Brit. J. Psychiat. (1966), **112**, 1205–1215

Crosscultural Definitions Applied to the Study of Functional Psychoses in Chilean Mapuches

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Introduction

Since Kraepelin's classical description of cryptogenic or functional psychoses—manic-depressive, schizophrenia and paranoia—the possible influence of culture on the frequency of these clinical reactions has been considered. Although it is recognized that there are other types of mental disorders peculiar to certain cultural groups (8, 12), it is acknowledged that the kinds of psychoses mentioned above are repeated in the various cultures (5).

Nevertheless, some authors (6, 11) mention certain uncommon characteristics in the schizophrenic psychoses of indigenous or primitive peoples.

Lin and Stanley (7) summarized the findings made in Taiwan by Hsien Rin and Tsung-Yi Lin (11), the most important study on this subject. In this some clinical aspects of 45 functional psychoses found through a survey made in the field among a group of 11,442 Formosans of Malayan-Polynesian origin was compared with the characteristics of the same psychoses in a comparable group of Chinese. For both groups the authors followed the Bleuler criteria, but although the symptomatology of the psychotic aborigines did not differ, according to them, from that of the Chinese group, they point out the following characteristics in the psychoses of the aborigines group.

"The great majority of the cases (84·5 per cent.) had an abrupt beginning, and only 15·5 per cent. ran a chronic course. The duration of the psychotic episode had a tendency to be short; 44·4 per cent. recovered within three months, 52·6 per cent. within six months, 65·6 per cent. within a year, and 87·5 per cent. within two years; only 12·5 per cent. were sick over two years. Half of the cases suffered only one psychotic episode, and a third, multiple episodes; the remainder followed a chronic course. Very few of these chronic cases suffered severe deterioration, the majority being only partially affected in their social adaptation. The majority of the psychotics, other than those acutely ill at that moment, were socially quite well adapted." It should be pointed out that "none of the psychotics had received medical or psychiatric treatment".

Most of these psychoses in aborigines differ, then, from the clinical characteristics of schizophrenia, manic-depressive psychosis or classic paranoia: a sudden beginning, total recovery within a short period without treatment, occurrence of only one psychotic episode, etc. This empirical finding obtained in an epidemiological field survey leads one to suspect the existence of a peculiar clinical form in the functional psychoses of individuals belonging to indigenous cultures.

Starting from a structural psychopathological theory of psychosis and employing the hypothetical deductive method, one of the present writers (J.M.) has presented the same problem from a different angle (9). The descriptive hypothesis defines psychosis as "a mutation, both unexpected and productive, of the structure of awareness of reality or of one of its components (affective or cognitive awareness of reality)". This precise definition delimits and gives adequate theoretical value to numerous old descriptions and empirical statements regarding awareness of reality in the psychoses.

The proposed concept is generic, unitary, centred in both a nuclear psychopathological character (the mutated structure of the awareness of reality), and also is relativistic, since the structure of the awareness of reality and with it the structure of the psychotic mutation may vary from one culture to another.

Within the genus we can distinguish three kinds of psychoses in decreasing degrees of

https://doi.org/10.1192/bjp.112.493.1205 Published online by Cambridge University Press

involvement of the awareness of reality: (1) total alienation of awareness of reality or oneiriform psychoses, characterized by two psychotic criteria of total awareness of reality: (*a*) scenographic pseudo-perceptions, and (*b*) delirious judgments.

(2) Alienation of the affective awareness of reality or affective psychoses, individualized by two psychotic criteria of affective awareness of reality: (*a*) unexpected intensity and absence of modulation of basal affectivity, and (*b*) delusional-like judgments.

(3) Alienation of cognitive awareness of reality or cognitive psychoses, which are subdivided in their turn into two sub-species, unitary and split. The first shows only the psychotic criteria of cognitive awareness of reality *vis-à-vis* a given stimulus; the second, shows a coexistence *vis-à-vis* the same stimulus of the psychotic criteria and the normal criterion of cognitive awareness of reality. The psychotic criteria of cognitive awareness of reality would be three: (*a*) fragmentary pseudo-perceptions, (*b*) delusional judgments, and (*c*) mutation of semantic relations.

The pathogenic explanatory hypothesis, postulated in relation to the definition just set forth, could be summarized as follows (10): basing our conclusions on the one hand on the effects of the psychotomimetic drugs (lysergic acid, etc.) which, when used on animals produce a central synaptic block, and on the other hand on the biochemical hypothesis of memory and learning, we postulate that the diverse degrees of unexpected mutation of the awareness of reality (oneiriform, affective and cognitive) may be due to parallel, concomitant degrees of a central synaptic block; this last would impair the utilization of the engrams relating to the pre-psychotic or normal reality, learned from infancy by each individual in his cultural group of reference. On the other hand, once the new (psychotic) structure of the awareness of reality is attained, such structure would have a greater tendency to be fixed by the learning process the nearer it is to the cognitive pole. This would explain the tendency of the clinical cognitive psychoses (paranoia, schizophrenia, etc.) to become chronic.

Another deduction from our hypothesis which has clear epidemiological implications is that the cognitive awareness of reality, which has an analytical rational character, would be the product of an evolutionary differentiation of the total awareness of reality. If this deduction were right, children, oligophrenics and members of primitive or indigenous cultures should show a relative predominance of oneiriform over cognitive psychoses when there is a psychotic breakdown. This deduction is supported by the clinical study of psychosis in children and oligophrenics. The purpose of our study (4) is to evaluate this cross-cultural definition of psychosis through a study of two culturally different groups: the average Chilean population and the Chilean aborigines.

The average Chilean population, which represents the bulk of the Chilean nation, has European and aboriginal ancestors and an occidental European culture, and retains few if any, important traces of the original indigenous cultural component.

The native population, the Mapuche, is the most important autochthonous group in the country (some 225,000 persons in a total population of 7·5 million inhabitants). Their prodigious warlike ability made it possible for them to maintain their independence first from the domination of the Incas and later from that of the Spaniards (1). In fact, seventy-four years elapsed after Chile became an independent nation before they could be incorporated as nationals of the Chilean state (1884), maintaining their essential characteristics and occupying the territory of their forebears in agricultural reservations, mainly in the provinces of Cautín, Malleco and Valdivia, in the central-southern section of the country. This is a patrilineal and patrilocal society, centred at present in a technically primitive agriculture (2). Since 1940, their migration toward the cities has notably increased, especially during the last ten years. At present, it is estimated that 10,000 live in Santiago, working as unskilled labour (bakery workers, domestic servants, etc.). Although they have legal Chilean nationality and are slowly being assimilated, they have not lost their firmly structured cultural characteristics: language, social organization, rites, artistic production, etc. (3).

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As a preliminary step to the field study, we will attempt a comparison, through the study of clinical records of average Chileans, non-Mapuches (called Chileans from here on) and of Mapuche Chileans (Mapuches, from here on) hospitalized in the Psychiatric Hospital of Santiago, of the clinical characteristics of the functional psychoses of the two groups. The analysis of these clinical records is the purpose of this publication. In the primitive cultures there seems to be an insufficient differentiation of the affective awareness, and especially of the cognitive awareness of reality. The psychoses predominating in these groups, if compared with groups of higher cultures, would appear to be the oneiriform over the affective and the cognitive psychoses. The normal structure of the awareness of reality in these people would supposedly function with a predominance of total criteria of awareness of reality. The analytic, abstract differentiation which implies the cognitive awareness of reality would be, functionally, on a second level.

Starting from these antecedents, we can formulate our hypothesis for this study as follows: in the total functional psychoses of the Mapuche group, analysed in the clinical records (and particularly in the total oneiriform and cognitive psychoses) there should be a larger proportion of oneiriform psychoses than in the Chilean control group, with a corresponding inverse proportion (less for Mapuches than for Chileans) of cognitive psychoses.

Material and Method

From the clinical records filed in the Psychiatric Hospital of Santiago and classified according to the year of discharge between 1940 and 1963 (both years included), those belonging to patients one or both of whose parents had Mapuche surnames were selected. There was a total of 136 clinical records of Mapuche patients, and in 78 of these cases both the paternal and maternal surnames were Mapuche, while in the remaining 58 only one of the parents had a Mapuche surname (in 7 of the latter cases one surname was given on the blank). At the same time a random sample of case histories with non-Mapuche surnames was selected in equal number for each year to those with Mapuche names. A total of 272 clinical records was thus obtained—136 in each group.

Later, upon reviewing the data, it was discovered that classification according to the year the patient was discharged gave no clear indication as to the beginning of the illness and, in order to be able to make a more accurate comparison, both groups were reclassified according to the year of admission for the last episode. Table I shows the clinical records distributed according to this criterion.

Besides studying the data specifically set forth in the clinical records (Table I), such as sex, age, trade, etc., a special analysis was made of the clinical diagnosis at the time the patients were discharged after the last episode. In all cases in which the clinical condition showed a

Table I

*Distribution of Mapuches and Chileans, according to Sex and Year of Admission to the Psychiatric Hospital of Santiago. 1940–1963**

Period	Mapuches			Chileans			Total		Grand
	Men	Women	Total	Men	Women	Total	Men	Women	total
1940–1944	4	2	6	3	4	7	7	6	13
1945–1949	6	4	10	11	2	13	17	6	23
1950–1954	14	9	23	21	13	34	35	22	57
1955–1959	32	14	46	15	7	22	47	21	68
1960–1963	24	27	51	33	27	60	57	54	101
Total	80	56	136	83	53	136	163	109	272

* In cases recording more than one admittance, only the last was considered.

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functional psychosis, both a revision and an epicrisis of the case history were separately undertaken by two of the writers, and a classification was made into oneiriform, affective and cognitive psychoses, in accordance with the criteria formulated by Marconi (9). This classification was made independently by members of two sets of judges, one for the Mapuche group and another for the Chilean group, with a common judge for both groups (J.M.).

Results

The analysis of the results will be made using the clinical diagnoses as point of reference.

In the first section we will give a breakdown of both samples beginning with the traditional clinical diagnosis, and in the second we will do likewise employing the structural psychopathological criteria of Marconi as already set forth. Before giving the results, it is pertinent to point out some of the limitations of the method of analysing the samples of clinical records relative to our study.

(*a*) The patients to whom we refer in this paper have not been examined by the writers, and accordingly we have been confined to analysing the data on record.

(*b*) Since the Mapuche population lives chiefly in three provinces more than 500 kilometres south of Santiago, with only a limited access to the Psychiatric Hospital, particularly between 1940 and 1955, we must expect important differences in the type of patients hospitalized.

It is probable, furthermore, that there is a difference in the attitude toward hospitalization between the Mapuche and the Chilean cultures.

(*c*) Finally, it is well known that the diagnostic criteria traditionally employed in a particular psychiatric hospital vary over the years.

With these limitations in mind, we will set forth below the results obtained:

Table II shows the distribution of our material in accordance with traditional clinical diagnosis. In both groups the most frequent diagnosis was of schizophrenia, which was present in half the Chilean patients and in 38 per cent. of the Mapuche. However, it is worth pointing out that under the group Functional Psychoses there was a marked predominance among the Mapuches of the diagnosis "Psychotic episode in the feeble-minded", which was found almost with the same frequency as schizophrenia, in contrast with the Chileans who were so diagnosed in only 21 per cent. of the cases. Under the heading "Other functional psychoses", made up principally of reactive psychoses, the Mapuches also clearly surpassed the Chilean group. The total of the two diagnostic items mentioned represent 60·6 per cent. of the diagnoses of functional psychosis in the Mapuches as compared to 25·6 per cent. in the Chilean group. On the other hand, if we consider the rest of the diagnoses, the Chileans present a percentage of alcoholism amounting to 25·8 as compared to 9·2 among the Mapuches.

If we consider all the diagnoses, totalling 136 cases per group, the Chileans account for 17·6 per cent. of the diagnoses of alcoholism without complications in comparison with only 4·4 per cent. among the Mapuches. The alcoholic psychoses amount to 19·8 per cent. of all the Chileans diagnosed and 15·6 per cent. of the Mapuches, the neuroses amounting to 7·4 per cent. and 3·7 per cent. respectively.

Table III shows objectively what we stated at the beginning of this section: the group of patients who come to the Hospital is constituted, among the Mapuches, by 52·2 per cent. functional psychoses, while only 31·6 per cent. of the Chileans are so diagnosed. The difference is statistically significant ($p > \cdot 001$).

Table IV gives the distribution by ages of the two groups studied. The difference in averages is significant in that the Chilean group is older if all the diagnoses are included, a difference which disappears when the age averages of the two groups listed under functional psychoses are compared. The variance is greater in the Chilean group than in the Mapuche, although the difference is not significant ($F = 1 \cdot 19$, $p < \cdot 05$). In this last category, most of the patients (94·4 per cent. of the Mapuches and 90·7 per cent. of the Chileans) are under fifty years of age.

The distribution of the samples of functional psychoses according to the structural diagnoses is given in Table V. Noteworthy is the great difference in the proportion of oneiriform

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TABLE II

Distribution of Mapuches and Chileans, according to the traditional clinical diagnosis. 1940–1963

I. Functional psychoses	Mapuches		Chileans	
	Number	Per cent.	Number	Per cent.
(a) Schizophrenia	27	38·0	21	48·8
(b) Manic-depressive psychosis	0	0	6	14·0
(c) Paranoia and similar conditions	1	1·4	5	11·6
(d) Psychotic episode in the feeble-minded	26	36·6	9	21·0
(e) Other (reactive, etc.)	17	24·0	2	4·6
Total I	71	100·0	43	100·0

II. Other diagnoses	Number	Per cent.	Number	Per cent.
(1) Exogenous psychoses				
(a) Alcoholic	21	32·3	27	29·0
(b) Other	8	12·3	9	9·7
(2) Chronic organic conditions				
(a) Dementia	2	3·1	4	4·3
(b) Other	4	6·2	4	4·3
(3) Oligophrenia	6	9·2	3	3·2
(4) Epilepsy	10	15·4	10	10·8
(5) Alcoholism	6	9·2	24	25·8
(6) Psychopathic personalities	3	4·6	2	2·1
(7) Neuroses	5	7·7	10	10·8
Total II	65	100·0	93	100·0
Grand total	136		136	

TABLE III

Distribution of Diagnoses of Functional Psychoses and Other Diagnoses in Mapuches and Chileans. 1940–1963

	Mapuches		Chileans		
	Number	Per cent.	Number	Per cent.	Total
Functional psychoses	71	52·2	43	31·6	114
Other diagnoses	65	48·8	93	68·4	158
Total	136	100·0	136	100·0	272

χ^2 : 11·84 $p > \cdot 001$

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TABLE IV

Distribution of Mapuches and Chileans, according to Age. 1940–1963

Age groups	All the diagnoses Mapuches	All the diagnoses Chileans	Functional psychoses Mapuches	Functional psychoses Chileans
15–19	18	14	9	5
20–29	46	30	26	14
30–39	42	44	26	16
40–49	14	19	6	4
50–59	7	20	2	3
60 and over	8	9	2	1
No data available	11	0	0	0
Total	136	136	71	43
Mean	32·33	36·67	30·14	32·18
	t=2·59 p=·02		t=0·98 N.S.	

psychoses among the Mapuches (60·6 per cent.) as against the Chileans (16·3 per cent.). At the other extreme, cognitive psychoses among the Mapuches reached 39·4 per cent. and among the Chileans, 69·8 per cent. There were no cases of affective psychosis among the Mapuches covered by our study.

The value of χ^2, when the columns under Oneiriform and Cognitive Psychoses are compared, is 16·97 with $p = > \cdot 001$, which supports our initial hypothesis to the effect that within the total of functional psychoses the Mapuches have a greater proportion of oneiriform psychoses than the Chilean control group.

A typical case of oneiriform psychoses is that of E.H.V., a Mapuche woman 25 years of age, a domestic servant, who has had four years of primary schooling. Some time ago she was employed for a year as a domestic servant in Temuco, a city of 100,000 inhabitants, capital of the Province of Cautín. Two days before entering the Hospital, she came to Santiago from her Indian reserve located in a rural area near Tolten. She came provided with the address of a friend of her former employer in Temuco in order to obtain work as a maid in the capital. With considerable difficulty, since she was a stranger to the city, she went to the address given and learned, with great distress, that there was no such number as the one which had been written down for her. In the street, a few minutes later, she began to talk to herself, to cry and to complain because she had not been given work even though she was employed; she "saw" her Temuco employer together with her employer's husband and talked with them until, suddenly, they disappeared. A passer-by took her to the Psychiatric Hospital. When admitted, the patient was excited, her hair disarranged, wept and talked to herself. She felt that her body was rising in the air and that she was in heaven, for this reason everything she saw seemed more luminous. The doctor who examined her was God and the nurses were angels. At another time, she "saw" her ex-employer from Temuco who "read her future" in cards and who was looking for three pieces of cloth. She was afraid that she wanted to practise "witchcraft" upon her, saw her as a "witch doctor" and, becoming frightened, tried to run away. She was sure that "a spell had been cast upon her".

Two days after her admission, chlorpromazine having been administered, she was no longer troubled by illusions or hallucinations (scenographic pseudoperceptions), nor did she express any pathological judgments based upon them (delirious judgments). She remembered to some extent the psychotic content. A few days later she was discharged with the diagnosis of "reactive psychosis".

Each case of functional psychosis among the Mapuches was classified independently by two of the authors (L.M. and J.M.) in accordance with the new criterion. In 57 of the 71 cases there was agreement in the structural classification, which represents 80·3 per cent. of the cases. With regard to the Chileans, the judges (P.N. and J.M.) agreed in 35 of the 43 cases, which is to say in 81·4 per cent. of the total. The cases in which there was a discrepancy of opinion were classified by the judge excluded from each set of judges, and their final classification decided by majority vote.

Although the qualification made by the judges was not made blindly, that is to say, they had before them the traditional diagnosis when

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TABLE V

Distribution of the Sample of Functional Psychoses among Mapuches and Chileans, according to Structural Diagnosis. 1940–1963

	1		2		3			
					Cognitive psychosis			
Functional psychoses	Oneiriform psychosis		Affective psychosis		Unitary		Split	
	Number	Per cent.	Number	Per cent.	Number	Per cent.	Number	Per cent.
Mapuches (71) ..	43	60·6	0	0	3	4·2	25	35·2
Chileans (43) ..	7	16·3	6	13·9	3	7·0	27	62·8

χ^2 between columns 1 and 3 = 16·97 p > ·001

applying the new criteria, it is interesting to analyse the coincidence of the structural diagnosis with groups of traditional diagnoses.

The high degree of agreement between the traditional diagnoses of "psychotic episode in the feeble-minded" and "other psychoses, chiefly reactive", and the structural diagnosis of "oneiriform psychosis" is brought out in Table VI. The coincidence of the 6 cases of "manic-depressive psychosis" with the structural category "affective psychosis" and the high agreement of the "schizophrenia, paranoia and similar states" group with "cognitive psychoses" is also observed. The index of association in the Mapuche group, between the first two and the last two diagnostic categories (excluding affective psychoses) is 0·59 χ^2=38·31 p > 0·001. For the Chilean group, C=0·56 χ^2=16·47 p > 0·001.

Taking the structural diagnosis as a basis, we studied the relation between the types of diagnoses and the sex of the patients.

Table VII shows the predominance of oneiriform psychoses among the women, as compared to the men, in both the Mapuche group and the Chilean. The reverse is true with regard to cognitive psychoses, which in both cultural groups clearly predominate among the men, as compared to the women. The difference is significant in the Chilean group only (χ^2=9·08. p > 0·01).

If the percentage differences as regards oneiriform and cognitive psychoses are compared within each sex, it is seen that in the male Mapuche group there are no differences between the frequencies of both types of psychoses. In the male Chilean group, on the other hand, oneiriform psychoses do not appear, but this does not mean that in a larger sample they would not be present. The female Mapuche group shows an obvious predominance of oneiriform psychoses over the cognitive, a difference which is reversed in the female Chilean group in which there is a larger proportion of cognitive psychoses.

The relation between the degree of education and the distribution of oneiriform and cognitive psychoses is set forth in Table VIII.

It will be seen in both groups, though more clearly in the Mapuche group, that as the level of education of the subjects rises the proportion of oneiriform psychoses diminishes and, inversely, the proportion of cognitive psychoses increases. This tendency does not attain statistical significance. On the other hand, the difference in the level of education of the Mapuches and the Chileans grouped under functional psychoses is significant (χ^2=16·95 p > 0·001). In view of this difference, the degree of education as a contributing factor in the clinical form of the psychotic breakdown cannot be discarded. However, because of the small number of subjects having secondary education and the large number of those for whom no data is available it is impossible to reach further conclusions on the basis of this sample.

Finally, we analysed the relation between the

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TABLE VI

Distribution of Functional Psychoses among Mapuches and Chileans, according to Structural Criterion and Traditional Diagnoses. 1940–1963

Diagnoses	Mapuches						Chileans					
Structural	A-Oneiriform		B-Affective		C-Cognitive		A-Oneiriform		B-Affective		C-Cognitive	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Traditional:												
1. Psychotic episodes in F-M. Other psychoses (reactive, etc.) ..	39	90·7	0	0·0	4	14·3	7	100·0	0	0·0	4	13·3
2. Manic-depressive psychosis ..	0	0·0	0	0·0	0	0·0	0	0·0	6	100·0	0	0·0
3. Schizophrenia, paranoia and similar conditions	4	9·3	0	0·0	24	85·7	0	0·0	0	0·0	26	86·7
Total	43	100·0	0	0·0	28	100·0	7	100·0	6	100·0	30	100·0

Index of association of 1 with A and of 3 with C:
Mapuche group: C=0·59 $\chi^2=38\cdot31$ p > 0·001
Chilean group: C=0·56 $\chi^2=16\cdot47$ p > 0·001

TABLE VII

Structural Diagnoses of Functional Psychoses in Mapuches and Chileans, according to Sex. 1940–1963

Mapuches	Men Number	Men Per cent.	Women Number	Women Per cent.	Total Number	
1. Oneiriform psychoses	14	48·3	29	67·6	43	
2. Affective psychoses	0	0·0	0	0·0	0	
3. Cognitive psychoses	15	51·7	13	32·4	28	$\chi^2=3\cdot10$
Total	29	100·0	42	100·0	71	p > ·10
Chileans						
1. Oneiriform psychoses	0	0·0	7	31·8	7	
2. Affective psychoses	2	9·5	4	18·2	6	
3. Cognitive psychoses	19	90·5	11	50·0	30	$\chi^2=9\cdot08$
Total	21	100·0	22	100·0	43	p > ·01

TABLE VIII

Distribution of Oneiriform and Cognitive Psychoses in Mapuches and Chileans, according to Level of Education. 1940–1963

Mapuches	Illiterate No.	Illiterate %	Primary No.	Primary %	Secondary No.	Secondary %	No data No.	No data %
Oneiriform psychoses	14	77·8	20	60·6	1	33·4	8	47·1
Cognitive psychoses	4	22·2	13	39·4	2	66·6	9	52·9
Total	18	100·0	33	100·0	3	100·0	17	100·0
Chileans	No.	%	No.	%	No.	%	No.	%
Oneiriform psychoses	0	0·0	4	20·0	1	12·5	2	22·2
Cognitive psychoses	0	0·0	16	80·0	7	87·5	7	77·8
Total	0	0·0	20	100·0	8	100·0	9	100·0

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type of psychosis and the migration of the Mapuches, which was always from small settlements to places of larger population. For an appreciable number of the patients there were no data regarding migration. This being more noticeable in the Chilean group, it was not analysed. Table IX gives the data obtained on the Mapuches.

In view of the large proportion of individuals for whom no migration data were available, we limit ourselves to pointing out in this table the tendency for the proportion of oneiriform psychoses to diminish and for cognitive psychoses to increase among non-migrant groups (rural and urban under 100,000 inhabitants) as compared to migrant groups (constituted mainly by those migrating to an urban zone having more than 100,000 inhabitants).

Discussion

At the beginning of the statement of results, we pointed out the different composition as regards traditional diagnoses of the Mapuche and Chilean groups. This difference, which holds considerable significance (Tables II and III), is chiefly due to a larger number of alcoholics without complications, alcoholic psychoses and neuroses among the Chileans. The location of the Psychiatric Hospital in Santiago, a city having one-fourth of the total population of Chile, and the distance from the Mapuche zone, which is over 500 kilometres south of the capital, explain the difference. The Mapuches resort to the Psychiatric Hospital in greater numbers while in a psychotic state, and in lesser proportion for uncomplicated alcoholism or neuroses.

The similarity in ages in both groups with regard to functional psychoses (Table IV) is worth noting, since it might be argued that age could be one of the factors which determine the type of psychoses.

The results given in Table V are essentially the most important of this study: the difference in the proportion of oneiriform and cognitive psychoses in the Mapuche group, 43 and 28, when compared with the Chilean group, 7 and 30, respectively, is statistically significant ($p > 0 \cdot 001$) and bears out our hypothesis. The level of agreement reached by the several authors in their use of the structural classification is satisfactory at this stage of our work, making it seem likely that we shall be able to present, at the next step, a more accurate analysis of the reliability and validity of the method (4). The comments made to explain the different proportions in the types of functional psychoses among Mapuches and Chileans, based on the postulated structure of the awareness of reality, are amplified by the relationship found to exist between that clinical phenomenon and the variables of sex, education and migration (Tables VII, VIII and IX). In general, there is a larger proportion of oneiriform psychoses and a smaller proportion of the cognitive among women than among men. The proportion of oneiriform versus cognitive psychoses also varies according to the degree of education, although the data in Table VIII do not allow a detailed analysis of this relationship. The degree of education, imparted according to the Chilean occidental cultural norms, would, on the other hand, bear a relation to the learning of said norms and therefore are linked to the degree of acculturation attained by the Mapuche group.

The influence of this acculturation upon the

Table IX

Distribution of Oneiriform and Cognitive Psychoses among Mapuches, according to Migration. 1940–1963*

Psychoses	Non-migrant		Migrant		No data	
	Number	Per cent.	Number	Per cent.	Number	Per cent.
Oneiriform	12	63·2	12	46·2	19	73·1
Cognitive	7	36·8	14	53·8	7	26·9
Total	19	100·0	26	100·0	26	100·0

* In all cases, migration was from centres of lesser density of population to those of greater.

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psychopathological structure of functional psychoses is clearly suggested in Table IX, referring to migration, but for the reasons already given, we are unable to reach any definite conclusions. The sex, the level of education, and the effect of migration all require additional research to determine their specific role. We also believe it necessary to study, in subjects who are not psychotic, the structural characteristics of the awareness of reality in the Mapuche and Chilean cultures, both among urban and rural groups.

We believe that the present study opens the way for a deeper understanding of the structure of functional psychoses and for an analysis of the influence of diverse cultural and other factors in determining their clinical form. In addition, the results so far obtained support the deductions of a structural psychopathological theory of psychosis formulated by one of the authors.

Summary

(1) Using as a basis empirical studies in the field and the deductions of a structural theory of psychosis of one of the authors (J.M.), the existence in primitive or indigenous cultures of functional psychoses different from those traditionally accepted since the time of Kraepelin is postulated.

(2) According to the theory mentioned, psychoses can be divided into oneiriform (confusional), affective, and cognitive (paranoia, schizophrenia); it is assumed as a working hypothesis that there is relatively a greater proportion of oneiriform psychoses in individuals having an indigenous (Mapuche) culture than in the Chilean control group whose culture is predominantly western European.

(3) An analysis of the last admission of 272 clinical case histories between the years 1940 and 1963, revealed 71 cases of functional psychoses in the sample of 136 Mapuches and 43 cases in the Chilean control sample (Table II).

(4) The samples of functional psychoses, similar in sex and age, were reclassified individually according to the new structural criterion of psychosis. There was an 80·3 per cent. agreement between two judges in the case of the Mapuche group and an 81·4 per cent. agreement in that of the Chilean group. The traditional diagnoses "Psychotic episode in the feeble-minded" and "Other psychoses (reactive, etc.)" agree closely with "Oneiriform psychoses". The same is true for the group "Schizophrenia and Paranoia and Similar states" and "Cognitive psychoses" (Table VI).

(5) The Mapuches evince 60·6 per cent. oneiriform psychosis and 39·4 per cent. cognitive psychosis against 16·3 per cent. and 69·8 per cent., respectively, for the Chilean group. This result ($p > \cdot 001$) is significant and supports the working hypothesis (Table V).

(6) The proportion of oneiriform and cognitive psychoses according to sex, level of education, and migration is analysed. The latter only with reference to the Mapuche group but with suggestive results, indicating the need for further research (Tables VII, VIII and IX).

Acknowledgments

This study was supported by Grant No. DA-ARO-092-65-G73 of the Defense Research Office, U.S. Army Element, Rio de Janeiro, Brazil.

We wish to thank Mrs. Heliette Saint-Jean for her valued co-operation in the statistical analysis of results.

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(*Received 25 April, 1966*)

https://doi.org/10.1192/bjp.112.493.1205 Published online by Cambridge University Press