Structural Analysis of Folktales: Techniques and Methodology

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I. Introduction

This report concerns the techniques utilized by the staff of the Philippine Folklife and Folklore Center of Xavier University in the structural study of Filipino myths and folktales. The report will deal with a description of our procedure and with some of the problems that have confronted the work.

A word of clarification is needed in order to distinguish between three concepts: structural theory, structural methodology, and technique. By structural theory we mean the theoretical basis of the type of analysis done by Lévi-Strauss and his followers. MacRae and Pouwer have formulated structural theory into four points: (1) appearance in human conduct and affairs is not reality; (2) reality is structured; (3) this structing is codelike; (4) the relationship between empirically testable appearance in the order of events and postulated reality in the order of structure is a dialectical one.

By structural methodology we refer to those operations that allow structural theory to be applied to a given body of data. Included in methodological matters are the idea of transformation, the idea of what constitutes a binary opposition, the idea of myths as sets and meta-sets, etc.

By technique we refer to the process of actually reading the myths and breaking them down into manageable units so we can apply structural methodology.

In this paper we will be concerned with both technique and meth-

odology, although theory will be mentioned a few times. We are not claiming that the technique presented here is the definitive technique of structural analysis. We are guided by the principles of structural methodology, but realize that different researchers will formulate different techniques in order to deal with the vast amount of information which must be digested in order to do a structural analysis of even a small number of myths. Some scholars will find that Lévi-Strauss' instructions to write the mythemes of a myth on separate index cards and to shuffle the cards until a pattern emerges are very useful. Others will get nowhere with this particular technique and will just read each myth and rely on insight and memory to find patterns and interconnections between myths. Technique doesn't matter as long as the rules of structural methodology are followed.

The techniques presented here were instituted to facilitate analysis by a group. Each worker reads a myth separately and makes his comments. Then the myth is passed on to another worker. Each worker makes his own comments without seeing the comments of the previous workers on that myth. After he makes his comments he may then read the other analyses and make any new comments that suggest themselves.

This procedure has two advantages which we think outweigh its rather obvious disadvantages in time and duplication of work. First, it allows a wider group of insights into a single myth. Patterns which one worker may overlook can be picked up by another. Second, it prevents the analysis from becoming the product of one person, who could possibly select data to fit his particular pet theory and thereby disregard information that would embarrass his pre-set notions. This second problem has been pointed out by numerous critics of structuralism. We do not claim to solve it, but at least this technique makes an individual alert to areas where his analysis is weak or overdrawn.

II. The Basis of the Structural Method

The methodology of structuralism of course flows from structural theory. The methodology seeks the answer to two questions that have long plagued the study of myths and legends. Lévi-Strauss has confronted both these questions head on and, given acceptence of structural theory, has solved them. The two problems can be labeled the "Interpretation Problem" and the "Construction Problem".

A. The "Interpretation Problem": One of the most sobering articles in the field of folklore is Lessa's review of the various interpretations

of the Oedipus myth. Even after we throw out those interpretations that have no current supporters, there still remain a very large number that appear to have some validity and which have not been disproven (mostly because they are phrased in ways which it impossible to disprove them). These include psychological theories (Freud, Jung), psycho-sociological theories (Fromm), ritual theories (Wallace), and structural theories (Lévi-Strauss, Thomson). The problem is how to decide between all these interpretations. One way out is to assert that all of the interpretations are correct on their own level and in their own way. This seems to be the choice of most folklorists. They accept the theory that most appeals to them and let the rest co-exist in peace. Or, if they attack alternative interpretations, they never decisively disprove them nor do they offer means whereby their chosen theory can be validated.

Lévi-Strauss' answer to this problem is based on structural assumptions:

Considered purely in itself, every syntagmatic sequence must be looked upon as being without meaning: either no meaning is apparent in the first instance; or we think we can perceive a meaning, but without knowing whether it is the right one. In order to overcome this difficulty, we can only resort to two procedures. One consists in dividing the syntagmatic sequence into superposable segments, and in proving that they constitute variations on one and the same theme. The other procedure, which is complementary to the first, consists in superposing a syntagmatic sequence in its totaltiy-in other words, a complete myth—on other myths or segments of myths. It follows, then, that on both occasions we are replacing a syntagmatic sequence by a paradigmatic sequence; the difference is that whereas in the first case the paradigmatic whole is removed from the sequence, in the second it is the sequence that is incorporated into it.... Two syntagmatic sequences, or fragments of the same sequence, which considered in isolation, contain no definite meaning, acquire a meaning simply from the fact that they are polar opposites. And since the meaning becomes clear at the precise moment when the couple is constituted, it did not exist previously, hidden but present, like some inert residue in each myth or fragment of myth considered separately. The meaning is entirely in the dynamic relation which simultaneously creates several myths or parts of the same myth, and as a result of which these myths, or parts of myths, acquire a rational existence and achieve fulfillment together as opposable pairs of one and the same set of transformations. (The Raw and the Cooked, p. 307)

The concept of syntagmatic and paradigmatic sequences needs to be fully understood before this passage makes sense. In order to explain them we will resort to creating two schematic myths which involve only the listing of animal names. We can visualize each name as an episode in a myth. The first myth, M1, is as follows:

1. Rabbit, 2. Horse, 3. Eagle, 4. Bear, 5. Goat, 6. Gopher,

8. Mole, 9. Sparrow, 10. Ant.

The question is what the myth means. We cannot tell from the syntagmatic sequence alone, which is just the order of episodes in the myth (the diachronic dimension). But if we take each episode as a separate element, compare it with the other elements of the myth regardless of the position in the story development, and look for common features we can uncover a meaning. One way to group the elements is to put the common elements in the same column:

1.	Rabbit				
2.	Horse	3.	Eagle		
4.	Bear				
5.	Goat			6.	Gopher
		7.	Hawk	8.	Mole
		9.	Sparrrow	10.	Ant

This grouping destroys the syntagmatic sequence, but creates a paradigmatic sequence (the synchronic, or non-temporal dimension). What does the paradigmatic sequence communicate (or "mean")? If we to label the columns the common features might be: Land Animal, Air Animal, Sub-Terranean Animal. Thus, M1 is a myth concerned about animal classification. This type of analysis illustrates the first procedure Lévi-Strauss mentions in the quote.

The second procedure does not destroy the syntagmatic sequence. Instead, it tries to find syntagmatic sequences that are common to two or more myths. To demonstrate this let us look at M2:

Shark, 2. Kite, 3. Raven, 4. Deer, 5. Coyote, 6. Hawk,
Eel, 8. Ray fish, 9. Buffalo
We first rearrange M2 as we did M1:

 Shark
 Kite
 Raven
 Deer
 Coyote
 Hawk

Fel
Ray fish
Buffalo

It is obvious M2 deals with the same problem as M1, but codes it in terms of Water Animals, Air Animals, Land Animals.

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If we look at the sequence in M1 of: 3. Eagle, 4. Beer, 5. Goat, 6. Gopher we see we have what Maranda calls a Continuous analogy: A:B::B:C, "A is to B as B is to C.", in this case: "Air Animal:Land Animal::Land Animal: Subterranean Animal." In other words, air animals are opposite of land animals, just as land animals are opposite of subterranean animals.

Is there a sequence in M2 which has the same pattern? Actually there are two. The first is: 1. Shark, 2. Kite, 3. Raven, 4. Deer, which gives the sequence "Water animal: Air Animal: Air animal: Land animal." The second sequence is: 6. Hawk, 7. Eel, 8. Ray fish, 9. Buffalo, which gives the sequence "Air Animal: Water Animal: Water Animal: Land Animal.

This demonstration has shown that M1 and M2 have three syntagmatic sequences in common and the paradigm which defines them is A:B::B:C. The meaning of the sequence in M1 can be understood as a function of those syntagmatic sequences in M2.

Here we should make another distinction that is essential to structural theory. This is the difference between "structure" and "content". The structure of a myth is the series of relations between its elements. The elements themselves are not part of the structure. The opposition between Life and Death (content) and High and Low (content) is always formulated as A:B (structure).

In our schematic myths, the three sequences we discovered by the second procedure all have different content, but the same structure A:B::B:C. It has been a claim of structuralists that they aren't interested in content except as it leads to structure, which is the ultimate study of anthropology.

From these explanations we can return to the quote and draw some important conclusions. First, myths are not to be taken as unbreakable sequences, rather we must break them down into segments and manipulate these segments. Second, some myths may have a selfcontained message we can discover by the first type of procedure (see Lévi-Strauss' analysis of the Oedipus myth), but other myths can only be understood in connection with separate myths (procedure two). Sometimes these other myths come from a completely different culture than the myth we are seeking to understand. *The Raw and the Cooked ex*hibits this type of analysis. Third, there are no unexplainable segments of myths, every segment can be explained either by reference to other segments in that myth or by segments in other myths. This point bears on the "Construction" problem discussed below.

It is clear the Lévi-Strauss' answer to the interpretation problem is sound given the validity of structural assumptions. Given the fact that the human mind is a structuring machine and that each myth is a structure in itself and is at the same time part of a structure bridging several myths, then his two procedures are the only way to understand myths.

The "Construction Problem": One problem never faced by В. folklorists is that of the totality of a myth. Most interpretations emphasize one or two features of the myth, but they never deal with what they consider the non-important elements. For example, in a Philippine earth-diver myth a series of animals try to bring a piece of earth from under the sea. All fail except a toad. Now a psychological analysis of this myth might focus upon the role of the toad and try to explain his success. For sake of argument let us assume that the myth is seen as a myth of sibling rivalry and the triumph of the toad is seen as the younger sibling. But this type of interpretation can never deal with the question of why a toad was chosen to succeed instead of another small animal which could have symbolized the younger sibling just as well. It also never explains why the particular animals chosen to fail are chosen instead of other animals which could have symbolized the older siblings.

The structural theory of myth assumes that every element in the myth is determined by the operation of the human mind. There are no random or accidential features in a myth. It is proper to ask about everything in a myth: "Why is this element or episode here and not something else?" Only when this "Why Question" has been answered for every element in the myth can the myth be said to have been explained.

If you look at myths from this perspective it is immediately obvious just how little the various schools of interpretation do attempt to explain. It is as if these schools accept that 20 to 30% of the myth must be explained while the bulk of the myth is random or somehow irrelevant.

Lévi-Strauss states several times that structural analysis must be exhaustive if it is to be successful. By this he means that every element in the myth must be explained. This explanation must take place by showing that a specific element is the only logical item to have at that particular place in the myth. The logical requirement may stem from the myth itself (procedure one) or from elements found in other myths (procedure two).

A rather simplified way of looking at this is to compare the building

of a myth with a card player trying to determine what card to lead with out of his hand. If his is the first play the only information he will have is the knowledge of the cards in his hand. Therefore his lead will be determined by the logic of the cards he has (procedure one). As the play continues he will gain other information about where certain cards are located, and sometimes his choice of a lead will be determined by this information (procedure two). Usually his lead is based on a combination of both types of information. As the *Mythologiques* demonstrates, this applies to myths also—they are built up with reference to both internal and external constraints.

As a simplifying device we will use the analogy of the bricoleur as a myth builder several times in this paper. This is a sort of personification of the structuring processes of the human mind. When we refer to the bricoleur it should be kept in mind that we are not refering to any particular myth-maker or myth-teller.

For this view of myths another series of methodological problems and procedures arise. The most important is simply the willingness to ask the question of "Why is this here?" A second is that elements must be defined so that we know what is an element and what isn't. Third, we must define what a "logical" answer to a "Why" question consists of in order to know when our question is fully answered.

C. *Two Examples*: In order to demonstrate how structural analysis deals with these two problems we will refer to two fragments of analyses that Lévi-Strauss has published.

The first comes from the first volume of the *Mythologiques*. There is a Kraho myth (M139) in which an alligator offers to help a girl cross a river on the condition that she insults him afterwards. This is certainly an unusual request and we have good reason to ask the reason why it is in the myth. It cannot be explained within the context of the myth. But there is a series of myths from other Ge tribes (M7–M12) which can explain the episode when they are combined with a Sherente myth (M124). A chart helps show the explanation:

M7-12	A jaguar	offers to help hero	Condition: he is treated
M124	An alligator	refuses to help hero	with respect Result: He is shown no
M 139	An alligator	offers to help heroine	consideration (insulted) Condition: he is shown
	U U	-	no consideration

It is clear what is happening here: M139 is a mixture of elements

from M7-12 and M124. It takes the alligator element and the element of insult from M124, but it combines them with the offer of help element in M7-12. Thus we have the explanation for the alligator's strange request.

The second example shows the value of asking why a particular element is present and also relates to the problem of interpretation. In his analysis of the Oedipus myth Lévi-Strauss finds the following message:

Overration of	Underrating of	Denial of the	Persistence of the
Blood Relations	Blood Relations	: Autochthonous	: Autochthonous
Diood Relations	Blood Relations	Origin of Man	Origin of Man

He bases his analysis of the fourth column in the series on the fact that heros born of the earth always have trouble walking. Now, this would explain why, out of all the possible riddles the Sphinx could have asked, it asked a riddle concerning walking. Its selection flowed from this logic and at the same time it serves as a clue to the meaning of the myth.

Let's refer to the first two columns. They appear as follows:

Cadmos seeks his sister, Europa,	
1	
ravished by Zeus	The Spartoi kill one another
Oedipus marries	
his mother,	Oedipus kills his
Jocasta	father, Laios
Antigone buries	Eteocles kills his
her brother,	brother, Polynices
Polynices, despite	
prohibition	

One of the problems of the Oedipus myth revolves around the question "Born of one/Born of two". These two columns state the relationship and give support to the "Born of two" answer. The first column is composed of male-female relationships and would be considered as "good" relationships in that the actions (protection, sex, burial) are proper, even if the relationship between the people indulging in the sex is incorrect. The second column is made up of only male-male relationships and is sterile, bringing only death. Again, no other interpretation of the Oedipus myth explains why all these relationships are present in the myth (unless they are seen as weakened forms of incest and patricide, although we would still have to explain why they should be weakened

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in a myth that confronts both problems so openly).

III. A Technique of Structural Analysis

A. Step I—Note Binary Oppositions: After reading the myth several times very carefully, the first step is to list all the binary oppositions in the myth. This procedure stems from the insistence of structural theory that the human mind works with pairs of opposites.

The exact definition of what constitutes a binary opposition remains unclear in structural method thus far. The difference between a binary opposition, a plain opposition, a difference, and a quantative difference have not been fully explored. In some cases it appears the two poles of the opposition must be completely opposed (night/day, dry/wet, up, down). In other cases it seems that the opposites do not have to be completely opposed in all traits, but only in one or two important attributes. Thus a turtle can be the opposite of a monkey for no other reason than one is a land dweller and the other is a sea dweller. But when the turtle is on land at the base of a tree and the monkey is in the tree withholding food from the turtle, the relevant contrasts may be: high/low, has food/has no food, rich/poor, selflessness/greediness, etc. Still a third case is where the opposition is based on a quantitative difference only. In From Honey to Ashes the contrast: few fish/many fish is treated as a binary opposition. As Burridge has pointed out, we need more clarification on this problem. For now the only guide we have is what Lévi-Strauss has called binary oppositions and what the reader himself feels qualifies as such. Usually the issue is easy to deal with when we work with only one element, but when we deal with larger sequences the problem is very difficult. For example, one sequence which occurs in a Bisayan myth is: Contained \rightarrow Free = Life, read as "A movement from a contained state to a free state results in life." What is the binary opposition of this sequence? Is it Free \rightarrow Contained = Death? This reverses all the elements of the first sequences, but note that it agrees with the first series in stating that confinement is bad and freedom is good. Or perhaps the proper opposition is Contained \rightarrow Free = Death, which reverses only the last term but since the same type of movements ends up with the opposite result qualifies as an opposition. A fourth possibility is Free \rightarrow Contained = Life. The last equation reverses the first two elements, but since the outcome is the same, it also qualifies as an opposition. The problem is which is the true binary opposition, or, are they all binary oppositions?

In most cases the polar elements of the opposition are included in the myth, but this is not always true. Sometimes one element is implied but not openly mentioned. In other cases one element of the pair is present, but its opposite is not defined until we read another myth.

Some important binary oppositions should always be kept in the in the analyst's mind while reading myths. These include: nature/culture, raw/cooked, consanquineal kin/affinal kin, life/death, earth/air/ water (any two of them), hunting/agriculture, do something/don't do something, high/low, etc. The analyst should also always be looking for members of what Lévi-Strauss calls the sensory codes. These are codes based on concrete qualities that are apprehended by our sense organs. There is a gustatory code (hot/cold food, raw/cooked, vegetables/meat, cannibalism/animal flesh, carrion/fresh meat, rotten/fresh), a tactile code (hard/soft), a visual code (seeing/not seeing, whole/fragmented), an olfactory code (sweet-smelling/stench, rotten/fresh) and an auditory code (loud/soft, hear/don't hear, silence/noise).

Along with the search for binary oppositions goes the search for mediating terms. Again we discover a certain ambiguity in the definition of mediation in Lévi-Strauss' work. One type of mediating element is an object or a person that brings two opposites into contact, without itself partaking of the nature of either. An example from the many cultures would be the rainbow, which mediates between heaven and earth.

The second type of mediator looks more like the synthesis in the Hegelian thesis—antithesis—synthesis process. This type of mediator actually partakes of the nature of both of the opposite elements. Therefore it reconciles the contradiction. Two examples will illustrate.

In certain South American myths, man is the opposite of the jaguar. There is no reciprocity between the two. The monkey, although he appears in none of the same myths as the man and the jaguar, is the mediator. He is like a man in that he was once trapped at the top of a tree by a jaguar. He is like a jaguar in that he is the master of fire. We can diagram this situation:

JAGUAR		MONKEY	MAN
+ fire			— fire
— tree			+ tree
<u> </u>	+ fire	+	tree

The second example illustrates why a woman is fit to mediate between man and jaguar. In the folk taxonomy of the South American Indian (and a great many other cultures of the world) women are considered as somehow less cultured than men. She is still to a great extent

a natural creature, and this nature is not destroyed by trying to confine its expression to the marriage situation. At the same time, because she is involved in marriage and because she uses cultural artifacts, she is obviously more cultured than the jaguar. Thus, we can view her as an element uniting two binary opposites:

JAGUAR	WON	MAN	MAN
- Culture			+ Culture
+ Nature			— Nature
	+ Nature	+ Culture	

All binary oppositions and mediators found in the myth should be listed on the comment sheet for that myth. Any binary opposition that appears in more than one myth should be listed at the top of an index card and the names and numbers of all myths which contain that opposition should be listed underneath. This card should be kept in a separate file. Another card should be made for any mediator that appears in more than one myth. It should go in another file. Both these files should be consulted every time a new myth is analyzed. They will provide the first chance of linking up myths that may appear to have nothing in common at first sight.

B. Step II—Find Mythemes: As previously noted, a myth must be broken down into syntagmatic sequences which are the basic problems of explanation. These syntagmatic sequences are called "gross constituent units", or mythemes. The precise definition of what constitutes a mytheme is unclear, but as a general guide we will quote Lévi-Strauss' recommended technique:

How shall we proceed in order to identify and isolate these...mythemes? We know that they cannot be found among phonemes, morphemes, or sememes, but only on a higher level.... Therefore, we should look for them on the sentence level. The only method we can suggest at this stage is to proceed tentatively, by trial and error, using as a check the principles which serve as a basis any kind of structural analysis: economy of explanation; unity of solution; and ability to reconstruct the whole from a fragment, as well as later stages from previous ones.

The technique which has been applied so far by this writer consists in analyzing each myth individually, breaking down tis story into the shortest possible sentences, and writing each sentence on an index card bearing a number corresponding to the unfolding of the story.

Practically, each card will thus show that a certain function is, at a given time, linked to a given subject. Or, to put it otherwise, each gross constituent unit will consist of a *relation*. (Structural Anthropology, p. 207)

We do not write each mytheme on an individual card, but rather

just list them on the comment sheet. Workers must continually be reminded that the mythemes are to be the shortest possible retelling of the myth. Usually it is best to strive for mythemes that contain a subject, a verb, and a direct object. An analyst must not be afraid to leave out a great deal of the body of the myth when formulating the mythemes (but this does not allow him to leave the excluded material unexplained).

C. Step III—Find Individual Myth Message: In discussing the ways to explain a myth we noted there were two procedures valid in structural analysis. The first was to show that the mythemes in a single myth are variations on the same theme:

The true constituent units of a myth are not the isolated relations but bundles of such relations, and it is only as bundles that these relations can be put to use and combined so as to produce a meaning. Relations pertaining to the same bundle may appear diachronically at remote intervals, but when we have succeeded in grouping them together we have organized our myth according to a time referent of a new nature...namely, a two dimensional time referent which is simultaneously diachronic and synchronic. (Structural Anthropology, p. 207–208)

For an illustration of such bundles of relations, the reader is referred to our previous remarks on the Oedipus myth.

At this point each worker will do different things. Some may make up their own set of mytheme cards and manipulate them until they find a pattern. Others will manipulate them in their minds. Each worker will have to use they method he finds most productive.

The number of bundles in which the mythemes may be arranged is apparently not set. It does seem that only an even number makes sense. Lévi-Strauss found four bundles in the Oedipus myth and this seems to be the most common number. However, there are myths where six bundles are found. Any number above six should be looked on with great suspicion, the worker has probably not gotten down to the underlying concepts. Unfortunately there are no rules that tell us how we should go about finding which relations belong to which bundles, or what we should call each bundle. This is a process of trial and error and each worker improves with practice.

There will be myths that seem to carry no message or in which the mythemes are so few in number that to attempt a message would be a waste of time. While admitting the existence of such myths (which must be explained by procedure two), the workers should not become use to dismissing myths whose messages are not obvious as myths not having any internal messages. A good deal of time should be spent looking for messages that are difficult to discern at first.

Sometimes it is possible to arrange the mythemes into two or more messages. Each of these should be noted. The status of these alternative messages is not clear. Sometimes Lévi-Strauss speaks of finding the *real* meaning of a myth, which seems to imply that there is only one message. At other times he seems to grant that there may be a number of messages in the myth.

In finding the message the worker should number each of the mythemes he wrote out in step II and arrange these numbers in columns. Underneath each column should be a label. An example:

1	2		
3		4	
5		6	7
	8		9
Conjunction	Disjunction	Life	Death

D. Step IV—List Links to Other Myths: This step takes in the second procedure noted above. In this section of the comment sheet we attempt to relate the separate myth into a series of logical units.

There are a number of different types of information in this section. First, we list all binary oppositions and mediators the myth has in common with other myths. The names and numbers of these myths are noted, also any comments about the ways in which the oppositions or mediators are used are recorded.

Second, we search for syntagmatic sequences that are common to more than one myth. These may be straight duplications of episodes or they may be transformations. By transformations we mean the instances in which the relations and actions are common to two sequences, but the actors or objects involved in those relations are changed.

For example, suppose M1 has a sequence in which a monkey and a turtle are involved and in which the monkey is punished because he ate the turtle's food. Now, in M2 we may have a sequence involving a woman and a dog in which the woman is punished because she talks to the dog and makes it answer her. The two are related by the following transformations:

M1		M2
Monkey	\rightarrow	Woman
Don't eat	\rightarrow	Don't talk
Turtle	\rightarrow	Dog

When we find sequences like this it is possible to explain both myths in terms of their common logic and their relation to each other.

While we get help in locating binary oppositions and mediators common to a number of myths by refering to the two files on those items, the search for common syntagmatic sequences is more difficult. It requires keeping in memory the sequences involved in many myths. Frequent re-reading of myths helps in this search. We have no way to overcome this rather haphazard method, although if the sequences could be coded onto computer cards it might be possible to make the search more complete.

There is a small problem of bookkeeping involved in this section. Every time we note an interconnection between the myth currently under study and a myth previously studied, we must note it on the comment sheets of both myths. In order to avoid underestimating the space needed to record these interconnections we attach a separate sheet to each myth.

E. Step V—General Comments: This last section is for anything the analyst feels that it is important to note about the myth. In practice this section becomes a place to predict future interconnections with myths not yet read and to list unique aspects of the myth which the analyst feels will bear further study or which demand an explanation.

The practice of predicting the sequences of unread myths is a good way to narrow down the search for a myth which will complete a series. If we can grasp the potential outline of a future myth it is possible to send a worker through the body of myths at our disposal looking for only a few features. In no predictions about future sequences are made or the logical alternatives are numerous, we must continue to read myth after myth in the hope of uncovering the needed sequence.

Of course when we discover that we can predict myth sequences and then find myths that actually conform to the prediction, we have some indication that our analysis is on the right track. Also, the structural analysis of myths is given some support with each successful prediction.

F. Some Notes: There should be a separate file kept for all animal and plant elements that appear in myths. The name of the element should appear on the top of an index card and underneath should appear all the myths in which the item appears. If the item is in opposition to another animal or plant it should be noted on this card. This file helps to define the semantic position of any given animal or plant in a series of myths. It should be noted that we cannot define the semantic use of an animal or plant once and for all. Rather, the function of an

animal or plant may vary from myth to myth, but the variations will be within the limits set out by a strict logic of concrete qualities.

It also helps to have the scientific names for all plants and animals included on the card. This should be in addition to a full description of the item, and, if possible, a picture. Also on an attached card should be placed any ethnographic information about the object in question. We must always keep in mind that the structural analysis of myth operates by first placing every item in the myth within its cultural context (as far as possible).

IV. Some Problems in the Philippines

Structuralism has a great many methodological, theoretical and technical problems associated with it. We have mentioned some of these above and will deal with some in the next chapter. Aside from these general problems there are a host of specific problems which will face workers in specific cultural areas. Brief mention is made of some of the problems encountered in working with Filipino myths.

A. Lack of Data: Although there are a few groups whose mythology is well reported in the area, most groups have had little or no work done on their myths. For most groups this means we will never have anywhere near enough data to complete even a partial structural investigation. This problem is obviously the worst for the lowland groups whose cultural system was fairly quickly overwhelmed by Christianity and its myths. The same problem applies to those groups which have rejected or modified their original mythological system with the acceptance of Islam.

B. The Diachronic Problem: The blending of aboriginal myths with Christian myths and with Spanish culture is not a well documented process. There are large gaps in time and space. From the myths included in the Pavon and Povedano manuscripts to current Bisayan folktales is a period of four hundred years, and it would be very difficult to fill in the gaps without engaging in the worst types of conjecture.

C. The Relation between the Structure of Aboriginal Myth and the Structure of Hybrid Christian or Islam Folktales: Lévi-Strauss tells us that the human mind works with the same processes all over the world. So there is no real difference between the mind which structures a Bisayan myth and that structuring a Christian or Islamic folktale. But the question is whether we can use a current folktale to understand an aboriginal tale, even if we know precise diachronic relations. We cannot

decide too quickly on this question. Only further work will answer it. In the meantime, it can't hurt to experiment.

D. The Mixture of Cultures: In choosing the myths of South America for his Mythologiques series Lévi-Strauss avoided the problem of whether or not it is permissible to use a myth from one cultural group to explain the myth of a second group it the two are not related closely in either time or culture. One of the reasons he argued that it is proper to explain a Bororo myth by a Ge myth is that the cultures of South America were so homogenous, with close links in time and space. This situation doesn't exist for the Philippines. To explain an Ifugao myth by a Manobo myth will certainly raise many voices in protest. But this is something which must be tested out in practice rather than rejected immediately. There is an underlying unity to the cultures of the Philippines and this unity may justify culture hopping.

But the problem is not limited to groups just within the Philippines. In his South American material Lévi-Strauss ran into a number of myths which could be explained only by means of myths from North American tribes. He justifies this by saying the great mythological themes are common to both areas. If this type of reasoning is applicable to the Philippines, it would mean that the mythology of all of South-east Asia might have to be brought to bear in a study of Philippine mythology. This ultimately might take us across Asia to Indian mythology. The vast amount of work which would be necessary in this case is a formidable obstacle to a complete structural study of the myths of any one group. But perhaps we can still gain important insights with the use of structural analysis without doing a complete analysis of every myth. But if we adopt this latter course we must always remember that all our interpretations are going to remain tentative, for the criterion for a completely validated structural study is exhaustiveness and coherence. As long as one myth which belongs to a system is overlooked coherence cannot be established for features in that myth might invalidate a pattern that formerly appeared coherent.

V. The Reason for Structural Studies of Myths

With the details given above on the amount of work that must go into structural analysis, some folklorists may ask whether or not the results are worth the trouble. In this section we will conclude by discussing some of the reasons structural analysis is important to folklorists.

The study of mythology and folklore has always had a hard time

justifying itself. When we look at the relationship between the wider field of anthropology and the sub-field of folklore after the Second World War, we can see some of this problem. In an anthropology which was becoming increasingly receptive to materialistic thought and to statistical studies of society, the field of folklore seemed to be a pleasant but not too scientific (hence not too important) subfield, populated by researchers with a rather cavalier attitude towards questions of methodology and verification and whose attitude towards computers and statistics was one of reserve, if not open hostility.

The failure of folklorists to embrace the "hard science" approach to culture which has now become so popular in anthropology might not have been so important if it had not been tied in with another trend: the retreat of folklore from questions which were of interest to the general scientific study of mankind. The articles in the folklore journals seemed more and more specialized, dealing with matters that could interest only the most avid specialists in the field. Further, the vast majority of articles were of a descriptive nature (at a time when articles in the wider field of anthropology were becoming increasingly theoretical). Many consisted in collections of tales and riddles with little or no analysis attached. After the functional theory of myth had been presented (by general anthropologists, not folklorists), the field seemed to lose its ability to contribute anything of theoretical importance to the study of man. The study of myth and folklore was in danger of becoming a peripheral area of anthropology, far removed from the center of theoretical debate, which was beginning to be dominated by the breakdown of functionalism, a revival of interest in cultural evolution and ecology, cross-cultural studies, and componential analysis.

In 1955 Lévi-Strauss published his paper on "The Structural Study of Myth." This paper was the start of the return of the study of myth to the center of the anthropological stage. Since that first paper structuralism has become perhaps the most hotly debated position in anthropology. And within structuralism the study of mythology takes a privileged position. We must remember that structuralism is a general theory of human culture. If there really are structural constraints on human thought, they must operate in all domains of culture. This includes science, art, economics, kinship, etc. as well as in mythology and religion. But in his search for evidence of these constraints Lévi-Strauss has given definite priority to the study of myth.

The logic behind this position is important. Lévi-Strauss' first investigation of structure was his *Elementary Structures of Kinship*. He

gave impressive evidence for his position, but he was dissatisfied with the results because there were too many material realities that masked the structuring process in kinship structures. Therefore he turned to mythology:

Mythology has no obvious practical function: unlike the phenomena previously studied (kinship), it is not directly linked with a different kind of reality, which is endowed with a higher degree of objectivity than its own and whose injunctions it must therefore transmit to minds that seem perfectly free to indulge their creative spontaneity. And so, if it were possible to prove in this instance, too, that the apparent arbitarariness of the mind, its supposely spontaneous flow of inspiration, and its seemingly uncontrolled inventiveness imply the existence of laws operating at a deeper level, we would inevitably be forced to conclude that when the mind is left to commune with itself and no longer has to come to terms with objects, it is in a sense reduced to imitating itself as object; and that since the laws governing its operation are not fundamentally different from those it exhibits in its other functions, it shows itself to be of the nature of a thing among things. The argument need not be carried to this point, since it is enough to establish the conviction that if the human mind appears determined even in the realm of mythology, a fortiori it must also be determined in all spheres of activity. (The Raw and the Cooked, p. 10)

This rather over-simplified view of the importance of structuralism to folklore is necessary in order to evaluate the paradox that has come to characterize structuralism today. At the same time, it clearly shows why the paradox must be overcome.

The paradox is that while structuralism has generated a vast literature, very little of it has been concerned with applying the structural methodology and theory to specific problems. Most of the literature has revolved around the idea of structuralism itself. This type of article deals with theoretical problems inherent in the orientation. Sometimes one or two myths are analyzed in a half-hearted manner (thereby taking them outside the method they propose to illustrate) to illustrate a point, but otherwise no one has stepped in and tried to use structural analysis on a body of myths to see if it works for them or not. This should not be taken as a criticism of this type of work, for in dealing with a theory that is so sweeping and yet so vaguely formulated, this type of theoretical questioning is very necessary. But most of the criticisms are not totally antagonistic to structuralism. Most writers point out the problems with the theory and method and then adopt a wait-and-see attitude. The problem is that while everyone agrees on the problems, no one, except Lévi-Strauss is engaged in confronting them in order to discover if the

problems can be overcome, or if the theory and method must be totally or partially junked.

The sight of a single individual working out a theory while the rest of his colleagues wait for the result is not that rare in science, but in the case of Lévi-Strauss and structuralism it takes on a new dimension. The criticism most often heard of structuralism is that the structures Lévi-Strauss discovers do not arise from the myths themselves, but rather from his own very fertile mind. A special case of this criticism is that structuralism really isn't a methodology at all and that it is impossible to follow it in practice (see Burridge in the ASA volume *The Structural Study of Myth and Totemism* on this point).

It is obvious neither or these criticisms have destroyed the interest in structuralism thus far. But they must be tested for their validity and if they are found to be accurate, then we may have to conclude that Lévi-Strauss has built a grand, but nonetheless illusionary, system. But the only way for these criticisms to be tested is for other scholars to attempt to use structural analysis in their own fields and to see what results they obtain. It is one of the point of this report that the experts on mythology of particular areas are the ones best suited to undertake this test. By so doing they can make a valuable contribution to general anthropological theory, since if structural analysis is invalid for mythology, then it must be invalid for all other areas of culture (including kinship theory, where structuralism has had its greatest acceptance in anthropology).