32

TABLE 2  
*Normalized Varimax Rotated Factors for  
206 Mexican Students*

Variable	I	II Factor	III	h <sup>2</sup>
1. Functional	-.16	-.01	.91	85
2. Synonym	.07	.83	.11	70
3. Superordinate	-.10	.82	-.10	69
4. Contrast	.90	-.16	.16	87
5. Coordinate	.89	.04	-.12	81
6. Faults	-.24	.02	-.64	47
7. Commonality	.71	.14	.56	85
% Variance	31.6	20.0	23.2	

<sup>2</sup> Computations were carried out at the Computation Center of the University of Texas, with programs compiled by Prof. Don Veldman, Department of Educational Psychology. Appreciation is expressed to Prof. Veldman for his very generous and helpful consultations on statistical problems.

The same three set factors found in four different samples of English speaking subjects appeared also in the present Spanish speaking sample. In Table 2, Contrast-Coordinate (Factor I), Synonym-Superordinate (Factor II), and Functional (Factor III) clearly represent the three independent associative modes.

To demonstrate idiodynamic set in the 482 English speaking sample, subjects were selected to represent a set if they had a standard score (z) greater than 1.00 on the variables representative of one set and less than .00 on the variables representing the other two sets, based upon performance on the first 44 words to which they associated. It was then predicted (and confirmed) that they would achieve a higher Commonality score on the stimulus words in the second part of the list that were most compatible with their set, i.e., on the 12 words of the 36 that had elicited essentially only one type of associate, from 196 men.

The same procedure was followed with the present subjects; however, because of the smaller Spanish speaking sample, subjects were selected to represent a set if they had a z score greater than .50 on the variables representing one set and less than .50 on the variables representing the other two sets, based upon their first 44 associates.

The effect of idiodynamic sets upon Commonality scores may be seen in Table 3. On their last 36 associates, subjects with a set achieved a higher Commonality score on stimulus words most compatible with their set. It follows that Commonality score (degree to which a subject's associates correspond to

TABLE 3  
*Effect of Idiodynamic Set Upon Commonality Score*

Type of Subject		Type of Stimulus Word		
N	Type	Functional Average Commonality	Syn-Superord. Standard <sup>3</sup>	Cont-Coord. Score
32	F (Factor III)	.31	-.23	-.25
34	SS (Factor II)	-.11	.52	-.55
35	CC (Factor I)	.04	.02	1.10

NOTE: Type of subject represented by subjects with z score greater than .50 on variables representing one set and less than .50 on variables representing the other two sets, based upon first 44 associates. Type of stimulus word each represented by 12 words that elicited predominately one type of response from 196 men; these were the last 36 stimulus words in the list.

<sup>3</sup> In the 482 English speaking sample, Commonality means (per cents) on the (F), (SS), (CC) stimulus words were almost equal: 26.0, 25.5, 25.9, respectively. Means for the present Mexican sample on the same words (scored from the 482 samples) were very unequal: 1163, 380, 1525, respectively.

those of a normative group) is a partial function of the number of stimulus words in the list that happen to be compatible with the subject's set. Idiodynamic sets have a significant influence upon most schemas traditionally used in the word association experiment. Response faults (e.g., delayed R. T., blanks, multiword, etc.) occur less frequently on stimulus words that are compatible with the subject's set. Grammatical form of associates also is influenced by set; (SS) subjects tend to give verbs, (CC) subjects, adjectives, and (F) subjects, nouns (Moran et al., 1964). Since most homonyms are of dual grammatical form, word association studies which involve the subject's interpretation of ambiguous words (e.g., Foley & MacMillan, 1943; Secord, 1953) need to consider idiodynamic sets. An example, (not taken from the studies just cited) might be the subject who gives associates of "aggressive" connotation to homonyms like, *clip*, *sock*, *box*, *stick*, etc., who may well be expressing an (SS) set rather than a belligerent disposition.

Both English speaking and Spanish speaking subjects have been shown to enter the word association experiment with a definite set to give predominantly one category of response word, i.e., synonym-superordinate, or contrast-coordinate, or functional associates. The resulting interactions between idiodynamic set type and stimulus word type have a significant influence upon most of the usual free word association scoring schemas and should enter into the interpretation of such scores.

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## ABSTRACT

English-speaking subjects in the free word association experiment evidence distinctive pre-experimental, or idiodynamic, associative sets. These sets have a marked influence upon all of the traditionally scored dependent variables in word association. The sets also suggest fundamental differences in association structures (word compiling systems) of people in the same linguistic community. In the present study, Spanish-speaking Mexican Nationals evi-

denced the same sets as found with English-speaking subjects. The generality of these associative sets in a wide variety of populations supported the contention that they may reflect word compiling systems basic to language users, whatever the specific language involved.

RESUMEN

Sujetos de habla inglesa en el experimento de libre asociación de palabras muestran claras predisposiciones asociativas pre-experimentales o ideodinámicas. Estas predisposiciones tienen una marcada influencia en todas las variables dependientes tradicionalmente computadas, en asociación de palabras. Estas predisposiciones también sugieren diferencias fundamentales en las estructuras de asociación (sistemas de compilación de palabras) de la gente de la misma comunidad lingüística. En este estudio, ciudadanos mejicanos de habla española mostraron las mismas predisposiciones encontradas en los sujetos de habla inglesa. La generalidad de estas predisposiciones asociativas en una amplia variedad de poblaciones, respalda la posición de que ellas pueden reflejar sistemas de compilación de palabras básicas a los hablantes, cualquiera que sea la lengua hablada.

RESUMO

Sujeitos de língua inglesa claramente mostram predisposições preexperimentais ou ideodinâmicas no experimento de associação livre. Estas predisposições influenciam de maneira marcante todas as variáveis dependentes tradicionalmente computadas nestes estudos de associação de palavras. As mencionadas predisposições também sugerem diferenças fundamentais nas estruturas associativas (sistemas de compilação de palavras) de pessoas da mesma comunidade lingüística. Neste estudo, cidadãos mexicanos de língua espanhola mostraram as mesmas predisposições observadas em sujeitos de língua inglesa. A generalidade destas predisposições associativas em uma ampla variedade de populações, reforça a posição de que elas representam sistemas de compilação de palavras que são básicos a natureza dos falantes, independente da língua falada.

# ACTITUDES MORALES Y SOCIALES EN ADOLESCENTES

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## OBJETIVOS

La adolescencia, tradicionalmente descrita como una etapa de crisis, sería factible de medir, tomando como patrones la actitud de los adolescentes frente a los valores normal y socialmente estatuidos.

En nuestros adolescentes existiría un importante monto de agresividad en relación a la especial percepción del medio ambiente como frustrante o por la existencia real de situaciones frustrantes, partiendo del criterio experimentalmente verificado que vincula frustración y agresividad.

a) Describir las características de un sector de adolescentes de La Plata y alrededores, con relación a los valores socialmente institucionalizados.

b) Analizar el monto de agresividad a través de la valoración de la tolerancia a la frustración.

c) Verificar en los distintos niveles socioculturales las diferencias de actitudes (políticas, religiosas, culturales) correlacionándolas con la capacidad de tolerar la frustración y el juicio moral.

d) Investigar la utilización del tiempo por el adolescente como actitud existencial.

## CARACTERÍSTICAS METODOLÓGICAS

Selección del grupo, entre alumnos de establecimientos secundarios, de diferentes características socioculturales.

Aplicación del Test de Tsedek para la medición de las actitudes morales (forma colectiva).

Aplicación del Test de frustraciones de Rosenzweig, construido para la comprensión del monto de frustración individual y el manejo personal ante situaciones frustrantes. (Forma colectiva, con equipo individual)

Estimación de las características socioeconómicas, familiares, intereses, uso del tiempo libre, etc., por medio de una encuesta diseñada ad-hoc.

Para dar cumplimiento a los objetivos enunciados, se seleccionó un grupo de adolescentes pertenecientes a cuatro escuelas secundarias, representativas de distintos niveles socioculturales y económicos. Se estableció a priori un orden

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de jerarquía de acuerdo a dos criterios: 1) la especial formación dada a los alumnos, 2) la categoría que se les atribuye a cada una de las escuelas, en nuestra ciudad.

- 1º) *COLEGIO NACIONAL: Nivel jerárquico superior*  
Dependiente de la Univ. Nac. de La Plata.  
Forma bachilleres para seguir estudios universitarios. Ciclo de seis años.
- 2º) *CICLO BASICO VOCACIONAL. "C. Vergara" (Mixto): Nivel jerárq. medio*  
Dep. del Mrio. de Ed. de la Pvcia de Bs. As.  
De carácter experimental: por la concurrencia del mismo alumnado a doble turno; y la presencia de un profesor guía en cada curso. Consta de un ciclo básico de tres años que oriente a los alumnos a distintas especialidades de la enseñanza media (bachillerato, magisterio, comercial, industrial y ens. artística).
- 3º) a) *ESCUELA TECNICA INDUSTRIAL N°2. "Fray L. Beltrán" de los Hornos*  
b) *ESCUELA PROFESIONAL MIXTA N°3 de Los Hornos*  
a) y b): *Nivel jerárquico bajo. Dependientes del Mrio de Ed. de la Pvcia. de Bs. As.*  
a) Capacita a los alumnos en un ciclo de tres años en diversas especialidades: carpintería, bobinaje, tornería, electricidad, etc.  
b) Capacita en las siguientes especialidades cuya duración varía en 1, 2 y 3 años: corte y confección, dactilografía, peinados etc.

De un total de 20 alumnos encuestados se seleccionaron 80 casos entre 14 y 19 años, en los que los datos requeridos se mostraban más completos y a fin de nivelar los grupos.

*El resultado de la distribución es la siguiente:*

NIVEL JERARQUICO ALTO .....	22	sujetos	
" " MEDIO .....	20	"	
" " BAJO .....	38	"	(agrupadas dos escuelas)

*Punto a) Descripción de las características de nuestro grupo de adolesc. en relación a los valores socialmente instituidos.*

Se aplicó el Test de Juicios morales de Tsedik (Forma colectiva). Este test clasifica las respuestas en niveles de juicio moral alto, medio, y bajo.

Se obtuvieron los siguientes resultados

NIVEL JERARQUICO ALTO			
Juicios morales altos =	8 casos	36%	
Juicios morales medios =	9 casos	41%	77%
Juicios morales bajos =	5 casos	23%	
N =	22 casos	100%	



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NIVEL JERARQUICO MEDIO (Ciclo básico vocacional)

Juicios morales altos	= 8 casos	40%	
Juicios morales medios	= 10 casos	50%	90%
Juicios morales bajos	= 2 casos	10%	
N	= 20 casos	100%	

NIVEL JERARQUICO BAJO (Escuela técnica y esc. profesional)

Juicios morales altos	= 16 casos	42%	
Juicios morales medios	= 17 casos	45%	87%
Juicios morales bajos	= 5 casos	13%	
N	= 38 casos	100%	

En una primera aproximación, pudimos observar que los porcentajes de juicios morales justos (alto), en los niveles jerárquicos, medio y bajo, son más elevados que en el nivel jerárquico alto. Esto se debería a que en este último nivel, el grupo que lo representa posee un grado mayor de heterogeneidad y flexibilidad en sus normas, y por lo tanto darían un amplio margen de elección e inseguridad para el adolescente. Por el contrario, las pautas sociales en los niveles más bajos, oponen mayor resistencia al cambio, resultando en consecuencia, los juicios así emitidos, más rígidamente adaptados a las normas.

*Punto b) Análisis de los resultados obtenidos con el Test de frustración de Rosenzweig. (Forma colectiva y administración con equipos individuales). Valoración del índice de adaptación al grupo (C.G.R.) y de las respuestas a las situaciones frustrantes.*

Se obtuvieron los siguientes resultados:

		NIVEL JERARQUICO ALTO			
G. G. R.				Respuestas E	
Alto	3	13%		1	4%
Medio	14	64%		16	73%
bajo	5	23%		5	23%
N	= 22	100%		N = 22	100%

		NIVEL JERARQUICO MEDIO			
G. G. R.				Respuestas E	
Alto	3	15%		3	15%
medio	15	75%		16	80%
bajo	5	25%		1	5%
N	= 20	100%		N = 20	100%

		NIVEL JERARQUICO BAJO			
G. G. R.				Respuestas E	
Alto	6	16%		6	16%
medio	26	68%		22	58%
bajo	12	32%		10	26%
N	= 38	100%		N = 38	100%

G. G. R.		TOTAL DEL GRUPO		
Alto	3	1%	12	15%
Medio	55	71%	52	65%
bajo	22	28%	16	20%
N	= 80	100%	N = 80	100%

*Análisis parcial de los resultados del punto b)*

Con respecto al índice de conformidad (C.G.R.), notamos-aunque no en forma marcada, una tendencia hacia la mayor adaptación en el sector de adolescentes correspondientes a nuestro nivel jerárquico alto, en relación con un mejor control de la agresividad hacia el medio ambiente.

*Análisis global de los resultados del punto b)*

Los datos presentados, nos permiten apreciar que, con respecto al índice de conformidad al grupo, el 71% de los adolescentes, se encuentra comprendido dentro del término medio, y con respecto al monto de agresividad, no se ha encontrado un porcentaje elevado del mismo en nuestro grupo (15%) situándose el mayor porcentaje de sujetos, dentro de los límites normales o medios (65%).

Por lo tanto, ubicamos al grupo de 80 adolescentes seleccionados para nuestro estudio dentro del término medio respecto a la capacidad de tolerar las situaciones frustrantes, aunque existan las variaciones anteriormente señaladas entre un nivel y otro.

*Punto c) Verificar en los distintos niveles socioculturales, las diferencias de actitudes (políticas, religiosas, culturales), correlacionándolas con la capacidad de tolerancia a la frustración y con los juicios morales.*

Intentamos conocer a través de una encuesta especialmente construida, dichas actitudes, como así también la utilización del tiempo libre.

No ha sido posible llevar a cabo nuestro propósito, porque las encuestas presentadas—aunque de carácter anónimo—despertaron resistencias y reacciones hostiles manifiestas, hacia las mismas. Negándose, en la mayoría de los casos, a responder a lo requerido. Lo que es significativo, aunque no se pudieron efectuar las correlaciones previstas en nuestra hipótesis, ya que demuestra que el monto de agresividad que no se puso en evidencia en el Test de frustraciones de Rosenzweig, aparecería a posteriori en la actitud asumida frente a la encuesta, último paso realizado por los alumnos.

RESUMEN

Mediante la aplicación del Test de Tsedek para medir las actitudes morales y del test de frustraciones de Rosenzweig a 200 adolescentes de La Plata y alrededores, se seleccionaron 80 sujetos cuyos datos se mostraban más com-

pletos. El 71% de ellos se encuentra comprendido dentro del término medio respecto a la capacidad de tolerar situaciones frustrantes. Las actitudes políticas, religiosas y culturales no pudieron medirse debido a que las encuestas presentadas, aunque de carácter anónimo, despertaron resistencias y reacciones hostiles.

#### ABSTRACT

The Tsedek Test and the Rosenzweig Test were administered to 200 adolescents of La Plata, Argentina. Eighty subjects with complete data were selected. Seventy-one per cent of them were considered average in reference to the capacity to endure frustrating situations.

Political, religious, and cultural attitudes could not be measured because the questionnaire given, although anonymous, aroused hostile reactions and opposition from the subjects.

#### RESUMO

Mediante a aplicação do Teste de Tsedek para medir atitudes morais e do teste de Rosenzweig a 200 adolescentes de La Plata e arredores, selecionamos 80 sujeitos cujos dados se mostravam mais completos.

Encontramos que 71% dos casos estão dentro da média esperada com relação a sua capacidade para tolerar situações frustrantes. Não foi possível que se estudasse atitudes políticas, religiosas e culturais, devido ao fato que o questionário apresentado aos sujeitos despertou resistência e reações hostis ainda que se lhes explicasse o caráter anônimo do estudo.