

THE OCCURRENCE OF A NERVOUS MANNERISM IN TWO CULTURES¹

LEE SECHREST AND LUIS FLORES JR.

NERVOUS MANNERISMS CONSTITUTE A CLASS OF MOTOR BEHAVIORS which betray a relatively high level of tension or anxiety, which are apparently meaningless and useless, and which are at any moment controllable by the person displaying them. There are a variety of other "abnormal" motor responses from which they might be distinguished, such as tics and hysterical limitations. Certainly, one of the bases for the distinction is on the momentary controllability. The tic is involuntary, and the victim of the tic cannot control its occurrence. On the other hand, such a mannerism as nailbiting, while difficult to control over a period of time is certainly controllable at any one moment. The nail biter can keep from biting his nails as long as he is thinking about it. It is only when his attention lapses that he finds the unwanted behavior occurring once more.

Very little systematic research has been done on nervous mannerisms, although observations of such mannerisms have been used in order to index levels of tension in a group (Anderson, Brewer and Reed, 1946). Anderson and his associates were interested in the level of tension in school children induced by authoritarian and democratic teaching methods, and they counted various kinds of mannerisms among children exposed to the two teaching techniques and found differences, not always in favor of the less authoritarian methods.

Expressive movements has long been a topic of interest in psychology (Wolff and Precker, 1951), and Kroot (1931, 1935a, 1935b, 1937, 1954a, 1954b) has made rather extensive studies of certain kinds of gestures that might be indicative of fear or tension. How such movements get into behavior repertory of the individual is unknown although many of the general principles of response acquisition would seem to apply. Some of the movements are probably acquired because of the accidental contingencies between the responses involved and tension reduction, much in the same manner as Skinner (1953) describes the development of "superstitious" responses. Other mannerisms and movements may have some slight tension reducing effect (not all mannerisms may be completely useless) by, for example prov-

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iding for discharge of muscular tension that is part of a general state of tension. And still other mannerisms may be acquired by a process of social learning and imitation, a possibility which provides for differential frequencies in various cultures.

It is the purpose of this paper to report on a mannerism which seems to be a result of tension and which has quite a different frequency of occurrence in American and Filipino cultures. During a proionged visit to the Philippines, the first author noted himself, and had called to his attention by others, the apparently remarkable frequency of Filipino males of a mannerism which we shall call "leg jiggling". The mannerism consists of up and down rhythmic movements, ordinarily rather rapid, of one or both legs. The movements range from rather fine and extremely fast movements that resemble tremors to much slower but broader excursions of the legs. The data which are reported below arose out of an attempt to discover whether the mannerism might be indicative of tension. It might be noted that the initial casual observations were made in a group of college age males who were idling away their time in a small canteen. Th leg jiggling syndrome was noted specially when they were playing chess, as opposed, for example, to merely chatting or singing.

METHOD

Definition of Leg Jiggling

As stated above, leg jiggling was defined as a vertical, rhythmic movement of one or both legs while the subject was in a seated position, it was necessary to make allowance for opportunity for leg jiggling since persons seated with legs crossed in any manner could not easily engage in the behavior. Therefore, the observations reported below are in terms of proportions of those individuals who could engage in the behavior, i.e., whose legs were free and not intertwined. Unfortunately, no data are available on the proportions of persons seated in such a way as to preclude leg jiggling behavior. It has been suggested to the writers that at least some kinds of leg-crossed positions are probably indicative of a relatively low level of tension, but that is a matter of further study.

The duration of the response was not an issue in this investigation. The standard method of observation was to make what were called "visual sweeps". That technique involved a brief observation of the total sample available at a moment in time. For example, an observer seated in a restaurant would make a relatively slow but systematic visual inspection of the room and simply note the number of males who could be engaging in leg jiggling and the number who were actually engaging in the behavior as defined above. The data were recorded in terms of absolute numbers. A period of observation in a given location would include several visual sweeps, typically three, in about a five-minute period. The score for that location

would be the total number of leg jiggers and nonjiggers during the period of observation. An attempt was made to standardize conditions and methods of observation in both cultures although it cannot be claimed that complete standardization was achieved. The first author made observations in both cultures.

Observational Sites

An attempt was made in the Philippines to make observations in a fairly representative but not random selection of sites in which males might be observed in seated positions over at least a brief period of time. Without a taxonomy of situations it would have proven difficult to specify the locations in which observations ought to be made to achieve true representativeness, but the emphasis was upon situations in which males would be at leisure. Thus except for some observations to be reported on classroom situations, none of the observations were made at work. Observations in the United States were made in situations which were thought to be a rough match for Philippine locations with the exception that no observations were made in taverns or bars in the U.S.² Table I gives a summary of the

TABLE I
LOCATION OF PLACES IN WHICH OBSERVATIONS
WERE MADE IN EACH CULTURE.

<i>Location</i>	<i>Number of separate places</i>	
	<i>Philippines</i>	<i>United States</i>
First class restaurants	5	2
Second class restaurants	36	9
Third class restaurants	30	5
College campus	8	3
Work (mostly coffee lounges)	8	3
Cocktail Lounges	12	—
Coffee shops	5	8
Total	104	30

locations for the observations in both countries. It will be noted that the distributions are approximately the same although considerably fewer observations were made in the United States. Observations were made only on one occasion in most locations, but two or even three observations were made in some places. For those places the percentages of leg jiggers were averaged across occasions for subsequent analyses.

²It is very difficult to find drinking places that are well lighted, equipped with chairs, furnished with short tablecloths, etc., so that observations of leg movements are possible.

It cannot be argued that observations within one location are independent; therefore, the appropriate sampling unit is the location rather than the person. All data were converted into and analysed in terms of proportions of leg jiggers within a sampling unit.

RESULTS

The first analyses are for frequency of leg jiggling in the Philippines and in the U.S. The data are given first for all Philippine locations except bars and for all U.S. locations. Table 2 gives the data for chi-square analysis for the two cultures. It is evident that frequency of the mannerism is greater in the Philippines than in the U.S. We should note that speaking strictly within the limits imposed by the data we can only say that there are some places with a high frequency of leg jiggling in the Philippines than in the U.S. However, we would also note that the absolute frequency in the U.S. is very low, so low that we do not question the former, and less restricted, conclusion.

TABLE 2
PROPORTION OF LEG JIGGLERS IN DIFFERENT LOCATIONS
FOR EACH CULTURE

		<i>Philippines</i>	<i>United States</i>	<i>Total</i>
Proportion of leg jiggers	> .20	74	4	78
	< .20	30	26	56
Total		104	30	134
$X^2 = 29.67, \quad df. = 1, \quad p < .001$				

Additional data are available for a very much more restricted sample of persons in the two countries since it was possible to make observations of college classes in both. Initially, we would note that observations in college snacks bars and lounges in the Philippines and the U.S. showed the greater prevalence of leg jiggling in the former country, the relevant data being included in the analysis above. However, additional observations were made of males in three college classes in each country. In the Philippines two observations were made during final examination sessions and a third was made during a "theme writing" session in an English class. Observations in the U.S. were made during three examinations, one midterm and two final examinations, three different classes being observed. The observations in the Philippine classes involved 10 to 14 visual sweeps during the class period, and the U.S. observations all were 12 sweeps in extent. Table 3 presents the results. Analysis of such data must be limited since the number of sampling units is so small, but it will be noted that all three

TABLE 3
 LEG JIGGLING FREQUENCY AMONG MALE
 UNIVERSITY STUDENTS DURING EXAMINATIONS.

		Frequency	
Philippines		United States	
	<i>No</i>		<i>No</i>
<i>Leg jigglng</i>	<i>Leg jigglng</i>	<i>Leg jigglng</i>	<i>Leg jigglng</i>
8	16	2	21
4	5	0	9
7	6	1	11

Philippine observations are higher by a good bit than all three U.S. observations.

A question of obvious interest is whether leg jigglng is a stable and reliable measure for individuals. We regret to say that we do not have good, definitive data on this point. However, we were able to make repeated observations of the same group of 10 Filipino male students as they sat in a Spanish class. Observations were available for a total of 9 days on which all subjects were present, and the days were spread over a period of about 4 weeks. The periods of observation consisted of four periods of from 45 to 60 seconds during a class session. The data were in the form of the number of times each subject was observed leg jigglng during each class period. The range of possible scores for any given day was from 0 to 4. An analysis of variance³ showed clearly that there is significant variation among individuals in tendencies to engage in leg jigglng, the reliability coefficient being .90 (Winer, 1962).

We are left with the question whether leg jigglng is an index of tension or not, and at present we do not have conclusive data. That will have to await laboratory studies in which results of induced tension can be studied. However, we would like to present two findings which we believe cast some light on the nature of leg jigglng as a response. First, our observations in Philippine locations were coded according to the composition of the group with which the subject was seated. We would note first that the proportion of persons seated alone who were engaging in leg jigglng far exceeded the proportion for persons seated in the company of others. There is some possible problem with the sampling unit for such data, but the difference is of such magnitude that we are persuaded of its dependability. The analysis was made only for those locations in which there were both persons alone and persons in company. In 53 of 84 locations a higher proportion of the lone subjects than of accompanied subjects were engaging

³ The analysis of variance was performed on an arcsine transformation of the data because of the very small range of scores which were possible.

in leg jiggling ($\chi^2 = 5.76$, $p < .01$). We believe that unaccompanied persons are more likely to be under tension than persons in company. For example, persons alone are more likely to be taking time off from important errands, are more likely to be anxious in their interpersonal relationships, are more likely to be going through troubled and nonconvivial periods, etc.

A second type of observation arose out of our attempts to make observations in situations likely to be differentially conducive to tension and relaxation. We noted that there is in Manila an area of town frequented by government employees, medium level business executives, newspaper reporters, young attorneys and the like and that many such persons took coffee in various places in that area during the morning hours. We also noted that the same area is rather well endowed with cocktail lounges which *seemed* to be populated by about the same kinds of persons, but at the end of the working day instead of in the middle. It seemed reasonable to suppose that the dual effects of caffeine stimulation and workday pressures would produce a relatively high level of tension in the coffee shops during the early part of the day, and the dual effects of alcohol and end of day relaxation should produce a relatively low level of tension in bars late in the day. Therefore, we made observations in both places. We recognize the possible objections that (1) the population might not be the same, and (2) the seating arrangements might be differentially conducive to leg jiggling. Neither objection is easily met. We would only propose that the people in the two situations looked about the same, and that seating facilities were not markedly different. The cocktail lounges in which observations were made were not furnished with low, deep, soft-cushioned benches. The data were once more analyzed in terms of sampling units consisting of specific locations and a chi-square was calculated with the results shown in Table 4. Quite apparently leg jiggling is less frequent in cocktail lounges than in places where people take their coffee breaks. This, we believe, will stand until better evidence is available, as supportive of our contention that leg jiggling is a nervous mannerism that reflects level of tension.

TABLE 4
FREQUENCY OF LEG JIGGLING
IN COFFEE SHOPS AND COCKTAIL LOUNGES
IN AN AREA OF MANILA

Proportion of leg jigglers	Cocktail lounges	Coffee shops	
More than .30	2	9	11
Less than .29	10	3	13
	12	12	

$$\chi^2 = 6.04, \quad \text{df.} = 1, \quad p < .02$$

DISCUSSION

We believe that our findings point to an interesting difference between the Philippines and the United States in frequency of a specific nervous mannerism. It may be objected that our observations were not sufficiently well controlled and that various biases, e.g., in location, times, conditions, etc., might account for the differences. At the present time we cannot make a completely adequate reply to that objection. The area of inquiry is sufficiently fresh so that it is very difficult to specify appropriate and necessary dimensions of control for observations. We believe that at our current level of knowledge and viewing our work as exploratory, the observations which were made were satisfactory. We would note that the differences which were seen within the Philippine sample, i.e., between persons in company and persons seated alone, are not easily explainable on the basis of any biases in observation. Perhaps subsequent observations under more carefully controlled laboratory conditions may cast light on the problem in which we are interested.

One anecdotal report substantiating the frequency of the mannerism in the Philippines comes from a *Filipina* friend of the writers who reports that her three brothers were specifically forbidden by their mother to "leg jiggle" at home. Such a prohibition betrays the ubiquity of the problem. Still another very interesting comment came from a Venezuelan female friend who, when she heard by accident about the data reported in this paper, stated that the same behavior is very common among Venezuelan males. Systematic reports from various cultures would be most interesting.

Some readers might note that we did not study the behavior in question among females. The reason is that it appear to be all but absent in females. In all the observations made in the Philippines, only six or seven females were noted to be engaging in the behavior, and only two were noticed in the U.S. Our Venezuelan friend also told us that women in her country do not engage in the behavior.

We believe that leg jiggling differs in quality as well as in quantity in the two cultures, for it certainly appeared to the first author that Filipino males are "better" at leg jiggling than their American counterparts. Their movements seem more rhythmic and smooth, and they continue over longer periods of time. The writer has never seen American males engage in continuous leg jiggling for over a minute or so. Some Filipino males were noted to be active for periods of as long as five minutes without pause.

It is also our tentative contention that leg jiggling does represent a symptom of tension. We doubt, in fact, that few persons would question such a conclusion and we offer the evidence obtained only in the spirit of methodological enthusiasm. There are many possible deficiencies in the observations leading to the conclusion that leg jiggling is less frequent in cocktail lounges than in coffee shops; so many, in fact, that we are gratified

to have obtained differences at all. We maintain that *au a priori* consideration of the problems would not necessarily have led to the conclusion that the mannerism would be more frequent in coffee shops. We can only suggest that the data are in accord with our supposition and leave to future investigations the support or repudiation of our position. It is somewhat more tortuous to reason from the observation of a greater frequency of leg jiggling alone to the conclusion that the behavior is symptomatic of tension, and we would only state our conclusion tentatively on that basis alone.

We would like to make it clear that we are not suggesting that tension or anxiety is higher in the Philippines than in the United States. In fact, if we had to make a guess, we might well guess otherwise. We concentrated our observations on only one member of what seems to us to be a broad class of behavior which can be viewed as nervous mannerisms and, hence, indicative of tension. We did not, for example, note at all the frequency of "fidgeting" in the chair, of drumming with the fingers on the tabletop, of pulling at the ear, of toying with objects such as pencils, water, glasses and matchboxes. The cultures might be characterized by the same or different frequencies of any other mannerism. We hope to do additional work to cast light on the overall frequency of nervous mechanisms, but first much work must be done in order to discover just what mannerisms exist in each culture.

An interesting question for the student of culture is how a mannerism such as leg jiggling gets transmitted within a culture and why it should not be equally widespread within all cultures. We can begin with the assertion that leg jiggling seems to serve no apparent purpose. Nothing evident is accomplished by it. We have asked leg jigglers why they were engaging in that behavior, and many persons asked denied being aware that they did it. Others said simply that they were "bored", "wanted action," or were "waiting." It seems unlikely that the mannerism is a source of interpersonal gratification, e.g., that it might be admired or reinforced in social interaction. Therefore, we must conclude that the mannerism is not transmitted by direct tuition.

One good possibility is that the mannerism is acquired through imitative processes, probably at an early age and at a relatively low level of awareness. Probably the male child is often subjected to situations conducive to tension, to tension shared by those around him. Without necessarily being aware of it, the child is exposed to models greatly important to him; and what they are doing the child will do. He will emulate irrelevant as well as relevant acts. If he resides in a culture in which any given act is frequent, he has a high probability of being exposed to that act under conditions suitable for acquiring it. The processes involved in such learning are well spelled out by Bandura and Walters (1963). The findings of Olson (1929) concerning intrafamilial correlations in certain forms of oral mannerisms and of correlations between children seated adjacently are suggestive of at least the partial

correctness of the imitative learning hypothesis. We realize that we are begging the question how a mannerism gets to be more frequent in a culture in the first place, and we would continue to beg it except to say that there are many aspects of a culture which operate to determine what acts or gestures are possible and appropriate in any situation. We do not yet understand all these factors.

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