SUSTO: THE CONTEXT OF COMMUNITY MORBIDITY PATTERNS

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Susto. the widespread Latin American folk illness, normally translated as fright or shock, holds a special place in medical anthropology. For the past 25 years or more it has provided a convenient springboard tor ethnographic descriptions, for explorations ot the effect of culture on health beliefs, and it has been a common analytical arena for the assessment of stress, social roles, sex roles, the nature-nuture controversy, and the epistemology of medical anthropology itself. While this is a significant burden to load onto a single ailment, *susto* has withstood this analytical onslaught extremely well and still provides a useful focus for further investigation.

The earlier works on *susto* fail into three broad categories. First are rhose which provide a conventional ethnographic description of the illness (e.g., Rubel 1960, 1966; Madsen 19(54; Nail and Speilberg 1967; Trotter and Chavira 1980, 1981). Beyond description, other authors have postulated the causes of *susto* from sociocultural perspectives (Gillen 1945; Rubel 1964; O'Neil and Seiby 1968; Uzzeil 19-4; O'Neil 1975; O'Neil and Rubel 19-6, 1980; Rubel and'O'Neil 19-9, and Logan 19^9), psychological and/or psychiatric perspectives (Gillen 1948; Sal y Rosas 1958; Kiev 1968; Goebel 19^5; Grebe and Segura 1974), and biological (Bolton 1980, 1981) perspectives. These two groups together attempt to answer the questions, "what is JV/J/Y;?," "what is its cause, and its effect.'" Collectively, these works constitute our current understanding ot the etiology ot the illness. An even more recent article (Crandon 1981) is the sole representative ot the third category; articles exploring the epistemology ot *susto.* While her paper takes into account previous publications, it primarily focuses on the significantly different question: "why *susto'?"* Why is *susto* chosen as a diagnosis from the total array of ailment labels available to members of a culture, especially when many have similar or identical symptoms? Crandon further asks, "what is the socio-cultural meaning ot this choice?" Her answer is that the diagnosis, *"susto."* symbolizes the negotiation of and is a symbolic reflection ot socio-cultural identity, economic status, and the perception of self-worth in the community she studied.

Even given this broad treatment of the subject, three dimensions of *susto* appear to have been either partially or totally neglected in the previous studies. These dimensions both shed light on the controversies being addressed by the above authors, and provide an expanded framework within which those controversies can be better understood. First, a description ot the incidence and prevalance of *susto* as a part of the overall morbidity patterns of Latin American communities is missing. The closest anyone has come to such a quantitative treatment of the subject is in the work of Rubel and O'Neil (1979) in their analysis of the importance of *susto* within clinic populations. However, by the very nature of a clinic population, their data cannot be generalized to the wider

community. Second, there are no descriptions of the range or the frequency of use of specific treatments for *susto;* again within a community based context Finally, no attempt has been made to empirically demonstrate whether *susto* is an isolated illness or is a part of a larger cluster of illnesses that are linked within a given ethnomedical system. Commonly, previous studies have simply lumped *susto* together with the other "culture bound syndromes" found in Latin American communities; ailments such as *empacho* (blocked intestines), *mat de ojo* (evil eye) or *caida de moellera* (fallen fontenelle). This lumping appears to be accomplished under the weak logic that these illness must have something in common since none of them fit scientific medical categories and all of them involve a belief in supernatural forces. The data presented in this paper provide evidence that there is a more logical and empirically sound method for clustering ailments within an ethnomedical treatment system.

RESEARCH AREA AND METHODOLOGY

The data for this article were collected in the Lower Rio Grande Valley of Texas. The Valley, as it is called by its residents, is the area bordering the Rio Grande river from Brownsville, at its mouth, upriver to Rio Grande City. Four Texas counties are included in the area; Starr, Hidalgo, Willacy, and Cameron. The approximately half-million people living in the area have an ethnic composition that is about 8c per cent Mexican American, 20 per cent Anglo American, and less than .5 per cent Black, Native American, or Asian. The two Mexican border towns of Matamoros and Reynosa, (Tamaulipas) are directly adjacent to the Valley and are very important to the overall cultural dynamics of the region.

The region, the people, and the major enthnomedical system of the area, *curanderismo,* have been recently described in detail (Trotter and Chavira 1980, 1981). When these works are coupled with earlier descriptions or ethnographies (e.g., Bourke 1894, Rubel 1960, 1964, 1966; Madsen 1964; Romano 1960, 1964, 1965), the lower Rio Grande Valley is shown to have a greater historical depth for the academic treatment of Latin American folk medicine, and especially for *susto.* than nearly any other area in the world. Thus, it seems unnecessary to reiterate here the information combined in those earlier works, and their bibliographies.

The study of *susto* reported in this paper grew out of a broader study of the home treatment of illnesses in the region. The author has established a computer based data bank of *remedios caseros* (home remedies) collected in the Valley. This data bank contains coded cases of the uses of home remedies sampled from the broad four-county region. Each case consists of a single home remedy, the illness it treats, its method of preparation, a case example of its use, and general demographic information about the informant (e.g., age, sex, ethnicity, occupation, country of birth, residence, languages spoken, etc.). Currently, over 4,000 cases have been collected. These cases come from members of the various ethnic groups found in the Valley as well as from a number of foreign nationals. For the purposes of this study, a sample of 1,223 cases was drawn from the total computerized archive. This sample contains all of the cases presented by informants who identified themselves as Mexican Americans. The sample includes information from 378 informants ranging in age from 16 to 82, but clustering most heavily in the 30 to 55 age rang-. While all sample informants were identified as Mexican Americans, 41.4 per cent of the cases were provided by informants born in Mexico; 58.6 per cent by informants born in the United States; 85.4 per cent of the cases were presented by female informants and 14.6 per cent by male informants.

The sample should be considered a convenience sample since it has thus far been economically impossible to minutely stratify the sample collection on the basis of small geographical units in the Valley. Nevertheless, a general inspection of the data indicates that the social and geographical characteristics of the informants match the overall conditions of the Valley. Furthermore, the data are consistent with both the ethnographic data previously collected in the Valley and with the incidence and prevalence of illnesses collected locally from more conventional sources of information (e.g., Public Health surveys).

Five hundred and ten separate botanical and nonbotanical remedies (including single ingredients and/or combinations of ingredients) were discovered in the sample. The ethnographic evidence indicates that the remedies, and the ailments they treat, should not be randomly distributed in the sample. A computer aided analysis (Trotter 1981a) confirmed that there is a core group of 56 *remedios* (approximately 11 per cent of the total number of remedies) that account for over 52 per cent of the cases in the sample. It was further demonstrated that a core group of 60 ailments, out of a total of 198, accounts for more than 81 per cent of the cases in the sample. A subsequent analysis of the data, using the demographic variables collected for each case, demonstrated that it was possible to generate a profile of community based morbidity patterns of home treated illness (Trotter 1981b), and that these could be broken out into age and sex specific categories comparable to conventional morbidity studies. The following section presents a summary of the data from the sample of cases which is pertinent to *susto* and to a presentation of the three neglected dimensions *of susto* mentioned above.

THE PROMINENCE OF SUSTO AS A HEALTH PROBLEM

Since the informants in the sample were allowed to present whatever ailments and remedies that occurred to them without forced choices, each of the ailments can be considered a part of the overall morbidity problems treated in the home. Morbidity is defined as:

> basically a departure from a state of physical or mental well being, resulting from disease or injury, of which the individual is aware. Awareness connotes a degree of measurable impact on the individual or his family in terms of the restrictions and disabilities caused by the morbidity, (National Center for Health Statistics 1964).

If it is assumed that the remedies most frequently recalled and presented by the informants in the sample represent the treatment of either the most commonly encountered ailments or the most important ailments treated in the home, then the frequencies presented in Table 2 can be considered as a comparative measure of the prominence of a particular ailment within the home treatment system (see Trotter 1981b for detailed discussion of this premise). By the same logic, _both ailments and remedies which show up infrequently in the sample are of less importance to the community as a whole. These assumptions are supported by the condition that no new ailments were discovered in the sample beyond the time when approximately half of the cases had been coded. Thus, the total list of ailments appears to represent all or most of the illnesses treated in the home by Mexican Americans in the Valley, within the limits of any sampling error. New remedies continued to show up throughout the coding process, but only at the rate of one or two for each fifty cases coded, past the time that approximately two-thirds of the cases had been coded. Most of those discovered at that time were simply new combinations of previously coded herbs. The following table provides a comparison of the 30 most frequent ailments in the sample of cases.

Table i demonstrates one of the primary contentions of medical anthropology; that culture has a significant effect on the morbidity patterns of a community. There are three ailments in the list that have no English language equivalents. These are *nervios, susto,* and *empacho.* Two of the three have been prominent in the anthropological discussions of Latin American ethnomedicine, while the third, *»en<ios.* has been neglected. Although *nervios* can be generally translated as

anxiety or nervousness, there is current ethnographic and linguistic evidence from the Valley to support the idea that it, perhaps, should be considered as a culture bound syndrome separate from those other two conditions. Thus anthropologists have been correct in demanding that these ailments not be ignored, since they represent conditions that are a departure from a state of well being of which the individual afflicted is aware. At the same time, as stated elsewhere (Trotter 1981b) there has been a significant neglect of the physical aspects of health conditions in the anthropological treatment of Hispanic folk medicine in favor of descriptions and analyses of the culture bound syndromes. This article serves to redress that imbalance.

The data in table i, and the lengthier tables of relative frequencies of the ailments presented elsewhere (Trotter 1981 a,1981b) have a twofold usefulness. The first is to compare the prominence of *susto* to all of the other ailments treated in the home. The second is to compare the prominence of all of the culture bound syndromes to one another. Although there are numerous descriptions of these

The Thirty Most Common Ailments in the Sample of Cases[1]

	Ailment	Number of cases	Percentage of total cases	Cummulative percentage
1.	Stomach ache	76	6.2	6.2
2.	Cough	54	4.4	10.6
3.	Nervios	49	4.0	14.6
4.	Colic	44	3.6	18.2
5.	Fever	44	3.6	21.8
6.	Earache	37	3.0	24.8
7.	Indigestion	37	3.0	27.8
8.	Diarrnea	36	2.9	30.7
9.	Susto	35	2.9	33.5
10.	Constipation	29	2.4	35.9
11.	Eye irritation	27	2.2	38.1
12.	Arthritis/ Painful joints	26	2.1	40.2
13.	Sores/granos	24	2.0	42.2
14.	Insomnia	23	1.9	44.1
15.	Burns	20	1.6	45.7
16.	Kidney Infection	20	1.6	47.3
17.	Bladder Infection	19	1.6	49.9
18.	Diabetes	19	1.6	51.4
19.	Sore Throat	19	1.6	53.0
20.	Intestinal Parasites	18	1.5	54.5
21.	Colds	15	1.2	53.7
22.	Insect Bites	15	1.2	54.9
23.	Boils	14	1.1	56.0
24.	Heart problems	14	1.1	57.1
25.	Pre-menstrual Cramps	14	1.1	58.2
26.	Body Aches and Pains	13	1.1	59.3
27.	Bleeding	13	1.1	60.3
28.	Congestion	12	1.0	61.3
29.	Empacho	12	1.0	62.3
30.	Headaches	12	1.0	63.3

Total cases = 1223 Total Ailments = 198

illnesses in Latin American communities, no one has quantitatively compared their frequency distributions within a community. Table 2 presents the frequencies of cases for the folk ailments most commonly identified in the ethnomedical literature as they occur in the sample of cases presented in this article. *Nemos* is not included, pending further research on it as a culture bound syndrome.

Together these tables present an interesting perspective on *susto.* It represents nearly 3 per cent of all of the cases in the sample, making it the ninth most prominent morbidity problem in home treated ailments. It is two-and-one-half times as frequent in this sample as *mal de ojo, caida de mollera.* bad luck and ridding evil spirits combined. *Susto* is nearly three times as common as *empacbo,* the second most prominent of the house treated folk illnesses, yet *empacho* is far more common than the other ailments.[2] Taken together, the six ailments represent 3 per cent of the 198 ailments in the sample and 5 per cent of the 1,223 cases. Similar samples from the regions described by other ethnographers will have to be analyzed before a comparison can be made of the relative importance of *susto,* and other ailments, in these communities.

A COMMUNITY PERSPECTIVE ON THE TREATMENT OF SUSTO

As stated above, there are many solid ethnographic descriptions of the treatment of *susto* (Rubel 1960, 1964; Madsen 1964; Trotter and Chavira 1981) in the Lower Rio Grande Valley. Based on those data, the general impression is that *susto* is a magico-religious ailment in which a startling, frightening, or shocking experience causes some level (from weak to total) of disengagement of the soul from harmonious syncopy with the body. This loss of syncopy then produces the physical symptoms described by Rubel (1964) which include insomnia, fatigue, irritability (jumping at sudden noises), anxiety and nervousness, lack of interest in personal hygiene and appearance, weakness, paleness, and in some cases nausea, vomiting, diarrhea, and/or fever. The most common treatment for the ailment depicted in the ethnographic literature is a magico-

Frequencies of Folk Illnesses in Sample of Cases

	Ailment	Total Cases	Percent of All Sample Cases	Cumulative Percentage	Percent of 61 Folk Illnesses Cases
1.	susto	35	2.9	2.9	57.4
2.	empacho	12	1.0	3.9	19.7
3.	mal de ojo	5	0.4	4.3	8.2
4.	rid person of evil spirits	5	0.2	4.7	8.2
5.	eliminate	3	0.1	4.9	4.9
6.	caida de mollera	1	0.1	5.0	1.6
		61	5.0	5.0	100.0

Total cases = 1223 Total ailments = 198

religious ritual called a *barrida* (sweeping) which uses physical objects and incantations to supernaturally remove the harm being caused by *susto.* This treatment fits the harmonious logical structure of a supernatural disease (often called psychosomatic in the literature) being treated by supernatural (i.e., psychosomatic) means. Unfortunately, the data collected in the survey do not match this neat logical package, as can be seen in Table 3.

By far the most common treatment of *susto* in this sample (40 per cent of the total cases *of susto)* is the administration of a tea made from *Yerba aniz (Pimpinella anisum* L.; anise). A total of 61.7 per cent of the cases, excluding the one where the method of administration is unknown, were treated by teas, and an additional 5.9 per cent by ingesting either sugar or a mixture of vinegar, salt, and water. Only 32.4 per cent of the cases were treated by means of a *barrida,* and a mild case can be made that *albacar (Ocimum basilicum* L; (sweet basil) and *cenizo (Leucophyllum texanium* Beuth; purple sage) may have some biochemical effect as inhalents. These data, then, appear to support the statements of Gillen (1945, 1948), Bolton (1980), and Crandon (1981) that *susto* may have underlying physiological causes or correlations. On the other hand, these remedies may simply be effective in treating some of the symptoms of *susto,* rather than the ailment itself. A parallel case is found in the treatment of the common cold by scientific medicine, and this hypothesis is supported by the data in Table 4. Table

Table 3

Relative Frequencies of Susto Remedies[3]

and Their Method of Administration

	Remedy	No. of Cases	Percent of Susto cases	Cumulative Percent	Method of Administration
1.	manzanilla	2	5.7	5.7	tea
2.	yerba aniz	14	40.0	45.7	tea
3.	yerba buena	1	2.9	48.6	tea
4.	hoja de naranjo	1	2.9	51.4	tea
5.	albacar	4	11.4	62.8	1 tea, 3 barridas
6.	cenizo	1	2.9	65.7	barrida
7.	toronjil	1	2.9	68.5	tea
8.	altamisa	3	8.6	77.1	barrida
9.	epasote de zorrillo	1	2.9	80.0	barrida
10.	azucar	1	2.9	82.8	tsp. w/out water
11.	simonillo	1	2.9	85.6	unknown
12.	pirul	3	8.6	94.2	barrida
13.	jerbanillo	1	2.9	97.1	tea
14.	agua, vinagre, sal	1	2.9	100.0	mix and ingest
		35	100.0	100.0	

Table 4

All Ailments Treated by Each Remedy for Susto Found in Sample of Cases

MANZANILLA	YERBA ANIZ	YERBA BUENA	HOJA DE NARANJO	ALBACAR	CENIZO	TORONJIL
1. susto(2)	1. susto(14)	1. susto(1)	1. susto(1)	1. susto(4)	1. susto(1)	1. susto(1)
2. indigestion(1)	2. constipation(1)	2. indigestion(3)	2. insomnia(3)	2. insomnia(7)	2. insomnia(2)	2. cough(1)
3. colic(1)	3. indigestion(1)	3. colic(4)	3. indigestion(2)	3. colic(1)	3. whooping cough(1)	3. stomach ache (1)
4. eye irritation(2)	4. colic(1)	4. nervios(1)	4. colic(1)	4. nervios(3)	4. cough(7)	4. heart problems(4)
5. fever(2)	5. nervios(5)	5. fever(1)	5. nervios(15)	5. eye irritation(2)	5. stomach ache(2)	
6. stomach ache(14)	6. cough(3)	6. stomach ache(5)	6. cough(1)	6. earache(1)	6. liver problems(1)	
7. gas(1)	7. stomach ache(1)	7. menstrual cramps(1)	7. colds(1)	7. stomach ache(3)	7. hepatitis(1)	
8. menstrual cramps(1)	8. gas(1)	8. colds(1)	8. intestinal parasites(1)	8. infected tonsils(1)	8. jaundice(1)	
9. earache(1)	9. colds(1)	9. intestinal parasites(2)	9. hiccups(1)	9. sores(1)		
10. induce menstruation(1)	10. liver problems(1)	10. earache(2)	10. aid digestion(1)	10. headaches(2)		
11. stomach cramps(1)	11. stomach cramps(1)	11. anemia(1)		11. rid evil spirits(1)		
12. vomiting(1)	12. vomiting(1)	12. stomach cramps(2)				
13. jaundice(1)	13. body aches and pains(1)	13. toothache(1)				
14. yeast infection(1)		14. mouth infection(1)				
		15. feeling run-down(1)				
		16. panacea(1)				
Total cases(42)	Total cases(34)	Total cases(29)	Total cases(27)	Total cases(26)	Total cases(16)	Total cases(7)

ALTAMISA	PIRUL	AZUCAR	SIMONILLO	EPAZOTE DE ZORRILLO	JERBANILLO	SAL, VINAGRE Y AGUA
1. susto(3)	1. susto(3)	1. susto(1)	1. susto(1)	1. susto(1)	1. susto(1)	1. susto(1)
2. balding(1)		2. diarrhea(1)	2. flu(1)	2. colic(1)		
3. sprain(1)						
Total cases(5)	Total cases(3)	Total cases(2)	Total cases(2)	Total cases(2)	Total cases(1)	Total cases(1)

4 was created by using the computer to generate the frequency data on all of the ailments treated by each of the *remedies caseros* that are used to treat *susto.*

Even a casual inspection of Table 4 indicates that many of the remedies that treat *susto* also treat its symptoms, or treat problems that are both recognized as ailments in and of themselves, or as symptoms of *susto* when they occur in combination with other conditions. The extent of the clustering of ailments within the group of remedies that treat *susto* is presented in Table 5.

Out of a total of 42 ailments that have at least one treatment in common with *susto.* 17 (40.5 per cent) have at least two treatments in common and 7 (16.7 per cent) have three or more treatments in common. If the various stomach ailments (e.g., colic, indigestion, etc.) can be lumped under the general rubric "nausea," then nine out of the seventeen listed ailments are symptoms that accompany *susto.* A more conservative estimate would include only insomina, fever, vomiting, indigestion (adult *susto* symptoms), and colic (children's *susto* symptoms), lowering the percentage *of susto* symptoms in the above list from 52.9 per cent to 29.4 per cent. Two other symptoms of *susto* occur in the group of 24 ailments that have only one treatment in common with *susto.* These are diarrhea and feeling run down. A third ailment, anemia, would produce the symptoms of paleness and weakness associated with *susto.* Thus, within the total group of ailments that are treated by the remedies that treat *susto,* there appear to be a set that have a common symptomology with *susto.*

There also appears to be an additional set of ailments (e.g., eye irritation, sprained joints, hiccups, etc.) that are not symptomatically related to *susto,* but are linked to it through having one or more treatments in common. Following the logic presented earlier, this methodology of determining the treatments of one illness, then linking those treatments to the other illnesses that have these treatments in common, does appear to produce clusters of ailments that define common spheres of ethnomedical activity. At the same time, the level of variation within these clusters will necessitate considerable further analysis to determine the structural principles underlying these clusters, beyond the explanation of

Table 5

Ailments That Have Two or More Treatments in Common With Susto

Ailment	(No. of Treatments in Common)	Ailment	(No. of Treatments in Common)
1. Colic	(6)	10. Gas	(2)
2. Stomach ache	(6)	11. Menstrual Cramps	(2)
3. Nervios	(4)	12. Liver Problems	(2)
4. Indigestion	(4)	13. Jaundice	(2)
5. Cough	(4)	14. Intestinal Parasites	(2)
6. Colds	(3)	15. Empacho	(2)
7. Insomnia	(3)	16. Stomach Cramps	(2)
8. Fever	(2)	17. Vomiting	(2)

clustering due to the correspondence of symptoms among similarly treated ailments. It cannot be determined at this time what the ethnomedical relationship between *susto* and the nonsymptomatic ailments is, if any, beyond common treatments. However, that attempt, along with a statistical technique for describing the clustering effect, will be the subject of a subsequent article.

SUMMARY AND CONCLUSIONS

Three things are accomplished in this article. The relative position *of susto* is established within the overall morbidity patterns of a sample of cases of home treated illnesses within the Lower Rio Grande Valley of Texas. For the first time, the range and variation of treatment for the ailment are presented in a way that allows quantitative comparisons with other populations where *susto* exists within the community ethnomedical system. Finally, a preliminary descriptive method for clustering ailments that represent common spheres of activity within the home treatment of ailments in a community is presented.

This information provides a base to reassess the data and conclusions of earlier works on *susto.* The fact that over 60 per cent of the treatments for *susto* are ethnopharmacologicai, as opposed to magico-religious, lends some credence to the physical causation hypothesis for *susto.* The major current proponent for this position, Bolton (1980, 1981), develops the thesis that hypoglycemia causes the diagnosis of *susto* in Latin American populations, or, perhaps more accurately, that *susto* is the Latin American label for an equivalent disease labeled hypoglycemia in medical terminology. He bases this linkage *of susto* and hypoglycemia on a tripartate correlational analysis of the statistical relationships he discovered between people he empirically identified as having hypoglycemic tendencies, the presence or absences of high levels of hostility in individuals, and reported episodes of the presence or absence of previous or current *susto* diagnoses for his subjects. Unfortunately, while he carefully documents the correlations, there is one serious confounding problem in the logic behind his methodology. He bases the identification of an individual with hypoglycemic tendencies on a combination of "GTT (Glucose Tolerance Test) results and on their hypoglycemia symptom scores," (Bolton 1981:262). The latter scores were derived from a questionnaire designed to elicit the presence or absence of hypoglycemia symptoms. However, Bolton (1981:262) already demonstrated that "the symptoms usually described in the literature *for susto* patients and the most frequent complaints of hypoglycemia patients coincide." Therefore, if the hypoglycemia symptom scores form a significant part of the identification of someone with hypoglycemic tendencies, those persons should *a priori* have a very strong correlation with a past or present *susto* diagnosis, since the hypoglycemia symptom scores are also symptom scores for the hypoglycemia equivalent called *"susto."* In other words, Bolton has created a questionnaire that acts as a measure of susto symptoms (and, apparently, hypoglycemia symptoms) and has discovered that a high score on the instrument correlates very strongly with a past or present diagnosis *of susto* for that person; and he has found that persons who have a very low score on the *susto* symptom measure tend not to have been diagnosed as having *susto.* Stated this way, his results are not at all surprising, and in some ways they provide an interesting confirmation of some of the contentions set out by Fabrega (1970) on the specificity of folk illnesses in a population. Bolton's (1981) thesis fails, in its logical structure, to do more than show a strong correlation between *susto* symptoms and *susto* diagnosis. Starting with the same logic and methodology, it should be possible to produce similar correlations between any, and perhaps all, other diseases that share the major part of their symptomatology with both hypoglycemia and *susto.* such as those identified by Crandon (1981); i.e., vitamin B complex deficiencies, anemia, etc. In fact, those ailments become more

plausible causal factors for *susto* in the Valley, given a second part of the logical structure in Bolton's hypoglycemia hypothesis. He (Bolton 1981:274) states that

> there are many sources of hypoglycemia in Incawatana, e.g. hypoxic stress, dietary deficiencies, harsh climatic conditions, and a heavy disease load, and it is the combined effect of all these stressors that makes so many individuals in Incawatana prone to hypoglycemia.

Embedded in this statement, since he equates hypoglycemia and *susto,* is the implication that it is these stressors which produce the high level *of susto* in the population, and that without them *susto* would be drastically reduced or disappear. Unfortunately, he does not provide a quantitative measure of the incidence of *susto* which can be compared to the one derived for the Lower Rio Grande Valley data. However, given that *susto* is the ninth most common home treated ailment in the Valley sample, it is interesting to note that the elevation of the Valley at its highest point is 30 meters above sea level (hypoxia is *rare),* that the coldest temperatures experienced are normally four to six days per year in the 50 degree fahrenheit range, and that several nutritional studies have uncovered consistent vitamin A and D deficiencies, but no serious malnutrition endemic to the Valley population. The disease load in the Valley is heavy for the United States, but not heavy in comparison to the area represented by Bolton's research. And a spot survey of local physicians indicated no abnormal levels of hypoglycemia compared to the United States as a whole. Therefore, these conditions appear to weaken the hypoglycemia thesis and would have to be addressed before the Bolton hypothesis could be extended to the Lower Rio Grande Valley.

The evidence presented in this article does not affect the social causation hypothesis for *susto* in the same way that it does the above thesis. Social stress is certainly present in more than sufficient quantity, given the social, economic, and cultural dynamics of the region. *Susto* is available to be manipulated as a way of imposing control over social situations and definitions, and there is a constant negotiation and symbolization of identity among various alternatives presented by a multicultural environment. At the same time, *susto* is normally described by the social causation authors as a magical condition. Several of the authors use the phrase "magical fright" in the titles of their articles, and most include the idea that the disease includes the condition of "soul loss" as one of the ethnomedical elements of the ailment. Yet only about one third of the treatments in the sample are ritual in nature: which puts the social causation theorists in the position of having to find ethnographic evidence of the logical construct that an herbal tea is better (or at least more commonly used) for restoring a soul into a syncopy with the body than is a supernatural ritual. Rather than following such a course, an alternative condition is suggested based on the quantitative data provided here combined with the author's ethnographic data.

The combined ethnographic and quantitative data suggest that there is a cluster of symptoms/ailments that informants tentatively label *susto,* or label as individual ailments which are also symptoms of *susto.* There is a relatively wide choice of treatments for the ailments, the most common of which are herbal teas. If the "problem" goes away after its treatment, then the original diagnosis is probably confirmed in the mind of the informant, along with the reinforcement of the efficacy of the treatment. If the "problem" persists, or additional symptoms appear, other treatments may be attempted. Thus, the diagnosis is either reinforced, changed from *susto* symptom to *susto,* or changed away from *susto.* While there is no way of determining the treatment progression from the quantitative data, the ethnographic evidence suggests it may typically be from herbal to magical, and from treatment within the family context to treatment by a *curandero* and/or physician. This contention is supported by the comments of one *curandero* interviewed by the author who was asked if he treated *susto,* and if so, how often. He replied that, most of the time, there was no need for him to do so, since "everyone knows how to treat it, your grandmother, your aunt, your *comadre."* Instead, he only treated *sustopasado* (advanced *susto).* This, he and other *curanderos* stated, is more dangerous and must be treated through ritual processes of the type normally only attempted by *curanderos.* When asked to distinguish between the alternate forms of *susto* and *susto pasado,* the criteria appeared to be that if it was successfully treated by teas and the simple *barridas* your family might give you, it wasn't *susto pasado.* and if it wasn't successfully treated that way, it was *susto pasado.* Left untreated, *susto pasado* is thought to be potentially fatal.

When the *curandero's* comments are juxtaposed with my data and with Crandon's contention (1981) that *susto* is different for adults and children, at least among the Aymara, an interesting supposition results. The overall variation in *susto* that is implicit in these three lines of evidence, suggests that *susto* is actually a complex set of closely related ailments, as opposed to a single ailment. This makes susto analogous to the complex illness we call cancer. Cancer, like *susto,* has competing theories of causation, including various pyschosomanc hypotheses; and significant strides in understanding cancer were made only after some of the individual variants of the ailment were isolated and were no longer masked by the total range of syntomology and variation within the disease complex as a whole. This analogy suggests that if *susto* is a set of related ailments, rather than a simple ailment, it will be understood, and all of the lines of evidence will converge only after it is treated to a more particulate, rather than an incorrectly directed global, analysis. This approach may make it possible to reconcile some of the competing theories of causation by testing them against a properly defined variant of the illness. Thus, instead of confirming or challenging the social hypothesis of previous authors, the data presented in this paper suggest that a re-evaluation of *susto* itself needs to be undertaken to examine the variability inherent in the ailment both within and between cultures. Only in this way are the competing theories of causation likely to be resolved.

NOTES

1. There are some minor differences in the rauk order of the ailments listed here and those listed in Trotter (ituSia, i98ib). These are caused by the discovery ot incorrectly coded cases when the coding of all cases was rechecked tor this data run.
2. This creates an intriguing question tor future research. Even though it is the second most common folk illness, it has by tar the least prominent position in the literature. Is this neglect because *ampacho* is the most physical of the folk ailments, and lacks the ritual elaboration common to the others?
3. The binomial designations for the remedies, where they are botanical, are as follows: *Manzanilla* (camomiie) *Matncaru :hamomilla* L.; Yerba amz (anise) *Pimpinella anisttm* L, Yerba Buena (mint) *Mtntha spicata* L.; lioja de Naranjo (orange leaves) *Citrus auranttum* L.: Albacar (sweet basil) *Oiimum basilicum* L.; Cemzo (purple sage) *Leucophyllum texanum Beuth:* Toronjil igentle balm) *Melissa officinalis* L.; Altamisa (mugwort) *Ambrosia artemisiue/olia* L.; Pirul (California pepper tree) *Schinus molle* L.; Azucar (table sugar): Simonillo (unknown) possibly *Comyzn filagionoides* D.C.; Epazote de Zornllo (skunk weed) *Chtnopodtum grateo lens* Lag.; Jerbamllo (unidentified plant); Sal, vinagre, agua (mixture ot salt, water, and vinegar).

BIBLIOGRAPHY

Bolton, R. 1980. Susto: The Myth of a Folk Illness. Paper presented at the "9th annual meeting ot the American Anthropological Association, Washington, D.C.

———1981. Susto, Hostility, and Hypoglycemia. Ethnology 19:261-276.

Bourke, J. H. 1894. Popular Medicine Customs and Superstitions of the Rio Grande. Journal of American Folklore 7:119-146.

Crandon, L. lyHr. A Historico-Ecological Model for Susto. Paper presented at the Both annual meetings ot the American Anthropological Association. December, Los Angeles.

Fabrega, H. Jr. 1970. On the Specificity of Folk Illness. Southwestern Journal of Anthropology. 26:305-314.

Grebe, M. E., and J. Segura. 1974. Psiguiatna Folklonca de Chile: Estudio Anthropologico de sus Enfermedades Vigentes. Aeta Psiguiatrica y Psicologica de America Latina 20:307-382.

Gillen, J. 1945- Moche: A Peruvian Costal Community. Smithsonian Institution, Institute **of** Social Anthropology, Publication #3, Washington.

————1948. Magical Freight. Psychiatry II:38--400.

Goebel. O. i9~3- El Susto: A Descriptive Analysis. International Journal of Social Psychiatry 19:38-43.

Kiev, A. 1968. Curanderismo: Mexican American Folk Psychiatry. New York.

Logan, M. 19"9- Variations Regarding Susto Causality Among the Cakchiquel of Guatemala, Culture Medicine and Psychiatry 3:1-13-166.

Madsen, W. 1964. The Mexican Americans of South Texas. New York.

Nail, F. C., and J. Speilberg. 196". Social and Cultural Factors in the Response of Mexican Americans to Medical Treatment. Journal of Health and Social Behavior 8:299-308.

National Center tor Health Statistics. 1964. Health Survey Procedure: Concepts, Questionnaire Development and Definitions in the Health Interview Survey. Public Health Service Publication No. 1000, Series i, no. 2. Washington, D.C.

O'Nell, C. W. 1975. An Investigation ot Reported "Freight" as a Factor in the Etiology of Susto "Magical Freight." Ethos 3:41-63.

O'Nell, C. W.. and A. J. Rubei. 19^6. The Meaning of Susto (Magical Freight). Actas del Congreso International de Ainericamstas 3:343-349.

————1980. The Development and Use ot a Gauge to Measure Social Stress in Three Mesoamerican Communities. Ethnology 19:111-12~.

O'Nell, C. W., and H. A. Selby. 1968. Sex Differences in the Incidence of Susto in two Zapotec Pueblos: An Analysis ot the Relationship between Sex Role Expectations and a Folk Illness. Ethnology -:oviÖ5.

Romano. O. 1960. Donship in a Mexican American Community in Texas. American Anthropologist 62:966-9-6.

————1964. Don Pedrito Jaramillo. The Emergence of a Mexican American Folk Saint. Ph.D. Dissertation, University of California, Berkeley.

————1965. Charismatic Medicine, Folk Healing, and Folk Sainthood. American Anthropologist 6~: i 151-1 173.

Rubel, A. J. 1960. Concepts ot Disease in a Mexican American Community in Texas. American Anthropologist 6.y.-95-814.

————1964. The Epidemiology ot a Folk Illness: Susto in Hispanic America. Ethnology 3:268-283.

————19(10. Across the Tracks: Mexican Americans in a Texas City. Austin.

Rubei, A. J., and *C. W.* O'Nell. u;~9- Diricutades para Expresar al Medico los Trastornos que Aqueian al Paciente: La Entermedad del Susto, Domo Ejemplo. Boletin de la Oficina Sanitaria Panamericana 8-:103,*-112*.

Sal y Rosas. F. rgs8. El Mito del Jam o Susto de la Medicina indigena del Peru. Revista de la Sanuiad de Policia i8:i6~-2io.

Trotter. R. T. II. 1081a. Folk Remedies as Indicators of Common Illnesses: Examples from the United States-Mexico Border. Journal of Ethnopharmacology *4'.207-221*

————i98ib. Remedios Caseros: Mexican American Home Remedies and Community Health Problems. Social Science and Medicine 1-58:107-1 14.

Trotter, R. T., II. and J. A. Chavira. 1980. Curandensmo: An Ernie Theoretical Perspective of Mexican American Folk Medicine. Medical Anthropology 4:425-48-.

————1981. Curandensmo: Mexican American Folk Healing. Athens.

Uzzell, D., I9"4- Susto Revisited: Illness as Strategic Role. American Ethnologist 1:369-378.