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SOCIOCULTURAL CHANGE AND MENTAL ILLNESS AMONG YORUBAS[1]

by

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Comparative Studies of Cultural Change

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A great deal is said and written currently to indicate that people of developing nations experience serious psychological difficulties as they undergo the processes of social and cultural change. This report is concerned with acculturative stress as a cause of psychiatric symptoms, but its primary purpose is to examine different forms and conditions of modernization in order to gain further knowledge about when emotional problems are produced and when they are not.

Research Background. The data to be presented comes from the Cornell-Aro Mental Health Research Project which was an exploratory investigation of psychiatric epidemiology in a non-Western environment.[3] Field work was done in 1961 among a sample of predominantly rural people belonging to the Yoruba tribe of Nigeria. In the first stages of this study, we were concerned with questions that needed attention before theoretical interests could be taken up regarding the relationship between factors in the environment and the prevalence of psychiatric disorder. These antecedent questions had to do with the problems of identifying psychiatric disorder in a contrasting culture, developing methods of sampling, and carrying out community studies in order to understand the Yoruba culture and the village as a

sociocultural network of interpersonal relations. The main theoretical question which guided the design of the study was to see if residents of disintegrated villages have a higher prevalence of psychiatric symptoms than people living in well-integrated communities. This was also the main issue of the Stirling County Study done in Maritime Canada.[4] The Nigerian Study was intended, in part, to be a cross-cultural replication of the North American investigation in order to find out if this particular association of sociocultural and psychiatric factors persisted when studied in a different culture.

The methods used in our Nigerian study and the findings which resulted have been reported in Psychiatric Disorder Among the Yoruba. Although the psychiatric findings involve all the various types of symptomatology associated with mental illness, the symptom rates for non-hospitalized groups such as the Yoruba villagers refer overwhelmingly to psychoneurotic and psychophysiologic malfunctioning--the types of disturbances, in other words, which can most reasonably be linked to stressful life circumstances. We found that people living in disintegrated villages did, in fact, have a significantly higher prevalence rate than residents of integrated villages and that this difference in environment especially affected the mental status of women. At the same time, when comparing men and women in the sample as a whole,

irrespective of the level of integration of villages in which they lived, we found that the men were somewhat more prone to have psychiatric symptoms than women. We interpreted this as possibly stemming from the fact that the male villagers, much more than the females, were exposed to the influences of Westernization. Although cultural change was not the chief interest at the time of field work, we gathered pertinent information about educational experiences, religious affiliations, and occupational history. The present paper is based on further analysis of these data to see if a more detailed assessment of sociocultural change would give additional leads about the environmental factors which relate to and possibly cause emotional disturbances among the Yorubas, especially Yoruba men. While this report has been formulated under the influence of the hypothesis that acculturation is stressful, the attempt is not to prove or disprove an hypothesis. Rather it is to describe, with the help of statistical devices, a situation in which acculturation was occurring and was being experienced by a group of individuals about whom we had mental health information.

Vignette of the Culture and History of the Study Area

The Yoruba tribe numbers approximately 5 million of Nigeria's 40 million population. Independence was gained from England in October of 1960, and Nigeria as a nation is a federation of four regions, the Yoruba tribe being dominant in the Western Region, which is located on the Atlantic sea-

board and has, historically, been the site of the earliest and most intensive contact with Western culture. The villages selected for this study are mainly in the Egba subdivision of the Yoruba tribe. The center of the Egba District is the city of Abeokuta, and each of the villages was located within a six to seven mile vicinity of the city. Abeokuta is a typical pre-industrial city, and between the city and the surrounding villages there exists a close, symbiotic relationship characterized by frequent visiting and economic inter-dependence. Rural-urban differences are not as pronounced as in the United States, therefore, but in recent years the city has been a focus for much more Westernization than is true of the outlying communities.

The villages are tightly-knit residential groups organized according to lineage. Subsistence farming, the main occupation of men, centers on cassava and yams. Agricultural mechanization is being introduced in some parts of Nigeria where farming is sufficiently large-scale to warrant it, but the small farmers in the villages of our study were almost entirely traditional in agricultural practices, and a short handled hoe and machete were the common implements used. One of the chief marketable products is palm oil, the processing of which is done by women, also in a traditional fashion. Many women are also petty traders. The village houses are made of mud and roofed with thatch or corrugated iron. Little

furniture was designed as part of the aboriginal culture, but nowadays a few homes have wooden chairs, clocks, mirrors, or calendars attesting to Western influence. Traditional clothing predominates, though occasionally one sees a man wearing a Western-style outfit of trousers and singlet.

Role alignments and interpersonal behavior are heavily committed to male dominance and the seniority principle. Deference is signalized by special kin-terms as well as the formalities of prostrating and genuflecting. Polygyny is the ideal form of marriage though it is not common in the rural areas because few men can afford more than one wife. Great value is placed on fertility, and both men and women gain social esteem by the number of their offspring.

The indigenous religion is animistic; tribal and lineage deities called "orishas" are worshipped; and the sacrifice of humans and animals is believed to be protection against misfortune. At the present time human sacrifice is illegal and probably infrequent. Islam began to infiltrate into Yorubaland from the north in the 16th century and was rather easily accepted or was grafted onto the indigenous religion due to the common beliefs and practices about polygyny and animal sacrifice. The Atlantic slave trade flourished in Yoruba country until its abolition in 1807 and subsequent suppression. Christianity was introduced during the 19th century while Nigeria was a British Protectorate. Although

many aspects of Christianity have been accepted by its adherents, several of the tenets which represent radical departure from tradition such as the proscription against polygyny have met tenacious resistance. One of the earliest missionary entries was into Abeokuta which is 60 miles from the coast. The immediate establishment of mission schools there and extraordinarily strong proselytizing are said to be the reasons that many Egba Yorubas who lived in the city were among the first Nigerians to receive good education. Gradually a few opportunities for education were made available at the village level. Although education was of very limited degree for the adults in our study group, possibilities for the future through their children were evident in that free primary education was put in operation in the Western Region in 1955. The Yorubas have continued to experience increasingly accelerated modernization, but acculturation has been differentially experienced by urbanites and villagers, by men and women, and by the young and the old. And cultural changes have been selectively accepted and rejected--Western education was well received, monogamy not; bicycles are valued, Western food not. For the meaning of sociocultural change in terms of personality functioning, therefore, it seems wise to scrutinize the phenomenon of modernization as a collection of processes, some of which may be threatening, some not, some involving mainly technological changes, some

implying fundamental reorientations of ideology, some easily accepted as a nearly total importation and substitute, some imperfectly learned and poorly integrated with the pre-existing system.

The Sample and Measurement of Mental Health

The total sample upon which this report is based consisted of 326 adult Yorubas living in 15 villages and 8 sections of Abeokuta. Two sampling operations were carried out. One was done to obtain a characteristic group of environmental units--the villages and parts of the city.[5] The other was to acquire a representative sample of adult individuals from the environmental units--the 138 men and 124 women from the villages and the 32 men and 32 women from the city.[6]

Each of the sample members was interviewed by a psychiatrist using an interpreter to assist in the collection of systematic survey material about mental and physical health. The village headman was also asked about each individual in an effort to obtain outside evidence of the social adjustment of the survey respondents. The psychiatrist also asked a limited number of questions about occupation, education, religion and other social experiences. Half the sample were also interviewed at greater length by a social scientist in order to fill out a picture of life history and perception of the environment.

The psychiatric materials were evaluated first individually

and then jointly by two psychiatrists who rated each individual on a 4 point scale: A meaning "definitely a psychiatric case," B meaning "probably a psychiatric case," C "probably not a psychiatric case," and D "definitely not a psychiatric case." In order to present these mental health data, we have found it useful to employ a statistic called the ridit, a term which means "index relative to an identified distribution." The ridit has a range from 0 to 1 with a mean of .50 in the identified distribution which is the reference population.[7] The ridit thus provides a way of summarizing clinical judgments along a scale of unequal intervals in reference to a continuum of psychiatric illness to wellness. The mean ABCD ridit for a particular sub-group of people within the identified distribution can be interpreted as the probability that a person selected at random from this sub-group is worse off or better off in the psychiatric sense than another individual selected at random from the distribution as a whole. Ridits above .50 refer to relatively poor mental health and ridits below .50 refer to relatively good mental health. The mean ridit for Yoruba men is .52 and that for Yoruba women is .47. This indicates that men have a somewhat greater probability of displaying psychiatric symptoms than do women.

Differential Acculturation

The indicators of acculturation to be used in this analysis concern enlightenment, education, religion, and occupation.

In each of these respects, it appeared that Yoruba women, especially the villagers, live in a separate world from that of men and that their world has not yet been seriously encroached upon by the demands and reorientations of cultural change. In the occupational sphere, there had been virtually no changes from tradition except insofar as women shared with men the conversion to a cash economy. Although Yoruba women traders are noted for their business acumen, this is a reputation of traditional standing. In religion, 49% gave Islam as their affiliation, and 40% indicated Christianity. There is a saying among the Yorubas that "a woman has no religion" meaning that it is her role to follow father and then husband in these matters. This custom applies to the new religions; and the view that religious change was of little psychological relevance for women was strengthened by hearing comments such as came from one woman who gave Christianity as her affiliation but said that to call her a Christian was like using a "nickname."

Most significant for this analysis is the fact that educational opportunities have been differentially used by men and women in this culture. Only 13% of the village women had any educational experience or evidence of enlightenment. One or two of these women had been in school for as long as 2 years, but for men the range reached up to 8 or 9 years in a few instances. The difficulty in trying to use education as an indicator of change for women is reflected not only in

that it was minimal and applied to so few individuals, but also that the women themselves did not look upon it as a meaningful experience. One woman said that she had been to classes for a while as a youngster but she "couldn't remember anything about it."

This situation of differential acculturation between the sexes, although it is of interest in understanding the dynamics of cultural change at the level of how it affects a group as a whole, gives very little to go on in studying the mental health of individual women. Consequently the remainder of this analysis focusses on Yoruba men.[8/]

Sociocultural Changes and Mental Illness Among Yoruba Men

A key concept in this study of change is "enlightenment." To label a Yoruba man as enlightened means that he reported to us that he had the ability to read the Yoruba language, which was transcribed into an orthographic system during the 1850's. This is considered a minimal criterion, and among the enlightened men there were some who could also read and/or speak English. Having a reading knowledge of Yoruba does not necessarily mean that the person had ever had any kind of formal academic experience. What it does mean is that he had somehow acquired an intellectual ability which was not indigenous to the native culture but which, once achieved, can be presumed to have created in him an avenue of communication through which further new ideas and new information could be

implanted. Yoruba is now used in printed newspapers and bulletins, for example, and numerous other forms of information conveyance.

When one thinks of the educational achievements of the many Yorubas and other Nigerians who are now involved in administering a nation of their own, obviously the enlightenment among villagers is extremely meager and is probably best referred to as "a little bit of enlightenment." Of the enlightened group, only one man in the villages had completed Standard VI which culminates a primary education. None of the respondents in the villages was sufficiently familiar with English to be interviewed in that tongue so an interpreter was always used, and it was not uncommon for one of them to qualify the information about his language ability by saying that he could read or speak English "small, small." Nevertheless, something had transpired within the enlightened men which sets them apart from the other villagers.

The term "enlightenment" has certain unfortunate connotations in this context because it may suggest an unintended disparagement of the native culture. But as a matter of fact it has been chosen purposefully because I believe it does a better job of indicating a psychological change within an individual's personality than such kindred concepts as "having been to a school" or "being educated." It is possible for an individual to attend a formal school as a behavioral activity

and at the same time for very little psychological change or activity to take place. It is also true that in the broad sense of the word, every adult Yoruba ia "educated" to accomplish the routine tasks of his culture and society.

The point about enlightenment referring to an internal change is of some importance because it is reasonable to think that changes experienced at this level will be more relevant to emotional disturbances and psychiatric problems than those which are peripheral. This emphasis on psychological change does not diminish the fact that enlightenment is also a sociocultural phenomenon. Hallowell has described culture as a "psychological reality." Culture is something people internalize in their intellectual and emotional orientations that patterns action and behavior and structures the way they perceive and interact with their environment. Sociocultural changes which have this psychological as opposed to behavioral focus (ideological as opposed to technological) are not, of course, limited to academic learning. A religious conversion would have the same meaning, and among Nigerian Yorubas, enlightenment cannot be divorced from religion. The Christian missionary societies had sponsored and financed the development of an orthographic system for the Yoruba language, and as early as 1862, the New Testament had been translated into Yoruba. By the time of our study, the Yoruba Bible was widely disseminated among Christians, and a few of the en-

lightened men had received only "Sunday School" education and were essentially limited to the Bible in the ability to read Yoruba. Also it was chiefly through Christian missions that Western-style schools were first established in villages. It is not surprising, therefore, that 63% of the Christian men in the villages had some enlightenment, and that 75% of the enlightened group were Christian.

The mission-sponsored educational program was patterned on the model of Euro-American schooling with emphasis on reading, writing, and arithmetic; and in the early stages little attention was devoted to vocational training in agriculture or other skills appropriate to the Yoruba environment. Historically, Islam promoted neither secular learning nor practical education. Nevertheless once enlightenment had been achieved by a few individuals who could then begin to instruct others, and when education became valued in and of itself, the link with the sponsoring institution weakened. Sixteen per cent of the Moslem men, most of whom had attended Koranic lessons, had learned to read Yoruba either through private lessons with an educated villager, or from their children who were in schools, or through the newly introduced adult education programs.

Affiliation with either the Islamic or Christian faiths would index a change from the indigenous animistic culture, and yet from the point of view of the Yoruba they are not equivalent in the various ways in which cultural change is

considered to be threatening to emotional stability. Christianity came into the culture much more recently than Islam, and it represents a much greater departure from the aboriginal customs especially in the symbolization of sacrifice and the prescription of monogamy. In addition it is the center of an active, conscious, and organized program which has encouraged as fast a rate of change as possible. It appears also to have had a more radical effect than Islam in requiring that the old ways be relinquished. Of the men who gave Islam as their religion at first questioning, 43% said subsequently that they also practiced "orisha" worship. Only 25% of the professed Christians indicated that they were also animists. For all of these reasons it will be important to inspect the inter-relationships between enlightenment and religious conversion as a combined index of acculturation, and for this purpose every person who gave evidence of association with Islam or Christianity was so classified even though he might also carry out animistic practices.

Thirty-four per cent of the village men were enlightened by our criteria. Table I shows a breakdown of the village sample by enlightenment and religion with mental health data. The first points to note are the mean ridits for the different religious groups for the sample as a whole, undivided as to enlightenment. The men who said that they adhere solely to animism have the lowest ridit (.45) which indicates somewhat

better than average mental health, the Moslems have a mean ridit of .49 which is almost squarely at the point indicating average mental health, and the Christisns have the highest mean ridit (.53) reflecting slightly worse than average mental health. Although these differences are not of the magnitude to be statistically significant they follow the expected trend; the men who have had the least experience with change in religion have the best mental health, and the ones who have taken the largest, fastest, and most complete step in religious change have the worst mental health. By inspecting the differences between the enlightened and unenlightened men, more dramatic evidence comes to view. There was only one anomalous animist who was also enlightened, and it is impossible to think of him as contributing to an understanding of the effect of enlightenment. For the Moslems, enlightenment makes no difference in mental health, but for the Christians a significant difference exists between the enlightened and unenlightened ($.05 > p > .02$). It seems probable that enlightenment is not only an indicator of internal change having to do with receptivity to new ideas but also that it is a measure of the internalization of the Christian doctrine.[9] If an ideological form of acculturation has been properly indexed by the information on enlightenment and Christianity, and if the mental health ratings properly index psychiatric reactions of Yorubas, these data lend credence to the idea that acculturation of

Table I

Religion and Enlightenment with
Associated Mental Health Ridits

	Unenlightened Village Men			Enlightened Village Men			Village Totals		
	n	%	$\bar{r}$*	n	%	$\bar{r}$	n	%	$\bar{r}$
Animist	14	16%	.48	1	2%	.11	15	11%	.45
Moslem	56	61%	.49	11	23%	.49	67	48%	.49
Christian	21	23%	.42	35	75%	.59	56	41%	.53
Total	91	100%	.47	47	100%	.56	138	100%	.50

* $\bar{r}$ = mean ABCD ridit

The lower the value of the mean ridit for a particular sub-group, the better the average mental health of that group. The higher the ridit value, the worse the average mental health. The closer the ridit is to .50, the more nearly the mental health of that sub-group parallels the average mental health of the sample as a whole.

this kind and of this rapidity is stressful and will be accompanied by high rates of anxiety and other emotional problems.

Since the ages of the village men range from 17 through 85, the variable of age needs to be introduced. Age is psychiatrically significant in its own right since research in Western society has indicated that the older age groups have worse mental health than the younger. It is especially important in this study because throughout the historical period spanned by the age range of the village men, the processes of cultural change have not been uniform. The young men have grown up in a world which is very different from that of their fathers. Many were born into Christianity for example, rather than being converted to it.

In traditional Yoruba society, the role of an elderly man is one of maximal social power, authority, and veneration. Although there may be debilitating biological factors at work among Yoruba men, the same as elsewhere, one might expect that these would be offset by the protections of their cultural role and that Yoruba seniors would have good mental health. Table II adds the factor of age to the data on ideological changes and mental health. We see that the mental health differences by age groups are unremarkable for the sample as a whole. For the unenlightened men the differences are slight, but the older men have somewhat better mental

health than the younger which is in line with the cultural role explanation especially as exemplified by the elderly animists. Among the enlightened, there is a curvilinear relationship with the young and the old having poor mental health and the middle-aged having average health. The curvilinear relationship is pronounced for the enlightened Christians and is much more muted for the Moslems. The effect of age on mental health ratings is the same for the enlightened and unenlightened Moslems, but it is significantly opposite for the Christians: that is the young enlightened Christian men have poor mental health while the young unenlightened Christians have better than average, and the elderly enlightened Christian men have very poor mental health while the elderly unenlightened Christian men have very good mental health. The middle-aged have about average health, but it is of interest to note that there are very few unenlightened Christians in this category (4 as compared to 19 enlightened middle-aged Christians). If our sampling is truly representative, this means that between 1905 and 1925 if a man became a Christian it was very likely that he would also become enlightened, and during this period the combination of Christianity and enlightenment does not appear to have had a markedly deleterious affect on mental health. The enlightened Christian elders, who are significantly different in mental health from the same-aged unenlightened Christians ($.027 > p > .01$) indicate that their

position of prestige in Yoruba society does not compensate for the unsettling experience of having been converted to Christianity and having become enlightened. Since they were born at the turn of the century or before, they were forerunners of change and were among the early group of villagers to be exposed to and incorporate enlightenment. Where the young enlightened Christians are concerned, it seems probable that their poor mental health is linked to the rising wave of expectations which has gained increasing momentum in the recent period. For the young Yoruba man who has internalized a new world view, it is not so much the acquisition of new skills and outlooks that is traumatic but rather what he sees as the future's lack of opportunity when he surveys the village life around him.

The mission program to convert Yorubas to Christianity and educate them has, until recently, been the only planned effort at cultural change in the villages. There has not been a comparably massive effort a technological innovation or industrialization except in the cities. This is especially noteworthy in that agricultural practices continue along entirely traditional lines in the villages. Nevertheless a few men in the survey were doing non-traditional work, and it seemed worthwhile to develop an index of occupational change in order to see what implication this has for mental health. Some men earned regular wages at jobs such as night watchman,

Table II

Religion, Age, Enlightenment with Associated Mental Health Ridits

Unenlightened Village Men
n=91

	Animist n=14			Moslem n=56			Christian n=21			Total n=19		
	n	%	$\bar{r}$	n	%	$\bar{r}$	n	%	$\bar{r}$	n	%	$\bar{r}$
Under 39	1	7%	.11	18	32%	.52	11	52%	.44	30	33%	.48
40-59	4	29%	.71	24	43%	.45	4	19%	.51	32	35%	.49
60 and over	9	64%	.42	14	25%	.50	6	29%	.34	29	32%	.44

Enlightened Village Men
n=47

	Animist n=1			Moslem n=11			Christian n=35			Total n=47		
	n	%	$\bar{r}$	n	%	$\bar{r}$	n	%	$\bar{r}$	n	%	$\bar{r}$
Under 39	1	100%	.11	4	36%	.52	9	26%	.68	14	30%	.59
40-59	-	--	-	5	46%	.45	19	54%	.49	24	51%	.48
60 and over	-	--	-	2	18%	.54	7	20%	.74	9	19%	.70

Village Totals

	n	%	$\bar{r}$
Under 39	44	32%	.51
40-59	56	41%	.49
60 and over	38	27%	.50
Total	138	100%	.50

gardener, road worker, gravel sorter or loader, etc. Some did jobs which required Western mechanical equipment such as being a tailor, watch repairer, carpenter, and lorry driver. Seventeen per cent of the sample held jobs such as these, and their mental health ratings are presented in Table III along with those of traditional workers who were primarily farmers and in a few instances native healers. The men doing wage and Western tool work have better mental health than the farmers ($.05 > p. > .02$) and this is especially true among the unenlightened. Even though we would not expect technological changes to be as psychologically threatening as those involving ideology and world view, this evidence goes contrary to the acculturative stress hypothesis. It is obvious, however, that the kind of modern work done by Yoruba men has little in common with technological change as we usually mean it in reference to a complex industrial revolution. Although a man needs to acquire a reliable time sense in order to be a wage-earner, the actual skills of gardening, gravel-loading, or even carpentry and lorry-driving are not such as to make serious demands on his learning abilities. At the same time there are immediate rewards in terms of a consistent economic resource or the enhancement of one's earning power. It appears, therefore, that what we have indexed here is a benign and predominantly technological form of acculturation which leads directly to economic security. What are the social

Table III

Work and Enlightenment with

Associated Mental Health Ridits

	Unenlightened Village Men			Enlightened Village Men			Village Totals		
	n	%	r	n	%	r	n	%	r
Traditional Workers	80	88%	.49	35	75%	.58	115	83%	.52
Wage workers and Western tool users	11	12%	.32	12	25%	.47	23	17%	.40
Total	91	100%	.47	47	100%	.56	138	100%	.50

characteristics of these men who seem to have found a comfortable foothold into the modern world. One might expect them to be the young men, but this is not so since they are scattered through all the age categories. Nor can they be classified as belonging mainly to one religious group. The only noteworthy relationship to appear through further analysis of these data is that it was more characteristic (54%) of the few enlightened Moslems to have found this kind of economic outlet for their talents than for the enlightened Christians (17%). It is not unreasonable to think that the village Moslems who acquired learning even though it was not readily available to them had the goal of economic progress in mind, while the Christians who needed to display less individual initiative in order to have the opportunity for learning may have had more difficulty in achieving an appropriate means-ends attitude.

The chief value of the analysis of occupation, however, is not so much what it tells us about the wage and tool workers but what it indicates about the men who maintain tradition work. The 29 enlightened Christian men who are farmers have worse mental health (.61) than the 6 who have modern jobs (.47), and progressively we are approaching a node of maximal stress which might be called asymetrical acculturation. The individuals who qualify as experiencing it are the men who have become enlightened, have undertaken the intense and

radical change of conversion to Christianity and are at the same time trapped in a traditional economic role. This suggests that acculturation does a special disservice to the emotional stability and coping powers of individuals when it lights the mind but gives the hands no concomitant economic tasks, when education is not coordinated with appropriately skill-graded occupational innovation.

Sixty-five per cent of the survey men living in the city of Abeokuta were, by our definition, enlightened. Although the sample of men is small, it is of interest to see the affect of cultural change in an urban setting. Table IV gives a resume of the Abeokuta findings for some of the major variables. Residence in a city has often been employed as a measure of modernization, but urbanization is not a new pattern with the Yorubas and although there are evidences in Abeokuta of a greater degree of Westernization, the Abeokuta men have the same mean ridit as the village men indicating that for this study group the fact of living in the city is not related to differences in mental health. The Abeokuta sample exhibited a sufficiently marked range of education to make it feasible to divide the enlightened group into what will be labeled here as minimally enlightened and moderately enlightened. The minimally enlightened are those who are only literate in the Yoruba language whether they have been to school or not. The moderately enlightened are literate in Yoruba and English;

Table IV

Yoruba Men in Abeokuta with Associated Mental Health Ridits

RELIGION

	Unenlightened			Minimally Enlightened			Moderately Enlightened			Abeokuta Totals		
	n	%	r	n	%	r	n	%	r	n	%	r
Animist	1	9%	.11	-	-	-	-	-	-	1	3%	.11
Moslem	10	91%	.51	6	75%	.64	5	38%	.43	21	66%	.53
Christian	-	-	-	2	25%	.50	8	62%	.42	10	31%	.43
	11	100%	.48	8	100%	.60	13	100%	.42	32	100%	.49

OCCUPATION

Traditional Workers	3	27%	.40	6	75%	.51	2	15%	.26	11	34%	.45
Modern Workers	8	73%	.48	2	25%	.88	11	85%	.46	21	66%	.51
	11	100%	.48	8	100%	.60	13	100%	.42	32	100%	.49

all have attended school; and a few have gone as far as to achieve part of a secondary education. One or two of these men were interviewed in English. No firm conclusions can be drawn from these data, but it is heuristic to find that in this context the unenlightened have about average mental health ($\bar{r}$.48) while the minimally enlightened have poor mental health ($\bar{r}$.60) and the moderately enlightened have better than average mental health ($\bar{r}$.42). In the city where modern work is more complicated and competitive, we find that slightly worse mental health ($\bar{r}$.51) is associated with the classification of people who hold such jobs than is the case ($\bar{r}$.45) with the group of people doing traditional work. This effect upon the psychiatric ridit is especially noticeable where the minimally enlightened are concerned (most of whom are Moslems). The group of moderately educated men who hold modern positions such as railway clerk, secretary, primary school teacher, and contractor have better than average mental health (.46). This finding suggests that the phase of cultural change characterized by an appropriate fit between level of education and economic opportunity need not be pathogenetic. In view of the history of Abeokuta as one of the earliest sites for Christian missionary activity, it is probable (though our data do not allow us to know for sure) that the Christians as well as the Moslems were born into their respective faiths, which means that they did not undergo the

double assault of conversion and enlightenment within one life time.

Conclusion

A psychiatric study carried out among Yorubas of the Western Region of Nigeria gave opportunity to explore some of the dimensions of acculturative stress. In conclusion a number of points can be highlighted as areas in which further research might profitably take root. They will be stated as propositions:

1) It is useful to map out differential interlocking with acculturative forces according to such basic features of the human condition as age and sex. This is fruitful to do because it aids in isolating the social groups who maximally experience stress.

2) Internalized ideological acculturation is more likely to have an adverse affect upon personality stability than changes in motor habits and economic skills. From this study it appeared that coterminous conversion to Christianity and the creation of "a little bit of enlightenment" were deleterious to the psychiatric status of individuals. It seems likely that the gradual pacing of these changes would minimize the damage done to psychic equilibrium. In planning programs of change, it would seem humane to set a limited series of goals for the first generation experiencing acculturation, recognizing that their children will be born into a

world already influenced by these changes and will be less traumatized by them and better able to take the next steps of change.

3) Asymetrical acculturation is especially hazardous to mental health. In instituting educational programs, for example, it is useful to keep in mind the question "education for what?" Inappropriate education may unfit people to live in their own environment. In this survey it appeared that an academic emphasis on the three R's was not adequately geared to the psychological needs and horizons of Yoruba farmers.

4) Not only does acculturation, especially as evidenced in educational programs, need to be appropriate to the economic opportunities available, recognition should be given to the idea that a half-educated person fills a particularly stressful role. "A little bit of enlightenment" may shake an individual out of the old world but it does not equip him to live in the new.

Footnotes

1/ From the Department of Psychiatry of the New York Hospital (Payne Whitney Psychiatric Clinic) and the Cornell University Medical College, as well as the Department of Anthropology and the Department of Sociology of the College of Arts and Sciences, Cornell University. The work has been conducted as part of the Cornell Program in Social Psychiatry and has been supported through funds provided by the Ford Foundation, Contract AID/csd 296 with the Office of Technical Cooperation and Research of the Agency for International Development, the National Institute of Mental Health, and the Milbank Memorial Fund. The foundations are not, of course, the authors, owners, publishers or proprietors of this report and are not to be understood as approving by virtue of their grants, any of the statements made or views expressed therein. For consultation and assistance in the preparation of this report, grateful acknowledgement is made to Melvin Schwartz, David B. Macklin and Veronica A. Shaw.

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3/ This project was directed by Alexander H. Leighton, M.D., Professor of Psychiatry (Social Psychiatry), Cornell University

Medical College, and T. Adeoye Lambo, M.D., D.PμMμ, Professor of Psychiatry, University of Ibadan, Nigeria. The research was a collaborative endeavor carried out by a group of psychiatrists and social scientists from Cornell University and a group of psychiatrists, statistical assistants, nurses, and interpreters from Aro Hospital.

4/ The concepts of social integration and disintegration in a community context and their relationship to psychiatric disorder are discussed in the reports of the Stirling County Study: My Name Is Legion, by Alexander H. Leighton, Volume I: The Stirling County Study of Psychiatric Disorder and Sociocultural Environment, New York: Basic Books, 1959--especially Chapter VI, "Social Disintegration as a Basis for Comparing Communities;" People of Cove and Woodlot, by Charles C. Hughes, Marc Adelard Tremblay, Robert N. Rapoport and Alexander H. Leighton, Volume II. The Stirling County Study, New York: Basic Books, 1960--especially Chapter VII, "Sociocultural Process and Psychiatric Disorder;" and The Character of Danger, by Dorothea C. Leighton, John S.Harding, David B. Macklin, Allister M. Macmillan and Alexander H. Leighton, Volume III: The Stirling County Study, New York: Basic Books, 1963--especially Chapter XII, "Sociocultural Integration and Disintegration."

5/ Prior to the field period of 1961, Professor Lambo's staff, many of whom were themselves members of the Yoruba

tribe, had carried out preliminary health and social surveys in 25 villages near Aro Hospital. These villages were thought to be typical of the range and variety of villages known to our Yoruba colleagues. Upon arrival in Nigeria, the social scientists of our group made a tour of these villages and examined the existing records about them. A selection of 15 villages was made for more thorough investigation. These constituted a range of integrated, intermediate, and disintegrated villages. Since integration and disintegration are thought of as the extreme ends of a natural continuum, we designed the sampling so that the intermediate category had the greatest number of examples in it. In addition, attention was paid to making the choice of villages representative of the fact that some villages in the area appeared to be changing through establishment of local schools, churches, or minor industries while other villages lacked these resources.

6/ Following the selection of the 15 villages, a map of the houses in each village was made. A sampling rate for each village was determined by its size (they varied from populations of about 40 to about 2,000) and the estimated number of interviews which could be conducted in the time allotted for each village. Thus a pre-determined number of houses were drawn randomly from the mapping; and from each house an adult man and an adult woman were chosen also by random methods. By this means, the 138 men and 124 women

were selected from the villages. For the city of Abeokuta, which numbers 80,000, we first outlined a characteristic microcosm of about one-sixth the geographic size of the city as a whole. This was done by interviewing our colleagues who lived in Abeokuta. From this area we drew randomly eight non-contiguous sections defined by the coordinates of a map of the city. The subsequent sampling paralleled that of the villages, and we thus had a sample of 32 men and 32 women residing in the city.

7/ The 262 villagers were used as the reference population in establishing the numerical value of the ABCD ridit for the findings reported in Psychiatric Disorder Among the Yoruba. For this report, which primarily concerns males, ABCD ridit values were calculated from the reference population of 170 village and Abeokuta men. This accounts for slight variations between previously reported figures and those given here, but it allows greater sensitivity to variations which apply specifically to men.

8/ The few enlightened women in the villages have a mean ridit of .49 compared to .46 as the mean ridit for the large number of unenlightened women. The mean ridit for the Christian women is .47 which is exactly the same as that for the Moslem women. This evidence substantiates the viewpoint that these indicators of cultural change have almost no meaning for the mental health of women. For the Yoruba women in this

study, we may conclude that other factors such as the integration or disintegration of the villages in which they live and states of fertility and infertility are much more significant in correlating with mental health measures than acculturation.

9/ It might be put forth as an idea that another measure of the internalization of Christianity would be the fulfillment of the prescribed marriage pattern. It has, however, been remarked by numerous observers that polygyny is clung to as an African pattern despite fundamental changes in other areas. In this sample one-third of the married Christians were polygynous while only one-quarter of the married Moslems had more than one wife. Further, the practice of polygyny was more common (34%) among the enlightened Christians than among(14%) the unenlightened. Polygyny and monogamy are not only religiously-colored variables. The acquisition of wives is a mark of prosperous economic standing in the indigenous culture, a feature of ideology and practice which lingers in the changing culture. I suspected that the unresolved issue of the polygyny among Christians might relate to mental health, but as a matter of fact it had no effect among the unenlightened Christians in this survey and only a barely perceptible effect among the enlightened where the polygynous Christians have a mean ridit of .58 and the monogamous Christians .60. Yet for the sample as a whole a some-

what higher ridit (.52) is associated with being polygynous than that (.48) of being monogamous. This is due to the fact that polygynous Moslems have worse mental health than monogamous Moslems, a somewhat surprising finding since polygyny is the preferential marriage pattern in Islam. It is possible, however, that in the changing Nigerian society where education is the bootstrap for raising the standard of living, polygyny, especially among the unenlightened villagers, constitutes a serious economic burden that finds outlet in higher rates of psychiatric symptoms.