Structure and History in the Semiotics of Myth
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The terms *structure* and *history* are currently taken to stand in a disjunctive relation rather than a conjunctive one. That is to say, emphasis on structure, which characterizes a number of disciplines today, implies a synchronic perspective, the apprehension of fixed relations among entities. If there were not stability over a period of time, there could not be the coexistence of units in the determinable relations that constitute a structure. The essence of the historical, or diachronic, perspective is that an entity is not something given once and for all, but rather it is the result of previous development as well as the starting point for subsequent development.

A number of the disciplines in which the synchronic approach currently dominates are ones in which diachronic analysis predominated in the past. This shift in perspective is especially pronounced in linguistic science. Nineteenth-century linguistics was through and through historical in orientation. This was the period in which exact sound laws were established — i.e., regularities in the replacement of particular sounds by other sounds. The systematic comparison of forms allowed the reconstruction of hypothetical protoforms, from which existing forms were said to have developed.

Around the turn of the century linguists became increasingly dissatisfied with a purely historical approach, which was seen as comparable to studying leaves and not the tree itself. In other words, historical study seemed atomistic, failing to grasp the whole that is a given language. Saussure, one of the most influential theorists of the new structuralist approach to language, pointed out that as far as the speaker is concerned, the language exists as a state. 'That is why the linguist who wishes to understand a state must discard all knowledge of everything that pro-

duced it and ignore diachrony. He can enter the minds of speakers only by completely suppressing the past' (1959: 81).

Although the shift from a diachronic to a synchronic — structural — perspective occurred in a number of disciplines, linguistics often served as a model for researchers in other disciplines. Lévi-Strauss, writing in the newly established journal *Word*, refers to this shift and comments that 'a transformation of this magnitude is not limited to a single discipline. Structural linguistics will certainly play the same renovating role with respect to the social sciences that nuclear physics, for example, has played for the physical sciences' (1967: 31). Lévi-Strauss's four-volume *Mythologiques* is an outstanding example of the renovation of mythological studies made possible by the imaginative application of some of the fundamental notions of linguistic structuralism and semiotics.[1]

In recent years a revived interest in historical analysis has become evident in linguistics (see Greenberg 1979). Should this interest take root, it could presage a revitalization of the diachronic perspective in areas where synchrony now predominates. The recent publication of *Structure and History in Greek Mythology and Ritual* by Walter Burkert, Professor of Classics at the University of Zürich, may be one sign of the beginning of a revitalization of the historical approach to myth.[2] Burkert takes note of the fact that history has been ousted from its privileged position in the humanities:

Structural — that is, synchronical — methods have taken over and promise to bring about a real science of the human mind and its creative output. The 'classical' disciplines of philology and history have to stand up to this challenge. ... The thesis of these lectures is ... that even structures of the mind are determined by historical evolution in its largest sense, by tradition formed and transforming within the complicated pattern of life. ... Hence the presumption that the historical perspective will yield more dramatic insight into myths and rituals than mathematical models. (pp. xi–xii)

Burkert does not ignore the structuralist achievements, and he says of his approach that it 'agrees with structuralism in so far as it does not consider any myth in isolation, but tries to establish groups of myths which are identical as to their semantic structure' (p. xii). But he is more sympathetic to the type of structural analysis associated with Propp than that associated with Lévi-Strauss. In this respect Burkert's book complements Kirk (1970), whose earlier Sather Lectures gave ample attention to the work of Lévi-Strauss, but totally neglected the Proppian approach.[3]

Burkert's book will serve as the occasion for a reconsideration of the relation between the synchronic and the diachronic approaches to myth.

As a means to that end, I will discuss: (1) the work of Propp, with concentration on his own conception of the relation between structure and history; (2) the American folklorist Stith Thompson's application of the Finnish historical-geographical method to a cycle of North American Indian tales, generally known as 'The Star Husband'; (3) the work of Lévi-Strauss, with specific reference to his treatment of the Star Husband cycle. These discussions will, hopefully, provide a framework in which Burkert's contribution can be evaluated.

Propp's *Morphology of the Folktale* (1968) has become widely known and appreciated as a masterly application of structural methodology to the folktale. It has been an incredibly seminal work, contributing in no small measure to the current hegemony of the synchronic perspective in the analysis of narrative. Less widely known is Propp's work in historical analysis. His 1946 book *Istoričeskie korni volšebnoj skazki* [The Historical Roots of the Fairy Tale] has yet to be translated into English, French, or German. It is mentioned only in passing by Svatava Prikova-Jakobson in her introduction to the first edition of Propp's *Morphology*; she states that in his later work Propp 'abandons the strict study of form and structure and deals instead with the affinities that exist between the fairy tale and religion (myth and ritual) and social institutions at different levels of their evolution' (Propp 1968: xxi). These same remarks are repeated almost verbatim, though without attribution, by Lévi-Strauss (1960: 122–123) in his critique of the *Morphology*.

Propp, in a reply to Lévi-Strauss he titles 'Study of the folktale: Structure and history', takes exception to Lévi-Strauss's claim that he abandoned morphological analysis. Both of his books, Propp asserts, 'represent, so to speak, two parts or two volumes of a single broad work — the second issues directly from the first; the first is the premise of the second' (1976: 281). He goes on to stress that 'one cannot separate formal inquiry from the historical approach nor oppose one to the other. The opposite is true: formal analysis, the precise, systematic description of the objective material studied, is the condition and the premise of historical research and is at the same time the first step in it' (1976: 282).

Propps' views on historical analysis are not restricted to his later work; a number of relevant remarks are scattered throughout the *Morphology*. In the first chapter, 'On the history of the problem', Propp notes that 'phenomena and objects around us can be studied from the aspect of their composition and structure, or from the aspect of those processes and changes to which they are subject, or from the aspect of their origins' (1968: 4–5). In the case of the folktale, it has primarily been studied genetically; and there have been relatively few attempts at a synchronic

description and classification of the tale. It is Propp's conviction, which he repeats more than once in the introductory chapter, that 'as long as no correct morphological study exists, there can be no correct historical study. If we are incapable of breaking the tale into its components, we will not be able to make a correct comparison' (1968: 15).

Propp's conception of the relation between synchronic and diachronic analysis is in essential agreement with that of proponents of structural analysis of language, who insist that a language exists at any given time as a system and that the system must be described before one can describe any changes it undergoes. However, structural linguists have largely paid only lip service to historical analysis. Once a structural description of a given language state is obtained, there is no strong inclination to compare it with the description of a later state. The description of a given language state thus is an end in itself, and not merely a means to the end of a historical description.

Strictly speaking, no structural description should be carried out solely as an end in itself. Ideally, a description will aim for explanatory adequacy, i.e., support for a theoretical explanation of some phenomenon. In the case of the fairy tale, the problem that many researchers, including Propp, are concerned with is the similarity of tales throughout the world. A historical solution to this problem would be one that demonstrated that similar tales all derive from a common ancestor, i.e., a single tale that originated at a definite time and place and then gradually spread (the theory of monogenesis). However, there is another possible explanation — one that Propp alludes to in the final chapter of the *Morphology*. With reference to his conclusion that all the Russian fairy tales in his corpus are totally uniform in their construction, Propp asks whether or not this indicates that all the tales originated from a single source (1968: 106). The answer to that question, Propp insists, is in the domain of the historian, not the morphologist. But he then adds that the single source need not be geographical; it may be psychological, and he alludes to work of Wundt.

A psychological explanation could be in terms of similarities or identities in the structure of the minds of all human beings. Such a view is compatible with a theory of polygenesis — a given tale could be created at different times and at different places, for humans are everywhere essentially the same, and their mental and psychic makeup has remained essentially unchanged since the emergence of Homo sapiens. Obviously this is a synchronic explanation.

Despite Propp's insistence that the question of sources belongs to the historian and not to the morphologist, he wears both hats to some extent in the *Morphology*; and, in fact, Lévi-Strauss, in his critique, asserts that

'Propp se montre dechiré entre sa vision formaliste, et l'obsession des explications historiques' (1960: 136).

Toward the end of the *Morphology* Propp, in the context of a discussion of the distinction between theme and variant, proposes that

> the entire store of fairy tales ought to be examined as a *chain* of variants. Were we able to unfold the picture of transformations, it would be possible to satisfy ourselves that all of the tales given can be morphologically deduced from the tales about the kidnapping of a princess by a dragon — from that form which we are inclined to consider as basic. ... Tales could be arranged so that a picture of the gradual transition from one theme to another would turn out to be quite clear. (1968: 114)

The above remarks could be taken to call for a type of synchronic analysis. Presentday readers may be especially prone to such an interpretation, in that the term *transformation* may most readily call to mind grammatical rules that serve to interrelate sentence types. For example, the declarative sentence type can be taken as basic, with other types, such as the interrogative, derived from it. In an analysis of this type there is no suggestion whatsoever that the basic form is historically earlier than the derived ones. Nonhistorical criteria such as simplicity of analysis, etc. determine which forms are taken as basic, and hence produced by rules of formation. The output of formation rules serves as the input to the transformation rules.

Propp does not really develop his notion of transformation in the *Morphology*. For an exposition we have to turn to a paper (Propp 1971) originally published in the same year as the *Morphology*. In fact, Propp indicates that the material on transformations originally formed part of the *Morphology* (1968: xxvi). In this paper it is obvious that Propp regards the 'basic form' of the Russian fairy tale — a tale about a dragon kidnapping a princess — as the historically most remote tale, one that takes us back to the very genesis of the fairy tale. And his use of the term *transformation*, like that of *morphology*, derives directly from biology.

Transformationism is the Darwinian doctrine that all existing organic forms are historically connected — they derive from a common genetic root and subsequently became differentiated by transformational processes. The pre-Darwinian explanation for the diversity of forms is creationist — all forms are held to have been spontaneously generated and to have remained unchanged since their creation (cf. Greenberg 1957). Propp makes explicit the Darwinian influence in the opening sentences of his paper: 'The study of the fairy tale may be compared in many respects to that of organic formation in nature. Both the naturalist and the

folklorist deal with species and varieties which are essentially the same. The Darwinian problem of the origin of species arises in folklore as well' (1971: 94).

One of the first steps in undertaking a diachronic transformational analysis is to distinguish between basic and derived forms. (The former are the input to the transformational rules.) Propp lists four criteria for this purpose: (1) A fantastical treatment is older than its rational treatment. (2) Heroic treatment is older than humorous treatment. (3) A form used logically is older than a form used nonsensically. (4) A broadly national form is older than a regional or provincial form.[4]

The determination of the basic forms brings us squarely face to face with the question of the formation of the tales, or their creation out of nontale elements. It is a question of what tales can be reduced to, or the 'ingredients', so to speak, of the tale. Propp has relatively little to say about the process of formation, for his primary concern in the paper is with the processes of transformation the tales undergo. What he does say is that concern for the genesis of the tale necessitates appeal to 'the broad cultural material of the past', specifically archaic religious concepts, as distinct from living religion (1971: 96, 99). Thus, Christian elements in a fairy tale, e.g., an angel as donor, or an act of penance in lieu of a difficult task, are derived, not basic.

Propp urges caution in establishing links between religion and the fairy tale, and he states that such links are probable 'only when we have access to direct cult and *ritual* material' (1971: 97). Propp does not bring such material to bear on the problem of tale formation; instead, he offers only a few scattered remarks about the link between the tale and religion. For example, he notes that 'one may suppose that one of the basic elements of tale composition, i.e., *wandering*, reflects notions about the wandering of souls in the other world' (1968: 107). And with reference to a dragon kidnapping a princess, Propp notes that in Egypt death is conceived of as the abduction of the soul by a dragon (1971: 111).

Another link Propp mentions bears directly on the origin of the *genre* of the fairy tale. He suggests (1971: 97) that the Rig-Veda is one of the sources of the fairy tale; and in a sense fairy tales are more complex than the hymns of the Rig-Veda. Whereas the fairy tale has 151 constituents, the Rig-Veda has about 60, a difference that reflects the fact that the hymn is a lyric, whereas the tale is a narrative: 'If the hymn praises Indra as the serpent-slayer ... the people [shepherds and peasants] were able in one form or another to *narrate* precisely how Indra killed the serpent' (1971: 98).

Let us turn now to the topic that Propp deals with most extensively — that of the transformation of the basic forms. One general character-

ization of all the transformations that Propp posits is that they represent changes wrought in the fairy tale as a response to changes in the external circumstances of the tale. 'The causes of transformations frequently lie outside the fairy tale, and we will not grasp the evolution of the tale unless we consider the environmental circumstances of the fairy tale' (1971: 96). We can sum up Propp's overall position with the statement: religion is implicated in the formation of the fairy tale, everyday reality in its transformation. This is not only a matter of changes in beliefs, but includes influences of neighboring oral traditions, written literature, etc.

Perhaps the most important characteristic of Propp's conception of transformation is that it is said to leave the basic structure, or more exactly the underlying compositional system, of tales unchanged. As Propp states, 'Life cannot destroy the overall structure of the fairy tale, but it does produce a wealth of younger material which replaces the old in a wide variety of ways' (1971: 101). In a footnote to the final chapter of the *Morphology* Propp states that 'everything drawn into a tale from outside is subject to its norms and laws. A devil, on being taken into the tale, is treated either as a villain, a helper, or a donor' (1968: 116).

Villain, helper, and donor are three of the seven narrative roles Propp recognizes as part of the compositional system of the Russian fairy tale. These, it should be emphasized, are relational entities, not physical ones. Roles are filled by individuals, possessing various physical attributes, including names. Individual characters can change without resulting in a change in the narrative roles that are being filled. It is primarily such changes in nomenclature ard attributes of dramatis personae that Propp's transformations describe. However, one of the other major sources of variation recognized by Propp is not excluded — the choice of means through which a function is realized.

Before going on to consider some of the general implications of Propp's conception of transformational analysis, let us examine the particular details of his approach. First, we need to be clear about the nature of the input to the transformational rules — the 'forms' that are operated upon. Although Propp occasionally refers to the archetypal tale (about a dragon kidnapping a princess) as a 'basic form', he primarily intends by the term *form* a specific manifestation of one of the elements of the compositional system. In other words, the dragon fulfilling the role of villain is one form, the act of kidnapping fulfilling the function of Villainy is another form, and so on.

It will be recalled that when Propp hypothesized that the Rig-Veda is a source of the fairy tale, he referred to the fairy tale as having 151 constituents. This may be confusing in that Propp posited only 31 functions in the *Morphology*. Even if we remember to include the scheme

of seven narrative roles, we fall far short of the figure of 151. In the paper on transformations Propp points out that the 31 functions do not exhaust the compositional system; and as evidence he cites the 'motif' *Baba-Jaga gives Ivan a horse*, which Propp claims has four elements: 'Baba-Jaga is a donor, the word "gives" signals the moment of transmittal, Ivan is a recipient, and the horse is the gift' (1971: 95). Propp's wording here is somewhat misleading. The donor is one of the seven narrative roles, but not recipient or gift. However, Ivan is clearly filling the role of hero, and the gift fulfills the role of helper.[5]

To really understand where Propp's figure of 151 comes from, we have to turn back to the *Morphology*, especially Appendix I, 'Materials for a tabulation of the tale', which presents all 151 elements that enter into Propp's transformational analysis. Propp refers to introducing 'into our system those elements which become grouped around the functions' (1968: 88), but this again is an inexact statement. The 31 functions per se (and the seven narrative roles) are not part of the system of 151 elements. This is evident from even a cursory examination of Appendix I, which presents the 151 elements in the form of seven tables with the following headings: 'The initial situation', 'The preparatory section', 'The complication', and so on. The functions constitute subheadings of these tables. Consider, for example, this brief extract from Table III:

46–51. Villainy:
   46. person performing
   47. form of villainy (or designation of lack);
   48. object of the villain's influence (or object of lack);

Note that villainy (function A) is not one of the numbered elements, but 'form of villainy' is (element #47). By this Propp means the particular species of the generic function that occurs in a given tale. In the case of Villainy Propp recognizes eighteen species, or 'forms'. The one listed first (A^1, the villain abducts a person) is considered the basic form (1968: 89). Other forms include seizure of a magical agent, pillage of crops, bodily harm, etc.

The relation between narrative roles and elements such as #47, 'person performing a villainy', is comparable to that between functions and forms of action. What Propp refers to as a special canon of recurrent characters, e.g., the dragon as villain, Ivan as hero, etc., corresponds to the basic forms of the functions. Three subtypes of attributes are associated with characters: external appearance and nomenclature; manner in which the character is introduced into the action; and dwelling place. Each subtype

can correspond to one of the 151 elements in Propp's system for charting changes in the manifestation of the generic tale structure. That is, one element is 'nomenclature of the villain' (#33); another element is 'nomenclature of the hero' (#58); and so on. One element is 'manner of the villain's inclusion into the course of the action' (#34); another is 'manner of inclusion of donor into the tale' (#71); and so on. We can now easily appreciate how 31 functions and seven narrative roles can generate a much larger number of more specific elements.

The way the inventory of 151 elements is utilized in the transformational study of tales is as follows. Each element (or 'form') provides the heading for a table. The entire contents of a given tale can be distributed in a given row, with details from the text entered into the appropriate column. For example, one heading would be 'nomenclature of the villain', and beneath it would be listed the names of the villain in the corpus of tales. Such a tabulation facilitates the formulation of laws governing the replacement of one item by another.

Propp posits three major types of transformation: changes in the base form, substitutions, and assimilations. Many of these can be illustrated with reference to the basic form of element #72, the abode of the donor, viz., Baba-Jaga's hut on chicken legs that rotates and is located in a forest. Consider, for example, the following changes in the base form: reduction (the abode is identified simply as a hut); inversion (instead of being described as closed and inaccessible, the hut is described as having a wide-open door); etc. As for the group of transformations Propp labels 'substitutions', one example would be the replacement of Baba-Jaga's hut by a form of dwelling normal to real life (externally motivated substitution); or by a palace (internally motivated, since the palace is normally the dwelling of the princess). As for assimilations, they are an incomplete suppression of one form by another. The subtypes of assimilation match those of substitution; e.g., an act of externally motivated assimilation affecting Baba-Jaga's hut yields a cave in the woods. The solitude and forest setting of the original element are preserved, but the imaginary hut is replaced by a real-life cave.

One important point to emphasize about Propp's conception of transformations is that each form is assumed to vary independently of all the others (1968: 115). Propp sees this as one significant difference between the fairy tale and organic formations (1971: 95). For example, the dragon can be replaced by the devil in the villain role without thereby entailing a change in the character who fills the role of hero.

Another point to stress is a corollary of Propp's thesis that the locus of change is outside the tale. Propp states that 'these changes are very rarely the product of personal artistic creation. It can be established that the

creator of a tale rarely invents; he receives his material from his surroundings or from current realities and adapts them to a tale' (1968: 113). And one subtype of the substitution transformation is an operation Propp calls 'modification', which is said to be a matter of substitutions resulting from 'the teller's own resourcefulness', hence defying ethnographic or historical specification (1971: 107).

We can summarize Propp's overall conception of changes in tales as follows. They are a matter of external forces impinging on the tale, but not affecting the underlying structure; i.e., the changes do not involve the addition or replacement of functions or of narrative roles. Changes are not, for the most part, the result of conscious intent on the part of the tale tellers. The transformation of one element does not necessarily entail the transformation of any other element within the tale.

There are striking similarities between Propp's conception of changes in the fairy tale and the structural linguist's conception of language change, as first articulated by Saussure. Note first that Propp regards changes as supraindividual in nature — the fairy tale is seen as comparable to a living organism, with an existence apart from that of the individual speakers, a conception not unlike that of Saussure's *langue*. Saussure dichotomized linguistics into the diachronic and the synchronic, for he assumed that 'the factor of time creates difficulties peculiar to linguistics and opens to ... [it] two completely divergent paths' (1959: 79; see also 99–100, 140). Likewise, Propp dichotomizes the study of folktales into the synchronic — the 'morphological' analysis — and the diachronic — the 'transformational' analysis. The former deals with the underlying constants all tales share, the latter with an agglomeration of variable detail that is regarded as outside the compositional system.

Note, however, that to assert that there is a dichotomy in Propp's methodology is not to contradict or undermine the earlier assertion that the two types of inquiry are interrelated, with the morphological analysis being a prerequisite for the transformational analysis. To see how the system of narrative roles and functions is important in the transformational study, consider the problem of establishing a transformational relation between two given characters, 'A' and 'B'. To assert that character 'A' in one tale is replaced by 'B' in another, we need some way of establishing that 'A' and 'B' are comparable characters — the 'same' character, if you will, in different guises. Comparability cannot be based on external similarity, even on the recurrence of the same name, or other attributes, due to the possibility of internal substitutions and assimilations. For example, the princess, who usually plays the role of the sought-after person, may in some tales play the role of donor. Thus a princess may occur in two different tales, but in one she is a trans-

formation of an old woman, the usual performer of the donor role.

Although there may be difficulties in matters of detail, it seems that in principle Propp's functional analysis is indeed a necessary preliminary to his transformational analysis. This does not, however, exempt Propp's approach from questions of its validity, nor does it ultimately justify the dichotomy he establishes between the study of functions (from a synchronic perspective) and the study of characters and their attributes (from a diachronic perspective). There are at least two possible alternatives to Propp's position on this matter. One is that the study of attributes should be assimilated into the structure of the tale, i.e., be a matter of pure synchrony. Another is that the diachronic approach should encompass the functions and narrative roles as well as the attributes of the characters.

Note that, strictly speaking, Propp does touch on the matter of changes in the underlying structure of tales — but he refers to these as 'corruptions'. One type results from the assimilation of foreign elements into the tale, as well as whole genres: 'Highly complicated conglomerates are then sometimes formed, into which the components of our scheme enter as episodes' (1968: 100). Propp notes that the Russian tales 'began to be collected in an era when they had already begun to disintegrate. There are no new formations at present' (1968: 114). However, Propp's corpus of tales was drawn from Afanas'ev's collection, which Propp says consists largely of 'absolutely authentic' — i.e., 'uncorrupted' — tales (1968: 100).

Propp asserts that 'uncorrupted tale construction is peculiar only to the peasantry — to a peasantry, moreover, little touched by civilization' (1968: 100). This remark reflects what is known as the devolutionary view of folklore — folklore as survivals from man's spiritual past. The devolutionary view of folklore is the obverse of the evolutionary view applied to man and his culture, which was particularly widespread in the nineteenth century; man's social organization was held to have evolved through the three stages of savagery, barbarism, and civilization. Man everywhere is assumed to have passed through these stages, but at different rates, so that within a civilization there may be pockets reflecting an earlier stage. Myths and folktales were regarded as remnants or survivals from man's earlier stages, prior to his attaining true civilization.

Note that this devolutionary view partly serves to make plausible one particular claim Propp makes about his transformational analysis of tales. We saw earlier that Propp initially makes a distinction between basic and derived forms, with the former being the input to the transformational rules. However, Propp makes the further claim that all the derived forms can be chronologically ordered; that is, that a historically earlier derived form is the input to a transformational rule, with its output being a historically later derived form. The basic forms, then, are those that serve

only as input to transformational rules, without being the output of previously applied transformational rules. This claim is implicit in these remarks:

> Tales could be arranged so that a picture of the gradual transition from one theme to another would turn out to be quite clear. Of course, certain jumps and gaps would result here and there. ... The contemporary absence of certain forms will not contradict the over-all theory if one realizes that those centuries in which the tale led an intense existence are irretrievably lost to science. Just as we conjecture on the basis of general astronomical laws about the existence of those stars which we cannot see, it is also possible to assume the existence of tales which have not been collected. (1968: 114)

What Propp is alluding to here is a principle generally applied to synchronic — structural — description. If one apprehends systematic relationships, it is possible to complete the pattern if there are a few gaps. If, however, one accepts the Saussurian tenet that diachronic facts are independent events, then no such pattern pressure can be utilized in diachronic analysis. Nevertheless, Saussure himself applied similar reasoning in his historical study, the *Mémoire sur le système primitif des voyelles en indo-européen* (1878), in which he proposed a structural demonstration for the existence of two phonemes in the proto Indo-European vowel system that had no reflex in historical languages (see Watkins 1973: 103).

Propp, in the remarks just quoted, is referring, not to the protoform of Russian fairy tales, but to so-called 'missing links' between the protoform and current tales. If it is the case that in an oral culture everday life produces 'a wealth of younger material which replaces the old in a wide variety of ways' (1971: 101), then we might not necessarily expect there to be any traces of that older material. Or, if such older material survived, we might expect traces in all currently existing tales.

Propp's basic assumption that all Russian fairy tales can be traced back to one single tale seems especially debatable. Why should the narrative impetus originally give rise to only one tale (about a dragon kidnapping a princess), with other tales only gradually arising as external circumstances changed? Is it not more plausible to assume that from the earliest point in time there was a wide variety of different tales, just as there exists in the Afanas'ev collection, and that as external circumstances changed, all tales changed somewhat? However, insofar as some segments of society are less touched by change than other segments, and environmental changes are not everywhere the same, we would expect the gradual emergence of diverse versions of one and the same tale.

There is such regional variation in language, and the methods of linguistic geography were developed to analyze it. Correlative with linguistic geography is a conception of language, not as a supraindividual entity, but as a purposeful activity of individuals having no real existence apart from their use and knowledge of it.

Comparable techniques of geographic study were also developed for the historical study of folklore by the Finnish folklorist Kaarle Krohn. He evolved the method to meet the demands of a study of oral tales, which he assumed required methods different from those applicable to written texts. For him, the permanence of writing meant that two related texts, widely separated in space and time, could be compared without taking into account either the historical events or the geographic and political boundaries that separated them. In the case of oral tales, however (barring polygenesis), there has to be a continuous line connecting the 'same' tale. Divergencies among versions are traces or imprints of the oral transmission process over space and time.

The Finnish method deals with groups of tale variants that are transparently similar, without having to have recourse to special analysis. The aim of the method, in a nutshell, is to systematize the differences among the variants and to draw historical conclusions from the geographic distribution of these differences, which are carefully noted on a series of maps. One part of the method is to reconstruct the original version, or archetype, and to trace its transmission over space and time. To apply this method, one must have access to a living oral tradition or at least have information about when and where each of a large set of variants was recorded.

Propp could not have carried out such a historical-geographic study, since he lacked the requisite contextual information (see Propp 1968: 119). However, even if he had had such information, his approach would still present some differences with the Finnish school. For example, Propp insisted that the constituent parts of tales should be examined independently of each other, whereas the Finnish school 'still considers it necessary to study the fairy tale in terms of entire structures rather than in terms of constituents' (Propp 1971: 95). A consideration of the Finnish approach will thus provide us with a different perspective on the problem of structure and history in myth analysis. For an example of this approach, we will turn now to the analysis the American folklorist Stith Thompson has carried out on a corpus of North American Indian tales, known as the 'Star Husband'.

Thompson's corpus consists of 86 variants or versions of the Star Husband tale, which is found scattered over a large portion of North

America north of Mexico. These have been collected by various folklorists at various times. Thompson provides brief synopses, usually no longer than about six sentences, of each of these. He also indicates the published source of each tale.

Thompson's synopses actually reflect one stage in his method, the first step of which is to break each tale version down into parts. These parts are the loci of variation among the versions. The Star Husband tales show variation at some 14 different points, hence they are analyzed into 14 constituents or 'traits'. Thompson's synopses specify the values of the traits for each version. Not all 14 traits occur in every version, and sometimes a given version will have two or more values for a given trait. Note also that there is not necessarily a one–one correlation between trait and sentence of the synopsis; sometimes a given sentence will specify the values of three or more traits, and occasionally a sentence will be included that serves only to provide a transition between sentences specifying values of traits. Here, as an example, is Thompson's synopsis of a tale originally collected by Boas:

Two sisters (A2) sleeping out (C1) wish to be married to two stars (B1). They find themselves next morning (D2) in the upper world married to two stars (E3), one with a white blanket (white star) and one with a red (red star) (F5). The husbands are hunters (F10). The girls eventually become homesick and through a hole in the sky which they find (I1) they descend on a skin rope (K3a). They lodge in a treetop (L1). Sequel: trickster animals under tree: fisher duped (N2). (1965: 421)

The capital letters refer to the traits, and the following number specifies the particular value of that trait in the given version. Thus, 'A' is the trait 'number of women', of which there are five values: one; two; two at beginning of the tale, then one; three; and five. 'B' is introductory action, and its values include: the wish for a star husband; the pursuit of a porcupine; and some rarely occurring miscellaneous acts, such as the girls' being carried to the sky world by supernatural beings. A complete specification of the various values of the traits can be found in that section of Thompson's study headed 'Analysis of the principal traits' (1965: 435–448).

After each version is broken down into parts that vary, the method proceeds as follows:

They are examined in a strictly determined geographical order for each plot element and a table is prepared to show the results. Every variation in treatment is thus noted and brought into easy comparison with all other variations. Totals are kept for each of the possible treatments, so that it is possible at a glance to see (1) how general or how exceptional it is in the light of the whole tradition and (2) just what is its geographic distribution. (1965: 419)

Thompson points out that the successful use of the method requires a large enough number of versions to give the findings statistical validity (though the only statistical analysis Thompson presents is simple percentages).

Thompson proceeds through the inventory of 14 traits, noting the range of values they assume in the variants, along with their frequency of occurrence and geographic distribution. For example, in the case of trait A, the number of women, Thompson's study revealed that in 69 of the 86 versions, two women are involved, either at the beginning or throughout the story. These 69 versions are spread over the whole area of distribution of the Star Husband tale. In the case of trait B, introductory action, the wish for a star husband occurs 62 times, over the complete area of distribution. After working through each trait in such a fashion, Thompson is able to posit the basic form of the tale, which is a sort of statistical reconstruction:

Two girls (65%) sleeping out (85%) make wishes for stars as husbands (90%). They are taken to the sky in their sleep (82%) and find themselves married to stars (87%), a young man and an old, corresponding to the brilliance or size of the stars (55%). The women disregard the warning not to dig (90%) and accidentally open up a hole in the sky (76%). Unaided (52%) they descend on a rope (88%) and arrive home safely (76%). (1965: 449)

Thompson does not immediately affirm that this archetype is indeed the original form, and ultimate source, of all the extant versions. He first attempts to verify that there exist some actual versions that correspond to the archetype and, furthermore, that they are found over the entire area of distribution of the tale. Since both criteria are met, Thompson feels warranted in regarding the reconstruction as the basic form of the story. Part of the rationale is that it is improbable that a given trait could belong to the original form of the story and be found in just one restricted geographic area; this would imply that the same one trait had been consistently forgotten everywhere else.

Given the reconstruction of the original form of the tale, can any conclusions be drawn about where it originated? The most probable location is near the center of its present area of distribution, i.e., the Central Plains. Thompson's reasoning is that there is little variation among those variants, whereas the variants found, say, on the Pacific Coast 'show a good deal of variation as if they represent traditions received from outside at sundry times from a common original' (1965: 455). As for the age of the tale, this again cannot be determined with any definiteness. But based on the dates on which the versions were recorded,

Thompson suggests that the tale in its basic form dates from the eighteenth century.

What about the other variants of the tale that do not correspond to the archetype? In some cases, where certain traits occur only very rarely and sporadically, Thompson suggests that their presence is a sign of confusion or oversight, or of a special interest on the part of the particular narrator; hence they are not regarded as representing a true tradition (1965: 436). In other instances, certain infrequent traits consistently occur together and in a restricted geographic distribution, indicating a special type of the tale. For example, there are a small number of versions involving just one woman, occurring in a small area — the Plains — surrounded by the basic version. Associated with this trait is one particular value of trait B, in which the introductory action is the woman's pursuit of a porcupine into the upper world. The porcupine becomes a celestial object (moon, sun, or star), in the form of a young man. The girl marries him and bears him a son. Thompson classifies these versions as a special type, which he labels the 'porcupine redaction'. This type is designated 'Type II', with the archetype being Type I.

In addition to the basic form of the porcupine type, there occur certain elaborations of it with an even more restricted geographic distribution. Among the Gros Ventre, Hidatsa, Crow, and Arapaho the story begins with a dispute between the sun and moon as to the relative value of earth women and water women. The moon chooses the earth woman and appears on earth as a porcupine. A special feature of all the Crow and Hidatsa tales that sets them apart from the others in this subgroup is that the woman's son is warned against shooting meadow larks.

Thompson recognizes four additional subtypes, but only one is of major importance. It consists of the basic type, followed by the sequel involving trickster animals under the tree: when the two women escape from the upper world, they do not reach the ground but become lodged in the top of a tree. Various animals pass by and the girls appeal to them for aid in getting down. This type (III) developed on Canadian soil, and its geographic distribution forms a crescent, stretching from southern Alaska to Nova Scotia. It apparently was spread from the center of this region by wandering tribes such as the Cree.

It seems a strange decision on Thompson's part to regard a tale with multiple parts as a type distinct from a tale lacking one or more of these episodes. *Episode*, incidentally, is preferable to Thompson's term *sequel*, which is usually applied to published works and denotes a separate work that takes up the narrative at the point where it left off in an earlier work. Another term that is the equivalent of Thompson's *sequel* is Propp's *move*. Propp recognized the existence of multimove tales that clearly constitute

one single tale. In fact, Propp's archetypal tale consists of two moves, the first of which involves a fight (struggle with villain), the second a difficult task the hero must accomplish. Propp notes that 'each move may exist separately, but only a combination of the two moves produces an entirely complete tale' (1968: 103). Consider, for example, the version of Star Husband collected by Boas (in Coffin 1961: 89–92). In Thompson's classification it is Type III — it consists of the basic tale plus the 'sequel' involving the tricksters under the tree. Boas presented this as one single tale, and clearly it is a unified tale; the 'sequel', in fact, is longer than the 'basic tale' proper.

A number of other questions about particular details of Thompson's analysis can be raised. Some of the traits that Thompson indicates as occurring only in Type II actually occur in some Type I versions; e.g., Thompson's variant #29, which he classifies as Type I, has the birth of a son (G1), descent by sinew rope (K3b), and death of woman and son (L3) — values of traits that Thompson regards as characteristic of Type II. The only difference is that variant #29 does not have any reference to porcupines — and there is no occurrence of the Star Boy sequel, which is associated with Type II. Note that, strictly speaking, trait L has as its value the woman's being killed but the son saved. Thompson's catalog of values does not recognize as a possibility the death of both woman and son. Obviously if the son is killed, that precludes the possibility of the Star Boy episode occurring.

Thompson himself admits that 'within the porcupine husband redaction are a number of versions where a certain connection with the basic type is retained, even though it is useless for the redaction' (1965: 452). And in the case of the porcupine redaction (II), there are some variants with plot events that set them apart from the other Type II tales, but that Thompson does not include in his inventory of traits. One is the charcoal chewing contest that occurs ,as part of the sun and moon dispute. Thompson says of this that it 'hardly helps the story' (1965: 452). And with regard to those Type II tales that include the warning against shooting meadow larks, Thompson says that 'nothing is made of this point later in the tale and it seems to be put in merely to take care of the son in an appropriate way' (1965: 452). As we will shortly see, Lévi-Strauss finds much more of significance about these details, which in his analysis are structurally integrated into the tale.

The major criticism to be made of Thompson's study is that he did not first undertake a detailed analysis of the composition of the tales in his corpus. Propp, in contrast, did first examine the tales of his corpus, without regard either for their history or for the specific requirements of historical analysis. Thompson's traits, despite some superficial similarities

with Propp's functions, do not constitute a full-fledged inventory of compositional units.

A careful examination of Thompson's 14 traits reveals that they are rather heterogeneous in comparison to Propp's functions and his system of 151 elements. We can find traits that correspond to Proppian functions, as well as traits that pertain to the dramatis personae — their identity, physical attributes, etc. Obviously traits A (number of women), E (identity of husband), and F (distinctive qualities of husband) pertain to the actors who carry out the actions of the tale. As for traits that correspond to Propp's functions, we cannot make any definite identifications without first carrying out a detailed functional analysis of the Star Husband tale. But it would appear that trait B (at least in its most frequent value, the wish for a star husband) corresponds to Propp's function a, Lack, one species of which is lack of a bride. Trait C (circumstances of the introductory action) would seem to correspond to Propp's element alpha (α), the initial situation.

Trait H (taboo broken in upper world) corresponds, in content at least, to Propp's function delta (δ), violation of interdiction. But the two cannot be regarded as identical functions since the consequence of each differs. The violation in the Russian fairy tale is part of the preparatory section, creating the possibility for an act of villainy, which marks the beginning proper of the plot development. In the Star Husband the tale gets under way with a lack, a morphological variant of villainy; and the violation of the taboo motivates the opening of a skyhole, which in turn makes possible the women's descent to earth. Thompson does not posit descent as a trait, but he does recognize assistance in descent (trait J) and means of descent (trait K).

Trait J specifies the characters who fill the role of helper. However, Thompson's helper should perhaps be identified with Propp's donor role, especially in those instances in which the person assisting in descent does so by helping to make a rope. In Russian fairy tales the donor provides a magical agent (inanimate helper) that serves to transport the hero to a different kingdom, where his object of search is located. 'This kingdom may lie far away horizontally, or else very high up or deep down vertically' (Propp 1968: 50).

Strictly speaking, in the Star Husband tales the descent corresponds — functionally — to Propp's function Return, and not Departure. Propp does not analyze in detail the return, simply noting that in most cases it has the same forms as an arrival (1968: 56). In the Star Husband, in contrast, the initial departure is not narrated in great detail, whereas the descent — the return from the upper abode — is. For example, in a Star Husband variant recorded by Boas, the initial departure of the women is

narrated in this one sentence: 'They [two stars] removed them [two sisters] from the house into the sky' (Coffin 1961: 89).

To sum up, we can see that Thompson's analysis of his corpus into traits leaves too many questions unanswered about the structure of the tales. His study suffers from this lack of a preliminary synchronic analysis. To criticize Thompson for not following a basic methodological principle of Propp's is not beside the point. There are a number of respects in which their approaches are similar. The following statement by Thompson echoes similar remarks by Propp: the plot outline of the Star Husband versions 'seems little influenced by the activities of the individual raconteurs. The best of them preserve the tradition most faithfully and seem merely to elaborate certain details but not to change anything basically' (1965: 458–459). Note also that Thompson hypothesizes that all other versions are derived from his proposed archetype by 'some individual or group changes ... either (1) the simple addition of an item or (2) a single change which necessitates several other changes to bring about consistency' (1965: 449–450). However, Thompson makes no attempt to systematically describe these changes, i.e., he makes no attempt to formulate general transformational laws.

In the conclusion to his study Thompson says that 'it has by means of its analytical method shown how a tale like the Star Husband when once invented adapts itself to new conditions and takes on new forms, but in spite of time and distance maintains its basic pattern' (1965: 459). It cannot be said, however, that he has actually proposed how or why the basic tale changes — he has not specified the nature of 'new conditions'. Propp, in contrast, specified such relevant conditions, e.g., the influence of current religious beliefs.

We have so far considered two different, but not totally distinct, approaches to the historical analysis of myth and tales. Let us turn now to the work of Lévi-Strauss, which offers a purely synchronic approach to myth analysis.

A direct comparison between Lévi-Strauss's synchronic approach and Thompson's historical approach is possible because Lévi-Strauss, in his *Origin of Table Manners*, discusses Thompson's work and offers his own alternative analysis of the Star Husband cycle.

The fact that an analysis of North American myths is found in the middle of Lévi-Strauss's book on South American mythology reflects Lévi-Strauss's view that there exists a vast mythological system common to South and North America.[6] This system is said to be closed, which implies that 'we inevitably meet up again with the myths which were studied at the beginning of the inquiry' (Lévi-Strauss 1978: 15). Hence it is immaterial

which myth one takes as the point of departure for study. Thus, while Lévi-Strauss, like Propp, proposes transformational relationships among myths, his transformations are reversible (as are mathematical operations) rather than irreversible (as are Propp's temporal relations).

We are not concerned here with the relations Lévi-Strauss posits as holding between North and South American myths; instead, we are particularly interested only in what he has to say about the Star Husband cycle and about the Finnish method, as applied by Thompson to that corpus.

Of the Finnish method in general, Lévi-Strauss has this to say: 'In so far as it sets out to ascertain facts, this method is not open to criticism, since no analysis, structuralist or otherwise, is possible without a thorough preliminary knowledge of all the available data' (1978: 227). But one problem that Lévi-Strauss perceives is that of what constitutes a fact in folklore. In effect the Finnish practitioners, he asserts, have a positivistic conception of fact — variants are regarded as differing from each other 'in the manner of material objects, whose unequal extensions in space and time are simply to be recorded' (1978: 233). Facts, for Lévi-Strauss, consist not of things but of relations; and he quotes at one point Saussure's dictum that relations between things exist before the things themselves and help to determine them (1978: 264). In this same context Lévi-Strauss notes that

> in an area where the exponents of the historical method try to discover contingent links and traces of a diachronic evolution, I have uncovered an intelligible synchronic system. Where they itemize terms, I focus on relations. Where they put together unrecognizable fragments or haphazard assemblages, I have pointed out significant contrasts. (1978: 263–264)

The contrast Lévi-Strauss is drawing here between his synchronic approach and the diachronic approach is strictly parallel to the distinction Saussure drew between synchronic and diachronic linguistics. Saussure stressed that diachronic facts do not aim at signaling a value by means of another sign; for example, it is a diachronic fact that the form *gasti* was replaced by *Gäste*. These are plural forms, but plurality is not expressed by *Gäste* alone, but by the opposition *Gast:Gäste*, that is, by a relation between two coexisting terms of the language (Saussure 1959: 84–85).

As applied to myths, the 'significant contrasts' can be between, say, characters in a myth, or even between whole myths, that serve to communicate a symbolic significance. In the context of Saussure's distinction between the synchronic and the diachronic, it can be appreciated why Lévi-Strauss rejects Propp's position that constituents of a tale

can vary independently of all others. Such isolated changes would disrupt the system of values, which like linguistic values are determined only by the momentary arrangement of the terms — the symbolic significance of terms is arbitrary, not a matter of intrinsic properties.

As an example of Lévi-Strauss's attempt to demonstrate that the types of the Star Husband tale can be integrated into a single coherent system, let us consider the oppositional and correlational relations that he posits between two episodes occurring in two widely separated types, between which Thompson established only relations of historical derivation. One episode occurs in variants of Type II, the porcupine redaction containing the warning against shooting meadow larks. The other occurs in certain variants of Type III containing the warning about the squirrels and chickadee. The meadow lark versions occur among the Crow and the Hidatsa (western Siouan tribes of the Central Plains). The squirrel-chickadee versions occur among the Micmac and Passamaquoddy (eastern Algonquin tribes, located in the northeast, around Nova Scotia).

Lévi-Strauss characterizes the relation between the two episodes as one of inverted symmetry. In the Crow and Hidatsa myths the prohibition is addressed to the son of the star wife. Its aim is to prevent him from *hearing* what the meadow lark says to him — the *message* that he is of terrestrial origin, which would have the consequence of making him want to return to earth. As for the warning about the squirrels and chickadee, it is addressed to two girls (instead of a boy); its aim is to assist them in returning to earth: they are granted the favor of a magical descent, on the understanding that they will close their eyes during the descent and not open them until after hearing in turn the cry of the black-headed chickadee and that of the red squirrel and striped squirrel. Here the cries are not a message, but a signal (of relative location).

The cries of the three animals, in the Algonquin versions, signal three stages of the descent to earth: the chickadee, a bird, signals a high distance from the earth; the red squirrel, a tree-dwelling animal, signals a medium distance; and the striped squirrel, a ground-dwelling animal, signals a low distance. This triad of animals is thus opposed to the single animal occurring in the Plains tales, the meadow lark, which represents both sky and earth: it is a flying bird, but it lives near the ground, where it searches for food, and it sleeps on the ground (1978: 237).

Lévi-Strauss points out that the same relationship of inverted symmetry that holds between the Crow-Hidatsa versions, on the one hand, and the Micmac-Passamaquoddy ones on the other, also holds between the initial situation of the basic version (Type I) and those Type II Plains versions beginning with the quarrel between the sun and the moon (1978: 239). In the Type I versions two terrestrial women discuss the respective merits of

celestial males; in the Type II versions, two celestial males discuss the respective merits of terrestrial women. In both cases, one character is older, and more foolish, than the other. And the foolish character makes a bad choice.

Lévi-Strauss also demonstrates that the Plains porcupine redaction has an inverted reflection in the (Type III) Algonquin series of myths; and he specifically cites, in this connection, an Ojibwa myth: Two sisters, on a hunting expedition, encounter a porcupine. One sister admires its quills, and the animal invites her to sit down on the tree stump in which he lives. She does so, and the porcupine plunges his quills into her buttocks. The myth continues with essentially those episodes that constitute Type III — though in reverse order. Thus, after the porcupine escapade the girls become wedged in a nest at the top of a tree; several trickster animals pass by and offer to help; they flee a trickster by ascending into the sky, where they discuss which star would make the best husband. Table 1 shows the inversions Lévi-Strauss notes as existing between the Ojibwa myth and the porcupine redaction.

TABLE 1.

Porcupine Redaction (Type II)	Ojibwa (Type III)
upright tree	tree lying flat
porcupine outside tree	porcupine inside tree
sensible girl	foolish girl
girl rises up toward porcupine	girl crouches down over porcupine
porcupine is seductive and	porcupine is aggressive and
deflowers girl from front	lacerates the girl from behind

The above extracts from Lévi-Strauss's complicated analyses should suffice to give some general idea of the synchronic approach he offers as an alternative to Thompson's diachronic/geographic one. I have presented some of Lévi-Strauss's conclusions, but without presenting his evidence. Much of the evidence consists of analyses that establish the symbolic significance of the dramatis personae; e.g., the porcupine as a symbol of winter periodicity. The evidence often comes from parts of myths other than the ones between which Lévi-Strauss is attempting to establish correlational and oppositional relations.

The question still remains as to Lévi-Strauss's attitude toward historical inquiry in general. After expounding the synchronic relations between the Star Husband versions, Lévi-Strauss concedes that it is impossible to evade the historical problem: 'But myths, no more than living beings, did not belong from the start to a finished system; the system has an origin, into which we can and should enquire' (1978: 264). One particular

question he considers concerns the external circumstances that might account for the fact that the porcupine redaction constitutes a mythic subsystem in an oppositional relationship to the subsystem constituted by what Lévi-Strauss calls the grebe redaction — certain versions of Thompson's Type III in which the two girls, after their escape from tricksters who rescue them from the tree, encounter a grebe (another trickster), who passes himself off as a loon known as 'Arrayed-in-Wampum'. The porcupine, who is master of ice and cold, is in opposition to the grebe, who is the master of thaw and the rewarming of the earth. The porcupine, in addition to its natural function as master of winter, also has a cultural function as supplier of quills, which are used in making embroidery having symbolic significance. The grebe has only a natural function.

Lévi-Strauss can find no simple, consistent difference in geography, social organization, etc. that could account for the differences in mythic subsystems. The one difference he finds is that the boundary defining the habitat of the porcupine approximately corresponds to the geographic distribution of the tribes in which the two subsystems occur. The porcupine is rare, if not absent, from the Plains area in which the porcupine redaction occurs. Yet it is these Plains people who carried the art of quillwork to its highest point of perfection. Lévi-Strauss speculates that 'if, as seems the case, the Plains Algonquin and their Siouan neighbors came from the northeast where the porcupine was to be found, they may well, on losing the real animal, have reversed a mythological system which was originally very close to the one retained by the Ojibwa' (1978: 270). The reversals would be a matter of changes of such details as low to high, horizontal to vertical, etc. These are comparable to changes of the sign of variables when they are transferred from one side of an algebraic equation to another.

The essence of Lévi-Strauss's position, with regard especially to the relation of synchronic to diachronic, is well expressed in the following long quotation:

To understand the origin of the porcupine redaction, I do not fall back on historical contingencies or on the improvisatory talent of some story-teller. The star husband myth ... is not to be reduced to a mere list of recorded types; it anticipates them all in the form of a network of relations which is operative, and through whose functioning the types are created. The fact that some appear simultaneously and others at different periods presents problems the interest of which I do not underestimate. It must, however, be conceded that certain types, the concrete emergence of which seems to occur very late, cannot have sprung from nothing and did not emerge under the influence of purely historical factors or in response to external promptings. It would seem rather that they allow certain

possibilities inherent in the system to be brought into actual existence and, in this sense, they are as old as the system is. I do not mean that the porcupine redaction already existed somewhere, and in this form, before the Arapaho and their neighbors adopted it. Such a hypothesis is by no means impossible, but even if the ancestors of present-day story-tellers imagined they were inventing it ... , the new version had to respect the already existing constraints and guide-lines which limited the freedom of the narrative. (1978: 272)

It may seem that Lévi-Strauss ultimately begs the question of origins, but it is important to specify exactly what is being asked. If the question concerns specifically the porcupine redaction, then Lévi-Strauss provides two answers, one structural and one historical. The structural origin is the more general mythic system of which the porcupine redaction is a subsystem. The historical origin is a matter of contingent external circumstances, such as the migration of certain tribes to territories outside the habitat of the porcupine. Admittedly these explanations of origin do leave unanswered the question of the origin of the global mythic system itself.[7] Lévi-Strauss would presumably regard it as a product of an innate semiotic facility of the human mind.

Lévi-Strauss, in the view of Piaget, is the very incarnation of the structuralist faith in the permanence of human nature and the pre-formation of structures. But Piaget, who sees the issue of formation as the central problem of structuralism, has claimed that even with an appeal to biological innateness, the question of the genesis or formation of structures remains (Piaget 1971: 9, 89). Although the usual alternative to preformation is contingent creation (a matter of cultural learning), Piaget argues for a third alternative, which he terms *constructivism*, the process of internal equilibration.

Piaget is famous for his study of the development of cognition in children, so when he refers to the process of formation of structures, one may be inclined to interpret his remarks in only an ontogenetic sense. However, a section of his *Structuralism* is devoted to 'Organic structures' (1971: 44–51). There he briefly discusses the work of Waddington and his notion of homeorhesis. Waddington postulates a cybernetic loop between the organism and its environment. 'What this means', says Piaget, 'is that the notion of structure as a self-regulating system should be carried beyond the individual organism, beyond even the population, to encompass the complex of milieu, phenotype, and genetic pool .... These advances in contemporary biology are all the more valuable to structuralism because, joined to ethology ... , they furnish the basis for psychogenetic structuralism.' (1971: 50)

Although he cannot be said to espouse psychogenetic structuralism,

Walter Burkert's historical approach to myth and ritual, as exemplified in his *Structure and History in Greek Mythology and Ritual*, is marked by an appeal to biology, and to ethology in particular. We will focus on that aspect of his book since it is one of its distinctive features. This approach leads Burkert to push historical inquiry much further back in time than any of the other scholars we have considered here.

Burkert has not written a theoretical book, but he does present some general remarks on theory and methodology in the first two chapters, where he sets forth his conception of the historical investigation of myth and ritual. We will first examine his general approach, before turning to his concrete analyses.

Burkert sees his approach as firmly based on the notion of myth as 'a form of tradition stemming from the depth of the past' (p. xi). He asserts that 'tradition is history, and the traditional tale cannot be exempt from it' (p. 27). It may be objected that insofar as tradition implies a lack of change — a continuation into the present of what was thought and done in the past — then tradition and history are antithetical. However, any oral tale, to survive across generations, must be transmitted; and changes are inevitably introduced during the process of transmission.

Burkert, like other researchers, recognizes that the tale is both mutable and immutable. The basic sequence of plot units (which Burkert terms *motifemes*) is immutable. The mutability of myth is due to the processes of *application* and *crystallization*. By the former is meant the adaptation and reinterpretation of myths in new situations or circumstances — what is sometimes referred to as *pragmatic creativity*. Crystallization is a matter of additional structures beyond the sequential structure of motifemes. An example would include the use of contrast and symmetry in the attributes of dramatis personae; e.g., one is described as rich and handsome, the other poor and ugly.[8] For Burkert, the consecutive changes brought about by these two processes constitute the historical dimension of myth. 'If we are to understand any given myth in all its details, we have to face the fact that it bears the marks of its history, of multiple levels of application and crystallization. It is possible to disregard them, to build up an all-embracing structural pattern; but the effects of transmission are there.' (p. 27)

Burkert disclaims an interest in origins: 'the concept of "origin" is mythical thinking, applying the tale of birth or creation to the constant flux of reality' (p. 27). Instead of getting involved in a vicious regress, Burkert asserts his concern for 'the dynamics of tradition' — an attempt to trace and sort out the consecutive layers in which myths evolve.

From this brief discussion it might be anticipated that Burkert would

carry out a type of historical analysis similar to Propp's transformational approach. However, Burkert makes no mention of Propp's study on transformations. He does frequently invoke the *Morphology of the Folktale*, but this is usually only in connection with his noting some similarities between Propp's functions and plot sequences in Greek material. For example, with respect to one of Heracles' Labors, Burkert says that it 'to a large extent, exactly fits the pattern of Propp: the hero, by order, sets out on the quest (functions 9–11), meets a helper, reacts to him, succeeds in getting the object he needs (12–14) ...', etc. (p. 84). With regard to the myth of Odysseus and the Cyclops, Burkert says that 'viewed from Propp's structuralism, the tale would correspond roughly to functions 11–22 ...' (p. 32).

Using Propp's inventory of functions as a grab bag does not constitute a serious application of Propp's methodology. Burkert does not evince any sophisticated understanding of Propp, so his book is not one that can be examined as an example of how Propp's morphological analysis can be extended to a new domain, that of Greek myth.

It would also have been out of the question for Burkert to have attempted an investigation of the transformation of Greek tales from generation to generation. Greek myths as we know them are not the kind of traditional tales that alter their emphases according to changing interests and social pressures. This follows from the fact that most of the Greek myths are fixed in relatively inflexible literary forms, having ceased to be part of an oral culture (Kirk 1974: 95). Furthermore, myths in Greek literature exist for the most part only in brief allusions. Classical Greek authors generally refer to one or the other aspect of a myth without setting it out in full; consequently, a myth often cannot be presented through the continuous words of the poets of the classical age (Kirk 1974: 13). This partly explains the relative lack of actual texts cited by Burkert.

However, Burkert does not remain within the domain of Greek myth and civilization — he characterizes his approach as *macroscopic*, in that 'different civilizations and vast periods of time are taken into view' (p. xi).[9] There are Near Eastern written documents that antedate Homer by more than two millennia (p. 99). Some of the evidence Burkert cites supporting links between the Near East and classical Greek myths includes etymology of proper names. Other evidence is nonverbal, such as representations in stone relief — in short, archaeological evidence of an iconographic nature.

Burkert pushes his inquiry into the antecedents of Greek myth even further back in time — to the Paleolithic period of prehistory. By attempting to go so far back in time Burkert, despite his protestations to the contrary, does seem to concern himself with the origins of myths. He concludes his book by stating,

This may now be the challenge which Greek mythology poses, that, rather than seeing it in its own distinctive form we should venture to see it in the greater context of the tradition of humanity, and to perceive through the Greek form the antecedent, dynamic structures of experience which have *formed* human life and molded the human psyche in the vast realm of the past. (p. 141–142; emphasis added)

Burkert's historical inquiry can thus be characterized as a concern for the formation of myth, rather than its transformation in the process of transmission. Since this concern for formation sets Burkert's work apart from that of Propp, Thompson, and Lévi-Strauss, we will focus on that aspect.

If we are concerned with the formation of myths rather than their transformation, then we necessarily will be concerned with the immutable aspects of myth, not the mutable ones. We have seen that for Burkert, as for Propp, what is immutable is the basic sequence of action units. Propp, it will be remembered, posited one particular sequence — about a dragon kidnapping a princess — as the input to the subsequent transformational processes. He did not devote much attention to the problem of the formation of this archetypal sequence, other than to suggest tentatively that it derived from archaic religious notions. Furthermore, it will be recalled, Propp stated that links between religion and the fairy tale are probable only when confirmed by cult and ritual material.

Burkert is not an unqualified supporter of the theory that sees myth as derived from ritual, but he does recognize that the two can 'form an alliance for mutual benefit' (p. 57). Furthermore, he posits the same nonsymbolic source for myth and ritual, both of which are symbolic activities. Let us briefly consider Burkert's treatment of ritual, with an eye toward the light it can shed on his theory of the formation of myth.

Theorists in the past have usually attempted to derive ritual from metaphysical ideas or archaic religious notions. Burkert proposes turning this approach on its head — viz., by seeing to what extent metaphysical ideas can be derived from ritual (p. 38). To this end, he thinks that a biological perspective may profitably be adopted. The term *ritual* has been applied by ethologists to a behavioral pattern of animals that acquires a new function, that of communication. The action is redirected for communication, undergoing an exaggeration and stereotyping.

Burkert applies this biological perspective to human ritual 'by asking what is the pragmatic, unritualized function of a behavioral pattern, in order to understand its form and the message transmitted' (p. 39). In the case of animal sacrifice, a species of sacrificial ritual, Burkert states that 'the original, pragmatic action is hunting and killing for food' (p. 54). He

later sums up his discussion as follows: 'In animal sacrifice we find a paleolithic, basically human action pattern, hunting for food, evolving more and more from pragmatic to symbolic level, while preserving characterisitic features in striking detail, and preserving, too, a message and a function' (p. 56).

Burkert postulates that this same action — hunting for food — is also the ultimate source of narratives. He sees this action sequence as the original, pragmatic source of the Proppian quest pattern, the sequence of functions aiming at liquidating a lack. Burkert further adds: 'The biological perspective is confirmed, if we look at the other tale structures we have been dealing with. We need hardly mention the combat tale. It is part of the Propp series, but may become independent, since there are societies which make the heroic-aggressive values prevail over economic interest. Remarkably often there are males fighting for the female.' (p. 16)[10]

Although Burkert posits a common source for myth and ritual, the latter is seen as older than the former since it occurs in animals. Myth is a verbalization of human action — whether the action is ritualized or not (p. 57).

Before offering an evaluation of Burkert's biological perspective on the formation of myth, let us first consider in some detail one of his concrete analyses in which he traces a myth back to the basic action pattern of hunting animals for food. We will examine Burkert's solution to a problem that has vexed many researchers, that of the origin of the most popular figure in Greek mythology, Heracles. There are pictorial representations, on cylinder seals, of Heracles' exploits, dating from the end of the eighth century (p. 78). However, there are also striking parallels to the figure of Heracles and his activities in the ancient Near East; for example, there are Mesopotamian cylinder seals dating from the third millennium that depict a hero beheading a seven-headed snake, etc. (p. 80). This same episode also appears in a Ugaritic text. There is other evidence, both textual and iconographic, that Burkert cites, but he states that a mere accumulation of such detail ultimately proves nothing — there must be some organizing force to integrate them. It is Burkert's hypothesis that this is a basic sequence of motifemes, rather than a character. Thus Burkert asserts that there is no one myth of Heracles, but rather a set of different stories involving the same name. The analyst must select one such story and subject it to detailed analysis (p. 83).

Burkert selects the story of Heracles' adventure with the cattle of Geryon, one of the last of Heracles' Twelve Labors, which takes him to the western borders of the earth and down into the underworld itself. Geryon is a three-headed giant who owns a herd of marvelous cattle, watched over by his herdsman Eurytion and the two-headed dog Orthus.

Heracles is dispatched by Eurystheus to Geryon's home of Erytheia, the Red Island. To get there, Heracles has to force Helios, the sun god, to lend him his golden cup in which the sun travels every night from west to east. Heracles arrives, kills the herdsman, the dog, and Geryon himself, and successfully returns with the cattle.

Realistic interpreters of this myth, Burkert notes, see it as representative of the Indo-European cattle raiding myth. In Italy (a name that means 'land of cattle') Heracles is a cult figure of herdsmen, who have as a major problem the disappearance of their animals. Burkert agrees that Heracles is not basically a heroic figure in the Homeric sense: 'he is not a warrior fighting warriors, he is mainly concerned with animals, ... ; and his main job is to tame and bring back the animals which are eaten by man' (p. 94). But such realistic interpretations do not account for such fantastic elements as a monster dwelling in some mysterious 'Beyond' (a distant country approachable only by way of the sun). Burkert asks, 'Is this "fantasy" gone astray, or is there some real, primary action transformed into the tale?' (p. 88). His answer is that there are two pieces of evidence linking the quest for animals with a mysterious Beyond: shamanism and the cave paintings of the Upper Paleolithic. We will concern ourselves only with the latter.[11]

The cave paintings of western Europe may be 30,000 years old. They were painted by Cro Magnon men, hunters of the Upper Paleolithic period who lived in caves to escape the intense cold of the Ice Age. The greatest number of paintings date from about 15,000 to 10,000 BC. It was during this period that the most famous paintings were executed, those found in the caves of Altamira, in the Spanish province of Santander, and Lascaux, in the Dordogne region of France.

Study of the caves has gone on for about a century, but little is firmly known about them. The first theory advanced to account for them — that they were expressions of man's creativity, art for art's sake — could not hold up in the face of the fact that the decorated portions of many of the caves were deep in the interior, and incredibly difficult to reach. Next, it was theorized that the cave art was a form of hunting magic. Evidence for this theory included the fact that animals were the primary subject of the paintings; moreover, some of them appear to be wounded by spears or darts.

It is this theory of the cave paintings that Burkert adopts as evidence in interpreting the Heracles myth. Burkert notes that the

dominating subject [of the cave paintings] is game for hunting, wild cattle above all ... Connection with hunting practice cannot be denied. And if hunting is a fundamental form of the 'quest,' then entering such a cave must have meant a

difficult journey to another world where one could meet animals .... Thus in terms of action patterns — which underlie even the tales surveyed — we may hypothetically state the following evolution: The basic program of the 'quest,' hunting as a way to 'get' food, is, when thwarted by failure, transformed into a symbolic 'quest'... (pp. 90–91)

Burkert regards the recent discovery of Neolithic cave paintings in southern Italy, in which there are hunting scenes and one big stylized figure seeming to have three horns, as a 'missing link between Altamira and Heracles' (p. 91). He sums up as follows:

Hand in hand with ritual continuity and transformation, tales will have been transmitted, tales of the quest type, structured by this Paleolithic, this basically human action pattern, how 'lack' is 'liquidated' by some miraculous helper who is able to penetrate to the Beyond and to adduce the animals wanted; the Greek name of this helper is Heracles. The span of time involved in this hypothesis goes well beyond the reconstruction of any Indo-European myth; but it accounts for all the basic elements of the pattern ... . (p. 93)

Not everyone, Burkert notes, will feel the obligation to look for possible antecedents of Heracles in prehistory (p. 98). As he indicates, some scholars see Heracles as the idealistic projection of the Greek people themselves (p. 78). Kirk (1974: 190) interprets Heracles' adventure with the cattle of Geryon as involving the conquering of the dead. In this interpretation Geryon is really a 'Herdsman of the Dead'. One detail in support of this thesis is that the two-headed dog that looks over Geryon's cattle can obviously be compared with Cerberus, the many-headed hound of Hades. Burkert acknowledges this interpretation, but he sees it as a consequence of the further development of Greek civilization: 'For the anxieties of emerging individualism, the really important achievement of Heracles was that he could overcome Old Age and Death; the animal stories turned into "survivals," an ornamental background' (p. 97).

Our concern here is not with the analysis or interpretation of the figure of Heracles per se; rather, our interest is in the type of analysis Burkert presents, namely, a hypothesis about the formation of myth. Burkert assumes that if he pushes the inquiry back to Paleolithic times, he can uncover the original pragmatic actions that became symbolized as myth and ritual. These actions, as we have seen, pertain to hunting for food. Burkert's analysis thus is reductive — reducing myth to something not only nonmyth, but also nonverbal and nonsymbolic. The result is not unlike the atomic propositions (about sense data) that logical positivists tried to reduce all meaningful propositions to.

It is perhaps impossible to expect any firm conclusions to be attained

about such a murky topic as the formation of narrative structures. Burkert's book certainly leaves me unconvinced that we can really push any inquiry back to the period preceding the formation of narrative (or, more generally, semiotic) structures.

One more manageable question concerns Burkert's specific hypothesis about the Heracles myth. As we have just seen, Burkert's analysis is tied to an interpretation of the cave paintings of Altamira and Lascaux as a manifestation of hunting magic. However, the present consensus is that the hunting magic theory is no more tenable than the originally proposed theory of art for art's sake. The hunting magic theory was essentially demolished by the work of André Leroi-Gourhan. His investigation of the cave paintings revealed that less than 10% of the represented animals were marked with wounds or darts; and many of the wounds were in odd places, such as the ankle. It had even earlier been observed that the reindeer, although the principal staple of the hunters' diet, played only a small role in the paintings. Leroi-Gourhan came to the conclusion that in many caves entire walls could be viewed as a deliberate composition, with animals paired to represent Paleolithic man's philosophical division of the world along sexual lines.

More recent work on Paleolithic cave paintings by Alexander Marshack calls into question Leroi-Gourhan's theory. Close, microscopic inspection of the paintings revealed to Marshack that many of them had been periodically renewed; that is, details were added, by different hands, to the original image, or one image was imposed on another. The implication is that a single image was used many times, year after year, for some symbolic, ritualistic purpose. This observation might seem to lend support to the simple theory of hunting magic, but Marshack's analysis of the whole Upper Paleolithic art tradition, of which the cave paintings are only a part, suggests much more complexity. This art tradition is primarily reflected in *art mobilier*, engraved tools, weapons, and other objects, which is found where there are no limestone caves. Marshack's first encounter with Upper Paleolithic art was with such objects, and what immediately sparked his interest were markings on them that had usually been interpreted as either decorative designs or as tallies of animals killed by the object's owner. Marshack discovered that the markings conformed to the lunar cycle. This implies that Cro Magnon man had the cognitive ability to think in time in a modern sense. He could observe, and remember for future use, the cyclical patterns of the seasons, of plants, and of animals. Since he was capable of highly complex symbolic notation, then it is obvious, in Marshack's view, that he must have had a complex body of ancient tradition. Marshack speculates that every image in the caves is the abstract of a linguistic myth.

These observations about the cave painters are reminiscent of Lévi-Strauss's conclusions about the underlying concerns being expressed in the North and South American myths we considered earlier. Lévi-Strauss sees these myths as developing simultaneously in three registers, one of which is astronomical and calendrial and concerns daily, monthly, and seasonal periodicity. Another register is concerned with the upbringing of young girls: 'the female organism must be moulded so as to allow it to fulfill its periodic functions: menstruation, pregnancy, and childbirth' (Lévi-Strauss 1978: 226). And with regard to the observation that most of the animals depicted in the cave paintings were not part of the hunters' diet, we can paraphrase Lévi-Strauss and say that the animals were chosen because they were good to think with, not good to eat.

Propp's analysis of the Russian fairy tale supports the same conclusion, i.e., the relative independence of the narrative from purely utilitarian matters of everyday existence. Consider the function *a* (Lack), which can take various forms, such as lack of a bride, a magical agent, or other wondrous objects such as a fire bird. Propp does include in his inventory what he terms 'rationalized forms' such as money, the means of existence, etc. But he adds that 'such beginnings from daily living sometimes develop quite fantastically' (1968: 36).

To be fair, it should be noted that Burkert makes some remarks stressing that the mythic text is not bound to pragmatic reality: 'A tale is not, and cannot be, an accumulation of atomic sentences, it is a sequence in time, linking different stages by some internal necessity .... Reality does not automatically yield a tale .... The form of the tale is not produced by reality, but by language, whence its basic character is derived: linearity' (p. 3).

However, Burkert makes other remarks that contradict the preceding one. For instance, with reference to the quest plot pattern, he asserts that it is ultimately derivable 'from the reality of life, nay, from biology. Every rat in search of food will incessantly run through all these "functions" ...' (p. 15). But, as Burkert himself appreciates, narrative units are semantic, they are not units of physical motion. If, as many researchers would assert, there is a discontinuity between human language and the sign systems of animals, then it remains unlikely that the roots of narrative can be found in action patterns that man may share with animals.

There is a current vogue to attempt to explain much of man's behavior in ethological terms. Not all ethologists are ready and willing to rush into such theorizing, however. Consider, for example, the Oxford zoologist Richard Dawkins's fascinating book *The Selfish Gene* (1976). In a chapter on 'Battle of the sexes' Dawkins discusses strategies that females employ to ensure that the male will contribute to child-rearing and not disappear

after copulation. Toward the end of the chapter Dawkins says 'I have not explicitly talked about man but inevitably, when we think about evolutionary arguments such as those in this chapter, we cannot help reflecting about our own species and our own experience' (pp. 176–177). But he goes on to recognize that human experience is much more varied: 'What this astonishing variety suggests is that man's way of life is largely determined by culture rather than by genes' (p. 177). Earlier in his chapter he has this particularly relevant observation to make.

Demanding that a prospective mate should build a nest is one effective way for a female to trap him. It might be thought that almost anything that costs the male a great deal would do in theory, even if that cost is not directly paid in the form of benefit to the unborn children. If all females of a population forced males to do some difficult and costly deed, like slaying a dragon or climbing a mountain, before they would consent to copulate with them, they could in theory be reducing the temptation for the males to desert after copulation. Any male tempted to desert his mate and try to spread more of his genes by another female would be put off by the thought that he would have to kill another dragon. In practice, however, it is unlikely that females would impose such arbitrary tasks as dragon-killing, or Holy-Grail-seeking on their suitors. The reason is that a rival female who imposed a task no less arduous, but more useful to her and her children, would have an advantage over more romantically minded females who demanded a pointless labour of love. Building a nest may be less romatic than slaying a dragon or swimming the Hellespont, but it is much more useful. (Dawkins 1976: 165–166)

In bringing the discussion of Burkert's work to a conclusion, let me reemphasize that I have focused on only one aspect of his work — that concerned with the formation of mythic structures. While I cannot judge how valuable classical scholars may find Burkert's work, I do not feel that it ultimately offers a viable challenge to the synchronic approach to myth analysis. Of course, we need to remember that historical research is not necessarily restricted to the search for origins, or the attempt to explain the formation of structures. A historical inquiry can also be concerned with the transformation of structures over time. Such an approach can be complementary to a synchronic approach, as the work of Propp demonstrates. There is still an obvious need to rethink the Saussurian dichotomy of synchronic and diachronic, as applied to myth analysis. Also, historical studies in folklore need to question the pervasive underlying devolutionary premise — that change results in decay. Rather than a study of change oriented backward in time, I would like to see more effort devoted to a forward perspective, which would trace the transformation of oral folklore genres into written literary ones.

Notes

1. It should be noted that Saussure regarded the general properties of the sign as an integral part of synchronic linguistics, as opposed to diachronic linguistics (Saussure 1959: 101). The other major modern figure in semiotics, C. S. Peirce, did pioneering work in the nonhistorical fields of logic and mathematics.

2. Burkert's book is a published form of the Sather Classical Lectures he delivered at the University of California, Berkeley, in the spring of 1977.

3. Kirk's neglect of Propp cannot be attributed to the fact that Propp's object of investigation was fairy tales rather than myths. Kirk regards myth as belonging to the more general category of traditional tales; and he regards Greek myths as having numerous folktale elements. The relation between myth and folktale is a complex topic that could be the focus of a separate article.

4. The fourth criterion is equivalent to the age-area hypothesis of linguistic geography, and it forms one of the fundamental assumptions of the Finnish school in folkloristics. This hypothesis must be applied with caution, for it potentially can lead to false conclusions; e.g., that the term *cottage cheese*, known all over the United States, is older than the more localized synonym *Dutch cheese* (see Hockett 1958: 478). Propp, it should be noted, is well aware of the caution with which this criterion must be applied (Propp 1968: 102).

5. Strictly speaking, to specify the horse as a gift is to specify the manner in which the character exemplifying the helper role is introduced into the course of the action (Propp 1968: 84, 124). The manner of inclusion of the helper into the course of the action is element #84 in the inventory of 151 elements.

6. Although there is a cycle of South American myths concerning a Star Wife, Lévi-Strauss does not directly relate this cycle to the North American Star Husband one. Instead, he relates the Star Husband myths to a South American (Tuana) myth entitled 'The Hunter Monmaneki and his Wives', which is the starting point for *The Origin of Table Manners*. In that myth two brothers-in-law symbolize the sun and moon, and the myth has to do with the periodicity of night and day. In certain variants of Thompson's Type II, as we have seen, the sun and moon occupy a prominent position instead of being merely suggested.

7. A separate question would concern the change over time of the global system. Lévi-Strauss has tentatively suggested that myth has evolved into such literary genres as serialized novels and detective novels with recurrent characters (Lévi-Strauss 1978: 17). This is an instance of what I would term *prospective change*, as opposed to *retrospective change*. The latter is characteristic of historical research.

8. Others have referred to the same phenomenon, but with different terminology; see, for instance, Colby (1973) and Olrik (1965).

9. This is another difference from Propp, who stated that the analyst should work through the corpus of one people at a time (1971: 102).

10. What Burkert refers to as the *combat tale* is presumably Propp's move that has as primary parts the functions H (Struggle) and I (Victory). In the archetypal tale this move occurs first, followed by a move built around the functional pair M (Difficult Task) and N (Solution). The usual consequence of M-N is the hero's obtaining a bride. Although H-I and M-N are mutually exclusive within any one move, all tales have to develop out of either villainy (A) or lack (a). For further discussion of these two moves, and the existence of two fundamental types of narrative structure, see Hendricks (1975).

11. To supplement Burkert's very brief treatment of the cave paintings, I draw upon Tomkins (1974). This article, primarily about the work on the cave paintings by

Alexander Marshack (*The Roots of Civilization*, 1972), provides background information that allows a critique of Burkert's discussion.

References

Coffin, Tristram P. (ed.) (1961). *Indian Tales of North America: An Anthology for the Adult Reader* (=Bibliographical and Special Series XIII). Philadelphia: American Folklore Society.

Colby, Benjamin (1973). A partial grammar of Eskimo folktales. *American Anthropologist* 75, 645–662.

Dawkins, Richard (1976). *The Selfish Gene*. New York: Oxford University Press. (Galaxy Books ed., 1978.)

Greenberg, Joseph H. (1957). Language and evolutionary theory. In his *Essays in Linguistics*, 56–65. Chicago: University of Chicago Press.

—(1979). Rethinking linguistics diachronically. *Language* 55, 275–290.

Hendricks, William O. (1975). The work and play structures of narrative. *Semiotica* 13, 281–328.

Hockett, Charles F. (1958). *A Course in Modern Linguistics*. New York: Macmillan.

Kirk, G. S. (1970). *Myth: Its Meaning and Functions in Ancient and Other Cultures* (=Sather Classical Lectures 40). Berkeley: University of California Press.

—(1974). *The Nature of Greek Myths*. Harmondsworth: Penguin Books Ltd.

Lévi-Strauss, Claude. (1967) [1945]. Structural analysis in linguistics and in anthropology. In his *Structural Anthropology*, 29–53. New York: Anchor Books.

—(1960). L'Analyse morphologique des contes russes. *International Journal of Slavic Linguistics and Poetics* 3, 122–149.

—(1978). *The Origin of Table Manners*. New York: Harper and Row. (French ed., 1968.)

Olrik, Axel (1965) [1909]. Epic laws of folk narrative. In *The Study of Folklore*, Alan Dundes (ed.), 129–141. Englewood Cliffs, N.J.: Prentice-Hall.

Piaget, Jean (1971). *Structuralism*. New York: Harper Torchbooks. (French ed., 1968.)

Propp, Vladimir (1968). *Morphology of the Folktale*, 2nd ed. Austin: University of Texas Press.

—(1971). Fairy tale transformations. In *Readings in Russian Poetics: Formalist and Structuralist Views*, Ladislav Matejka and Krystyna Pomorska (eds.), 94–116. Cambridge, Mass.: MIT Press.

—(1976). Study of the folktale: Structure and history. *Dispositio: Revista Hispanica de Semiotica Literaria* 3, 277–292.

Saussure, Ferdinand de (1959). *Course in General Linguistics*. New York: Philosophical Library. (1st French ed., 1916.)

Thompson, Stith (1965) [1953]. The Star Husband tale. In *The Study of Folklore*, Alan Dundes (ed.), 416–474. Englewood Cliffs, N.J.: Prentice-Hall.

Tomkins, Calvin (1974). Thinking in time. *The New Yorker*, April 22, 109–128.

Watkins, Calvert (1973). Language and its history. In *Language as a Human Problem. Daedalus*, 99–111.

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