THE STRUCTURAL STUDY OF MYTH

By Claude Lévi-Strauss

"It would seem that mythological worlds have been built up only to be shattered again, and that new worlds were built from the fragments."

> Franz Boas, in Introduction to James Teit,
> *Traditions of the Thompson River Indians of
> British Columbia,* Memoirs of the American
> Folklore Society, VI (1898), 18.

1.0. Despite some recent attempts to renew them, it would seem that during the past twenty years anthropology has more and more turned away from studies in the field of religion. At the same time, and precisely because professional anthropologists' interest has withdrawn from primitive religion, all kinds of amateurs who claim to belong to other disciplines have seized this opportunity to move in, thereby turning into their private playground what we had left as a wasteland. Thus, the prospects for the scientific study of religion have been undermined in two ways.

1.1. The explanation for that situation lies to some extent in the fact that the anthropological study of religion was started by men like Tylor, Frazer, and Durkheim who were psychologically oriented, although not in a position to keep up with the progress of psychological research and theory. Therefore, their interpretations soon became vitiated by the outmoded psychological approach which they used as their backing. Although they were undoubtedly right in giving their attention to intellectual processes, the way they handled them remained so coarse as to discredit them altogether. This is much to be regretted since, as Hocart so profoundly noticed in his introduction to a posthumous book recently published,[1] psychological interpretations were withdrawn from the intellectual field only to be introduced again in the field of affectivity, thus adding to "the inherent defects of the psychological school . . . the mistake of deriving clear-cut ideas . . . from vague emotions." Instead of trying to enlarge the framework of our logic to include processes which, whatever their apparent differences, belong to the same kind of intellectual operations, a naive attempt was made to reduce them to inarticulate emotional drives which resulted only in withering our studies.

1.2. Of all the chapters of religious anthropology probably none has tarried to the same extent as studies in the field of mythology. From a theoretical point of view the situation remains very much the same as it was fifty years ago, namely, a picture of chaos. Myths are still widely interpreted in conflicting ways: collective dreams, the outcome of a kind of esthetic play, the foundation of ritual. . . . Mythological figures are considered as personified abstractions, divinized heroes or decayed gods. Whatever the hypothesis, the choice amounts to reducing mythology either to an idle play or to a coarse kind of speculation.

1.3. In order to understand what a myth really is, are we compelled to choose between platitude and sophism? Some claim that human societies merely express,

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[1] A. M. Hocart, *Social Origins* (London, 1954), p. 7.

through their mythology, fundamental feelings common to the whole of mankind, such as love, hate, revenge; or that they try to provide some kind of explanations for phenomena which they cannot understand otherwise: astronomical, meteorological, and the like. But why should these societies do it in such elaborate and devious ways, since all of them are also acquainted with positive explanations? On the other hand, psychoanalysts and many anthropologists have shifted the problems to be explained away from the natural or cosmological towards the sociological and psychological fields. But then the interpretation becomes too easy: if a given mythology confers prominence to a certain character, let us say an evil grandmother, it will be claimed that in such a society grandmothers are actually evil and that mythology reflects the social structure and the social relations; but should the actual data be conflicting, it would be readily claimed that the purpose of mythology is to provide an outlet for repressed feelings. Whatever the situation may be, a clever dialectic will always find a way to pretend that a meaning has been unravelled.

2.0. Mythology confronts the student with a situation which at first sight could be looked upon as contradictory. On the one hand, it would seem that in the course of a myth anything is likely to happen. There is no logic, no continuity. Any characteristic can be attributed to any subject; every conceivable relation can be met. With myth, everything becomes possible. But on the other hand, this apparent arbitrariness is belied by the astounding similarity between myths collected in widely different regions. Therefore the problem: if the content of a myth is contingent, how are we going to explain that throughout the world myths do resemble one another so much?

2.1. It is precisely this awareness of a basic antinomy pertaining to the nature of myth that may lead us towards its solution. For the contradiction which we face is very similar to that which in earlier times brought considerable worry to the first philosophers concerned with linguistic problems; linguistics could only begin to evolve as a science after this contradiction had been overcome. Ancient philosophers were reasoning about language the way we are about mythology. On the one hand, they did notice that in a given language certain sequences of sounds were associated with definite meanings, and they earnestly aimed at discovering a reason for the linkage between those sounds and that meaning. Their attempt, however, was thwarted from the very beginning by the fact that the same sounds were equally present in other languages though the meaning they conveyed was entirely different. The contradiction was surmounted only by the discovery that it is the combination of sounds, not the sounds in themselves, which provides the significant data.

2.2. Now, it is easy to see that some of the more recent interpretations of mythological thought originated from the same kind of misconception under which those early linguists were laboring. Let us consider, for instance, Jung's idea that a given mythological pattern—the so-called archetype—possesses a certain signification. This is comparable to the long supported error that a sound may possess a certain affinity with a meaning: for instance, the "liquid" semi-vowels with water, the open vowels with things that are big, large, loud, or heavy, etc., a kind of theory which still has its supporters.[2] Whatever emendations the original formulation may now call for, everybody will agree that the Saussurean principle of the arbitrary character of the linguistic signs was a prerequisite for the acceding of linguistics to the scientific level.

[2] See, for instance, Sir R. A. Paget, "The Origin of Language. . . ," *Journal of World History,* I, No. 2 (UNESCO, 1953).

2.3. To invite the mythologist to compare his precarious situation with that of the linguist in the prescientific stage is not enough. As a matter of fact we may thus be led only from one difficulty to another. There is a very good reason why myth cannot simply be treated as language if its specific problems are to be solved; myth *is* language: to be known, myth has to be told; it is a part of human speech. In order to preserve its specificity we should thus put ourselves in a position to show that it is both the same thing as language, and also something different from it. Here, too, the past experience of linguists may help us. For language itself can be analyzed into things which are at the same time similar and different. This is precisely what is expressed in Saussure's distinction between *langue* and *parole,* one being the structural side of language, the other the statistical aspect of it, *langue* belonging to a revertible time, whereas *parole* is non-revertible. If those two levels already exist in language, then a third one can conceivably be isolated.

2.4. We have just distinguished *langue* and *parole* by the different time referents which they use. Keeping this in mind, we may notice that myth uses a third referent which combines the properties of the first two. On the one hand, a myth always refers to events alleged to have taken place in time: before the world was created, or during its first stages—anyway, long ago. But what gives the myth an operative value is that the specific pattern described is everlasting; it explains the present and the past as well as the future. This can be made clear through a comparison between myth and what appears to have largely replaced it in modern societies, namely, politics. When the historian refers to the French Revolution it is always as a sequence of past happenings, a non-revertible series of events the remote consequences of which may still be felt at present. But to the French politician, as well as to his followers, the French Revolution is both a sequence belonging to the past— as to the historian—and an everlasting pattern which can be detected in the present French social structure and which provides a clue for its interpretation, a lead from which to infer the future developments. See, for instance, Michelet who was a politically-minded historian. He describes the French Revolution thus: "This day . . . everything was possible. . . . Future became present . . . that is, no more time, a glimpse of eternity." It is that double structure, altogether historical and anhistorical, which explains that myth, while pertaining to the realm of the *parole* and calling for an explanation as such, as well as to that of the *langue* in which it is expressed, can also be an absolute object on a third level which, though it remains linguistic by nature, is nevertheless distinct from the other two.

2.5. A remark can be introduced at this point which will help to show the singularity of myth among other linguistic phenomena. Myth is the part of language where the formula *traduttore, traditore* reaches its lowest truth-value. From that point of view it should be put in the whole gamut of linguistic expressions at the end opposite to that of poetry, in spite of all the claims which have been made to prove the contrary. Poetry is a kind of speech which cannot be translated except at the cost of serious distortions; whereas the mythical value of the myth remains preserved, even through the worst translation. Whatever our ignorance of the language and the culture of the people where it originated, a myth is still felt as a myth by any reader throughout the world. Its substance does not lie in its style, its original music, or its syntax, but in the *story* which it tells. It is language, functioning on an especially high level

where meaning succeeds practically at "taking off" from the linguistic ground on which it keeps on rolling.

2.6. To sum up the discussion at this point, we have so far made the following claims: 1. If there is a meaning to be found in mythology, this cannot reside in the isolated elements which enter into the composition of a myth, but only in the way those elements are combined. 2. Although myth belongs to the same category as language, being, as a matter of fact, only part of it, language in myth unveils specific properties. 3. Those properties are only to be found *above* the ordinary linguistic level; that is, they exhibit more complex features beside those which are to be found in any kind of linguistic expression.

3.0. If the above three points are granted, at least as a working hypothesis, two consequences will follow: 1. Myth, like the rest of language, is made up of constituent units. 2. These constituent units presuppose the constituent units present in language when analyzed on other levels, namely, phonemes, morphemes, and semantemes, but they, nevertheless, differ from the latter in the same way as they themselves differ from morphemes, and these from phonemes; they belong to a higher order, a more complex one. For this reason, we will call them *gross constituent units*.

3.1. How shall we proceed in order to identify and isolate these gross constituent units? We know that they cannot be found among phonemes, morphemes, or semantemes, but only on a higher level; otherwise myth would become confused with any other kind of speech. 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 for any kind of structural analysis: economy of explanation; unity of solution; and ability to reconstruct the whole from a fragment, as well as further stages from previous ones.

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

3.3. Practically each card will thus show that a certain function is, at a given time, predicated to a given subject. Or, to put it otherwise, each gross constituent unit will consist in a relation.

3.4. However, the above definition remains highly unsatisfactory for two different reasons. In the first place, it is well known to structural linguists that constituent units on all levels are made up of relations and the true difference between our gross units and the others stays unexplained; moreover, we still find ourselves in the realm of a non-revertible time since the numbers of the cards correspond to the unfolding of the informant's speech. Thus, the specific character of mythological time, which as we have seen is both revertible and non-revertible, synchronic and diachronic, remains unaccounted for. Therefrom comes a new hypothesis which constitutes the very core of our argument: 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 reorganized our myth according to a time referent of a new nature corresponding to the prerequisite of the initial hypothe-

sis, namely, a two-dimensional time referent which is simultaneously diachronic and synchronic and which accordingly integrates the characteristics of the *langue* on one hand, and those of the *parole* on the other. To put it in even more linguistic terms, it is as though a phoneme were always made up of all its variants.

4.0. Two comparisons may help to explain what we have in mind.

· 4.1. Let us first suppose that archaeologists of the future coming from another planet would one day, when all human life had disappeared from the earth, excavate one of our libraries. Even if they were at first ignorant of our writing, they might succeed in deciphering it—an undertaking which would require, at some early stage, the discovery that the alphabet, as we are in the habit of printing it, should be read from left to right and from top to bottom. However, they would soon find out that a whole category of books did not fit the usual pattern: these would be the orchestra scores on the shelves of the music division. But after trying, without success, to decipher staffs one after the other, from the upper down to the lower, they would probably notice that the same patterns of notes recurred at intervals, either in full or in part, or that some patterns were strongly reminiscent of earlier ones. Hence the hypothesis: what if patterns showing affinity, instead of being considered in succession, were to be treated as one complex pattern and read globally? By getting at what we call *harmony,* they would then find out that an orchestra score, in order to become meaningful, has to be read diachronically along one axis—that is, page after page, and from left to right—and also synchronically along the other axis, all the notes which are written vertically making up one gross constituent unit, i.e. one bundle of relations.

4.2. The other comparison is somewhat different. Let us take an observer ignorant of our playing cards, sitting for a long time with a fortune-teller. He would know something of the visitors: sex, age, look, social situation, etc. in the same way as we know something of the different cultures whose myths we try to study. He would also listen to the séances and keep them recorded so as to be able to go over them and make comparisons—as we do when we listen to myth telling and record it. Mathematicians to whom I have put the problem agree that if the man is bright and if the material available to him is sufficient, he may be able to reconstruct the nature of the deck of cards being used, that is: fifty-two or thirty-two cards according to case, made up of four homologous series consisting of the same units (the individual cards) with only one varying feature, the suit.

4.3. The time has come to give a concrete example of the method we propose. We will use the Oedipus myth which has the advantage of being well-known to everybody and for which no preliminary explanation is therefore needed. By doing so, I am well aware that the Oedipus myth has only reached us under late forms and through literary transfigurations concerned more with esthetic and moral preoccupations than with religious or ritual ones, whatever these may have been. But as will be shown later, this apparently unsatisfactory situation will strengthen our demonstration rather than weaken it.

4.4. The myth will be treated as would be an orchestra score perversely presented as a unilinear series and where our task is to re-establish the correct disposition. As if, for instance, we were confronted with a sequence of the type: 1,2,4,7,8,2,3,4,6,8,1,4,5,7, 8,1,2,5,7,3,4,5,6,8 . . . , the assignment being to put all the 1's together, all the 2's, the 3's, etc.; the result is a chart:

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1 2    4      7 8
  2 3  4    6    8
1        4 5    7 8
1 2        5    7
      3 4  5
              6    8
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4.5. We will attempt to perform the same kind of operation on the Oedipus myth, trying out several dispositions until we find one which is in harmony with the principles enumerated under 3.1. Let us suppose, for the sake of argument, that the best arrangement is the following (although it might certainly be improved by the help of a specialist in Greek mythology):

Kadmos seeks his sister Europa ravished by Zeus		Kadmos kills the dragon	
	The Spartoi kill each other		Labdacos (Laios' father) = *lame* (?)
	Oedipus kills his father Laios		Laios (Oedipus' father) = *left-sided* (?)
		Oedipus kills the Sphinx	
Oedipus marries his mother Jocasta	Eteocles kills his brother Polynices		Oedipus = *swollen-foot* (?)
Antigone buries her brother Polynices despite prohibition			

4.6. Thus, we find ourselves confronted with four vertical columns each of which include several relations belonging to the same bundle. Were we to *tell* the myth, we would disregard the columns and read the rows from left to right and from top to bottom. But if we want to *understand* the myth, then we will have to disregard one half of the diachronic dimension (top to bottom) and read from left to right, column after column, each one being considered as a unit.

4.7. All the relations belonging to the same column exhibit one common feature which it is our task to unravel. For instance, all the events grouped in the first column on the left have something to do with blood relations which are over-emphasized, i.e. are subject to a more intimate treatment than they should be. Let us say, then, that the first column has as its common feature the *overrating of blood relations*. It is obvious that the second column expresses the same thing, but inverted: *underrating of blood relations*. The third column refers to monsters being slain. As to the fourth, a word of clarification is needed. The remarkable connotation of the surnames in Oedipus'

father-line has often been noticed. However, linguists usually disregard it, since to them the only way to define the meaning of a term is to investigate all the contexts in which it appears, and personal names, precisely because they are used as such, are not accompanied by any context. With the method we propose to follow the objection disappears since the myth itself provides its own context. The meaningful fact is no longer to be looked for in the eventual sense of each name, but in the fact that all the names have a common feature: i.e. that they may eventually mean something and that all these hypothetical meanings (which may well remain hypothetical) exhibit a common feature, namely they refer to *difficulties to walk and to behave straight*.

4.8. What is then the relationship between the two columns on the right? Column three refers to monsters. The dragon is a chthonian being which has to be killed in order that mankind be born from the earth; the Sphinx is a monster unwilling to permit men to live. The last unit reproduces the first one which has to do with the *autochthonous origin* of mankind. Since the monsters are overcome by men, we may thus say that the common feature of the third column is *the denial of the autochthonous origin of man*.

4.9. This immediately helps us to understand the meaning of the fourth column. In mythology it is a universal character of men born from the earth that at the moment they emerge from the depth, they either cannot walk or do it clumsily. This is the case of the chthonian beings in the mythology of the Pueblo: Masauwu, who leads the emergence, and the chthonian Shumaikoli are lame ("bleeding-foot," "sore-foot"). The same happens to the Koskimo of the Kwakiutl after they have been swallowed by the chthonian monster, Tsiakish: when they returned to the surface of the earth "they limped forward or tripped sideways." Then the common feature of the fourth column is: *the persistence of the autochthonous origin of man*. It follows that column four is to column three as column one is to column two. The inability to connect two kinds of relationships is overcome (or rather replaced) by the positive statement that contradictory relationships are identical inasmuch as they are both self-contradictory in a similar way. Although this is still a provisional formulation of the structure of mythical thought, it is sufficient at this stage.

4.10. Turning back to the Oedipus myth, we may now see what it means. The myth has to do with the inability, for a culture which holds the belief that mankind is autochthonous (see, for instance, Pausanias, VIII, xxix, 4: vegetals provide a *model* for humans), to find a satisfactory transition between this theory and the knowledge that human beings are actually born from the union of man and woman. Although the problem obviously cannot be solved, the Oedipus myth provides a kind of logical tool which, to phrase it coarsely, replaces the original problem: born from one or born from two? born from different or born from same? By a correlation of this type, the overrating of blood relations is to the underrating of blood relations as the attempt to escape autochthony is to the impossibility to succeed in it. Although experience contradicts theory, social life verifies the cosmology by its similarity of structure. Hence cosmology is true.

4.11.0. Two remarks should be made at this stage.

4.11.1. In order to interpret the myth, we were able to leave aside a point which has until now worried the specialists, namely, that in the earlier (Homeric) versions of the Oedipus myth, some basic elements are lacking, such as Jocasta killing herself and Oedipus piercing his own eyes. These events do not alter the substance of the

myth although they can easily be integrated, the first one as a new case of auto-destruction (column three) while the second is another case of crippledness (column four). At the same time there is something significant in these additions since the shift from foot to head is to be correlated with the shift from: autochthonous origin negated to: self-destruction.

4.11.2. Thus, our method eliminates a problem which has been so far one of the main obstacles to the progress of mythological studies, namely, the quest for the *true* version, or the *earlier* one. On the contrary, we define the myth as consisting of all its versions; to put it otherwise: a myth remains the same as long as it is felt as such. A striking example is offered by the fact that our interpretation may take into account, and is certainly applicable to, the Freudian use of the Oedipus myth. Although the Freudian problem has ceased to be that of autochthony *versus* bisexual reproduction, it is still the problem of understanding how *one* can be born from *two*: how is it that we do not have only one procreator, but a mother plus a father? Therefore, not only Sophocles, but Freud himself, should be included among the recorded versions of the Oedipus myth on a par with earlier or seemingly more "authentic" versions.

5.0. An important consequence follows. If a myth is made up of all its variants, structural analysis should take all of them into account. Thus, after analyzing all the known variants of the Theban version, we should treat the others in the same way: first, the tales about Labdacos' collateral line including Agavé, Pentheus, and Jocasta herself; the Theban variant about Lycos with Amphion and Zetos as the city founders; more remote variants concerning Dionysos (Oedipus' matrilateral cousin), and Athenian legends where Cecrops takes the place of Kadmos, etc. For each of them a similar chart should be drawn, and then compared and reorganized according to the findings: Cecrops killing the serpent with the parallel episode of Kadmos; abandonment of Dionysos with abandonment of Oedipus; "Swollen Foot" with Dionysos *loxias,* i.e. walking obliquely; Europa's quest with Antiope's; the foundation of Thebes by the Spartoi or by the brothers Amphion and Zetos; Zeus kidnapping Europa and Antiope and the same with Semele; the Theban Oedipus and the Argian Perseus, etc. We will then have several two-dimensional charts, each dealing with a variant, to be organized in a three-dimensional order
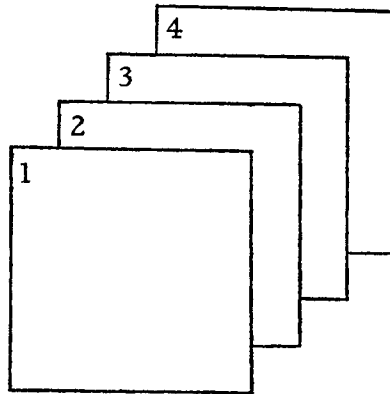

Fig. 1.

so that three different readings become possible: left to right, top to bottom, front to back. All of these charts cannot be expected to be identical; but experience shows that any difference to be observed may be correlated with other differences, so that a logical treatment of the whole will allow simplifications, the final outcome being the structural law of the myth.

5.1. One may object at this point that the task is impossible to perform since we can only work with known versions. Is it not possible that a new version might alter the picture? This is true enough if only one or two versions are available, but the objection becomes theoretical as soon as a reasonably large number has been recorded (a number which experience will progressively tell, at least as an approximation). Let us make this point clear by a comparison. If the furniture of a room and the way it is arranged in the room were known to us only through its reflection in two mirrors placed on opposite walls, we would theoretically dispose of an almost infinite number of mirror-images which would provide us with a complete knowledge. However, should the two mirrors be obliquely set, the number of mirror-images would become very small; nevertheless, four or five such images would very likely give us, if not complete information, at least a sufficient coverage so that we would feel sure that no large piece of furniture is missing in our description.

5.2. On the other hand, it cannot be too strongly emphasized that all available variants should be taken into account. If Freudian comments on the Oedipus complex are a part of the Oedipus myth, then questions such as whether Cushing's version of the Zuni origin myth should be retained or discarded become irrelevant. There is no one true version of which all the others are but copies or distortions. Every version belongs to the myth.

5.3. Finally it can be understood why works on general mythology have given discouraging results. This comes from two reasons. First, comparative mythologists have picked up preferred versions instead of using them all. Second, we have seen that the structural analysis of *one* variant of *one* myth belonging to *one* tribe (in some cases, even *one* village) already requires two dimensions. When we use several variants of the same myth for the same tribe or village, the frame of reference becomes three-dimensional and as soon as we try to enlarge the comparison, the number of dimensions required increases to such an extent that it appears quite impossible to handle them intuitively. The confusions and platitudes which are the outcome of comparative mythology can be explained by the fact that multi-dimensional frames of reference cannot be ignored, or naively replaced by two- or three-dimensional ones. Indeed, progress in comparative mythology depends largely on the cooperation of mathematicians who would undertake to express in symbols multi-dimensional relations which cannot be handled otherwise.

6.0. In order to check this theory,[3] an attempt was made in 1953-54 towards an exhaustive analysis of all the known versions of the Zuni origin and emergence myth: Cushing, 1883 and 1896; Stevenson, 1904; Parsons, 1923; Bunzel, 1932; Benedict, 1934. Furthermore, a preliminary attempt was made at a comparison of the results with similar myths in other Pueblo tribes, Western and Eastern. Finally, a test was undertaken with Plains mythology. In all cases, it was found that the theory was sound, and light was thrown, not only on North American mythology, but also on a previously unnoticed kind of logical operation, or one known only so far in a wholly

different context. The bulk of material which needs to be handled almost at the beginning of the work makes it impossible to enter into details, and we will have to limit ourselves here to a few illustrations.

6.1. An over-simplified chart of the Zuni emergence myth would read as follows:

INCREASE			DEATH
mechanical growth of vegetals (used as ladders)	emergence led by Beloved Twins	sibling incest	gods kill children
food value of wild plants	migration led by the two Newekwe		magical contest with people of the dew (collecting wild food *versus* cultivation)
		sibling sacrificed (to gain victory)	
food value of cultivated plants		sibling adopted (in exchange for corn)	
periodical character of agricultural work			war against Kyanakwe (gardeners *versus* hunters)
hunting	war led by two war-gods		
warfare			salvation of the tribe (center of the world found)
		sibling sacrificed (to avoid flood)	
DEATH			PERMANENCY

6.2. As may be seen from a global inspection of the chart, the basic problem consists in discovering a mediation between life and death. For the Pueblo, the problem is especially difficult since they understand the origin of human life on the model

of vegetal life (emergence from the earth). They share that belief with the ancient Greeks, and it is not without reason that we chose the Oedipus myth as our first example. But in the American case, the highest form of vegetal life is to be found in agriculture which is periodical in nature, i.e. which consists in an alternation between life and death. If this is disregarded, the contradiction surges at another place: agriculture provides food, therefore life; but hunting provides food and is similar to warfare which means death. Hence there are three different ways of handling the problem. In the Cushing version, the difficulty revolves around an opposition between activities yielding an immediate result (collecting wild food) and activities yielding a delayed result—death has to become integrated so that agriculture can exist. Parsons' version goes from hunting to agriculture, while Stevenson's version operates the other way around. It can be shown that all the differences between these versions can be rigorously correlated with these basic structures. For instance:

	CUSHING	PARSONS	STEVENSON
Gods ⎫ ⎬ Kyanakwe ⎭	allied, use fiber strings on their bows (gardeners)	Kyanakwe alone, use fiber string	Gods ⎫ allied, use fiber Men ⎭ string

	VICTORIOUS OVER	VICTORIOUS OVER	VICTORIOUS OVER
Men	alone, use sinew (hunters) (until men shift to fiber)	Gods ⎫ allied, use Men ⎭ sinew string	Kyanakwe alone, use sinew string

Since fiber strings (vegetal) are always superior to sinew strings (animal) and since (to a lesser extent) the gods' alliance is preferable to their antagonism, it follows that in Cushing's version, men begin to be doubly underprivileged (hostile gods, sinew string); in Stevenson, doubly privileged (friendly gods, fiber string); while Parsons' version confronts us with an intermediary situation (friendly gods, but sinew strings since men begin by being hunters). Hence:

	CUSHING	PARSONS	STEVENSON
gods/men	—	+	+
fiber/sinew	—	—	+

6.3. Bunzel's version is from a structural point of view of the same type as Cushing's. However, it differs from both Cushing's and Stevenson's inasmuch as the latter two explain the emergence as a result of man's need to evade his pitiful condition, while Bunzel's version makes it the consequence of a call from the higher powers —hence the inverted sequences of the means resorted to for the emergence: in both Cushing and Stevenson, they go from plants to animals; in Bunzel, from mammals to insects and from insects to plants.

6.4. Among the Western Pueblo the logical approach always remains the same; the starting point and the point of arrival are the simplest ones and ambiguity is met with halfway:
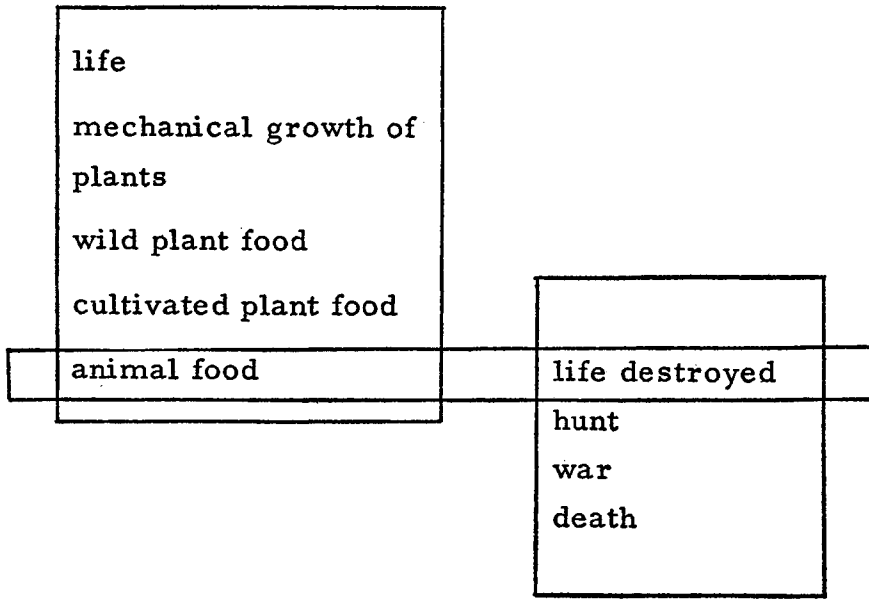
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┌─────────────────────────┐
│ life                    │
│                         │
│ mechanical growth of    │
│ plants                  │
│                         │
│ wild plant food         │
│                      ┌──┴──────────────────────┐
│ cultivated plant food│                         │
┌┴──────────────────────┐ │                      ┌─┴┐
│ animal food           │ │  life destroyed      │  │
└┬──────────────────────┘ │                      └─┬┘
 └───────────────────────┘ │ hunt                   │
                           │ war                    │
                           │ death                  │
                           └────────────────────────┘
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Fig. 2.

The fact that contradiction appears in the middle of the dialectical process has as its result the production of a double series of dioscuric pairs the purpose of which is to operate a mediation between conflicting terms:

1. 3 divine messengers   2 ceremonial clowns   2 war-gods

2. homogeneous pair: siblings (brother   couple (hus-   heterogeneous pair:
   dioscurs (2 brothers) and sister)   band and wife) grandmother/grandchild

which consists in combinatory variants of the same function; (hence the war attribute of the clowns which has given rise to so many queries).

6.5. Some Central and Eastern Pueblos proceed the other way around. They begin by stating the identity of hunting and cultivation (first corn obtained by Game-Father sowing deer-dewclaws), and they try to derive both life and death from that central notion. Then, instead of extreme terms being simple and intermediary ones duplicated as among the Western groups, the extreme terms become duplicated (i.e., the two sisters of the Eastern Pueblo) while a simple mediating term comes to the foreground (for instance, the Poshaiyanne of the Zia), but endowed with equivocal attributes. Hence the attributes of this "messiah" can be deduced from the place it occupies in the time sequence: good when at the beginning (Zuni, Cushing), equivocal in the middle (Central Pueblo), bad at the end (Zia), except in Bunzel where the sequence is reversed as has been shown.

6.6. By using systematically this kind of structural analysis it becomes possible to organize all the known variants of a myth as a series forming a kind of permutation group, the two variants placed at the far-ends being in a symmetrical, though inverted, relationship to each other.

7.0. Our method not only has the advantage of bringing some kind of order to

what was previously chaos; it also enables us to perceive some basic logical processes which are at the root of mythical thought. Three main processes should be distinguished.

7.1.0. The trickster of American mythology has remained so far a problematic figure. Why is it that throughout North America his part is assigned practically everywhere to either coyote or raven? If we keep in mind that mythical thought always works from the awareness of oppositions towards their progressive mediation, the reason for those choices becomes clearer. We need only to assume that two opposite terms with no intermediary always tend to be replaced by two equivalent terms which allow a third one as a mediator; then one of the polar terms and the mediator becomes replaced by a new triad and so on. Thus we have:

INITIAL PAIR	FIRST TRIAD	SECOND TRIAD
Life		
	Agriculture	
		Herbivorous animals
		Carrion-eating animals (raven; coyote)
	Hunt	
		Prey animals
	War	
Death		

With the unformulated argument: carrion-eating animals are like prey animals (they eat animal food), but they are also like food-plant producers (they do not kill what they eat). Or, to put it otherwise, Pueblo style: ravens are to gardens as prey animals are to herbivorous ones. But it is also clear that herbivorous animals may be called first to act as mediators on the assumption that they are like collectors and gatherers (vegetal-food eaters) while they can be used as animal food though not themselves hunters. Thus we may have mediators of the first order, of the second order, and so on, where each term gives birth to the next by a double process of opposition and correlation.

7.1.1. This kind of process can be followed in the mythology of the Plains where we may order the data according to the sequence:

Unsuccessful mediator between earth and sky
(Star husband's wife)

Heterogeneous pair of mediators
(grandmother/grandchild)

Semi-homogeneous pair of mediators
(Lodge-Boy and Thrown-away)

While among the Pueblo we have:

> Successful mediator between earth and sky
> (Poshaiyanki)
>
> Semi-homogeneous pair of mediators
> (Uyuyewi and Matsailema)
>
> Homogeneous pair of mediators
> (the Ahaiyuta)

7.1.2. On the other hand, correlations may appear on a transversal axis; (this is true even on the linguistic level; see the manifold connotation of the root *pose* in Tewa according to Parsons: coyote, mist, scalp, etc.). Coyote is intermediary between herbivorous and carnivorous in the same way as mist between sky and earth; scalp between war and hunt (scalp is war-crop); corn smut between wild plants and culti-vated plants; garments between "nature" and "culture"; refuse between village and outside; ashes between roof and hearth (chimney). This string of mediators, if one may call them so, not only throws light on whole pieces of North American myth-ology—why the Dew-God may be at the same time the Game-Master and the giver of raiments and be personified as an "Ash-Boy"; or why the scalps are mist produc-ing; or why the Game-Mother is associated with corn smut; etc.—but it also probably corresponds to a universal way of organizing daily experience. See, for instance, the French for vegetal smut; *nielle,* from Latin *nebula;* the luck-bringing power attributed to refuse (old shoe) and ashes (kissing chimney-sweepers); and compare the American Ash-Boy cycle with the Indo-European Cinderella: both phallic figures (mediator between male and female); master of the dew and of the game; owners of fine raiments; and social bridges (low class marrying into high class); though impossible to interpret through recent diffusion as has been sometimes contended since Ash-Boy and Cinderella are symmetrical but inverted in every detail (while the borrowed Cinderella tale in America—Zuni Turkey-Girl—is parallel to the prototype):

	EUROPE	AMERICA
Sex	female	male
Family Status	double family	no family
Appearance	pretty girl	ugly boy
Sentimental status	nobody likes her	in hopeless love with girl
Transformation	luxuriously clothed with supernatural help	stripped of ugliness with supernatural help

etc.

7.2.0. Thus, the mediating function of the trickster explains that since its position is halfway between two polar terms he must retain something of that duality, namely an ambiguous and equivocal character. But the trickster figure is not the only con-ceivable form of mediation; some myths seem to devote themselves to the task of

exhausting all the possible solutions to the problem of bridging the gap between *two* and *one*. For instance, a comparison between all the variants of the Zuni emergence myth provides us with a series of mediating devices, each of which creates the next one by a process of opposition and correlation:

$$\text{messiah} > \text{dioscurs} > \text{trickster} > \genfrac{}{}{0pt}{}{\text{bisexual}}{\text{being}} > \genfrac{}{}{0pt}{}{\text{sibling}}{\text{pair}} > \genfrac{}{}{0pt}{}{\text{married}}{\text{couple}} > \genfrac{}{}{0pt}{}{\text{grandmother-}}{\text{grandchild}} > \genfrac{}{}{0pt}{}{\text{4 terms}}{\text{group}} > \text{triad}$$

In Cushing's version, this dialectic is accompanied by a change from the space dimension (mediating between sky and earth) to the time dimension (mediating between summer and winter, i.e., between birth and death). But while the shift is being made from space to time, the final solution (triad) re-introduces space, since a triad consists in a dioscur pair *plus* a messiah simultaneously present; and while the point of departure was ostensibly formulated in terms of a space referent (sky and earth) this was nevertheless implicitly conceived in terms of a time referent (first the messiah calls; *then* the dioscurs descend). Therefore the logic of myth confronts us with a double, reciprocal exchange of functions to which we shall return shortly (7.3.).

7.2.1. Not only can we account for the ambiguous character of the trickster, but we may also understand another property of mythical figures the world over, namely, that the same god may be endowed with contradictory attributes; for instance, he may be *good* and *bad* at the same time. If we compare the variants of the Hopi myth of the origin of Shalako, we may order them so that the following structure becomes apparent:

(Masauwu: x) $\simeq$ (Muyingwu: Masauwu) $\simeq$ (Shalako: Muyingwu) $\simeq$ (y: Masauwu)

where x and y represent arbitrary values corresponding to the fact that in the two "extreme" variants the god Masauwu, while appearing alone instead of associated with another god, as in variant two, or being absent, as in three, still retains intrinsically a relative value. In variant one, Masauwu (alone) is depicted as helpful to mankind (though not as helpful as he could be), and in version four, harmful to mankind (though not as harmful as he could be); whereas in two, Muyingwu is relatively more helpful than Masauwu, and in three, Shalako more helpful than Muyingwu. We find an identical series when ordering the Keresan variants:

(Poshaiyanki: x) $\simeq$ (Lea: Poshaiyanki) $\simeq$ (Poshaiyanki: Tiamoni) $\simeq$ (y: Poshaiyanki)

7.2.2. This logical framework is particularly interesting since sociologists are already acquainted with it on two other levels: first, with the problem of the pecking order among hens; and second, it also corresponds to what this writer has called *general exchange* in the field of kinship. By recognizing it also on the level of mythical thought, we may find ourselves in a better position to appraise its basic importance in sociological studies and to give it a more inclusive theoretical interpretation.

7.3.0. Finally, when we have succeeded in organizing a whole series of variants in a kind of permutation group, we are in a position to formulate the law of that group. Although it is not possible at the present stage to come closer than an approximate formulation which will certainly need to be made more accurate in the future, it seems that every myth (considered as the collection of all its variants) corresponds to a formula of the following type:

$$f_x(a) : f_y(b) \simeq f_x(b) : f_a - 1(y)$$

where, two terms being given as well as two functions of these terms, it is stated that a relation of equivalence still exists between two situations when terms and relations are inverted, under two conditions: 1. that one term be replaced by its contrary; 2. that an inversion be made between the *function* and the *term* value of two elements.

7.3.1. This formula becomes highly significant when we recall that Freud considered that *two traumas* (and not one as it is so commonly said) are necessary in order to give birth to this individual myth in which a neurosis consists. By trying to apply the formula to the analysis of those traumatisms (and assuming that they correspond to conditions 1. and 2. respectively) we should not only be able to improve it, but would find ourselves in the much desired position of developing side by side the sociological and the psychological aspects of the theory; we may also take it to the laboratory and subject it to experimental verification.

8.0. At this point it seems unfortunate that, with the limited means at the disposal of French anthropological research, no further advance can be made. It should be emphasized that the task of analyzing mythological literature, which is extremely bulky, and of breaking it down into its constituent units, requires team work and secretarial help. A variant of average length needs several hundred cards to be properly analyzed. To discover a suitable pattern of rows and columns for those cards, special devices are needed, consisting of vertical boards about two meters long and one and one-half meters high, where cards can be pigeon-holed and moved at will; in order to build up three-dimensional models enabling one to compare the variants, several such boards are necessary, and this in turn requires a spacious workshop, a kind of commodity particularly unavailable in Western Europe nowadays. Furthermore, as soon as the frame of reference becomes multi-dimensional (which occurs at an early stage, as has been shown in 5.3.) the board-system has to be replaced by perforated cards which in turn require I.B.M. equipment, etc. Since there is little hope that such facilities will become available in France in the near future, it is much desired that some American group, better equipped than we are here in Paris, will be induced by this paper to start a project of its own in structural mythology.

8.1.0. Three final remarks may serve as conclusion.

8.1.1. First, the question has often been raised why myths, and more generally oral literature, are so much addicted to duplication, triplication or quadruplication of the same sequence. If our hypotheses are accepted, the answer is obvious: repetition has as its function to make the structure of the myth apparent. For we have seen that the synchro-diachronical structure of the myth permits us to organize it into diachronical sequences (the rows in our tables) which should be read synchronically (the columns). Thus, a myth exhibits a "slated" structure which seeps to the surface, if one may say so, through the repetition process.

8.1.2. However, the slates are not absolutely identical to each other. And since the purpose of myth is to provide a logical model capable of overcoming a contradiction (an impossible achievement if, as it happens, the contradiction is real), a theoretically infinite number of slates will be generated, each one slightly different from the others. Thus, myth grows spiral-wise until the intellectual impulse which has originated it is exhausted. Its growth is a continuous process whereas its structure remains discontinuous. If this is the case we should consider that it closely corresponds, in the realm of the spoken word, to the kind of being a crystal is in the realm of physical matter.

This analogy may help us understand better the relationship of myth on one hand to both *langue* and *parole* on the other.

8.1.3. Prevalent attempts to explain alleged differences between the so-called "primitive" mind and scientific thought have resorted to qualitative differences between the working processes of the mind in both cases while assuming that the objects to which they were applying themselves remained very much the same. If our interpretation is correct, we are led toward a completely different view, namely, that the kind of logic which is used by mythical thought is as rigorous as that of modern science, and that the difference lies not in the quality of the intellectual process, but in the nature of the things to which it is applied. This is well in agreement with the situation known to prevail in the field of technology: what makes a steel ax superior to a stone one is not that the first one is better made than the second. They are equally well made, but steel is a different thing than stone. In the same way we may be able to show that the same logical processes are put to use in myth as in science, and that man has always been thinking equally well; the improvement lies, not in an alleged progress of man's conscience, but in the discovery of new things to which it may apply its unchangeable abilities.

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