

Chapter 7

On Growth and Form of Narrative Structures

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Abstract Narrative is firstly a formal organization, but it is a form that interprets the events giving them meaning. Starting from a reinterpretation of the classical *Morphology of the Folktale* by Vladimir Propp, we can now note how narrative form and cultural meanings interact with each other. Thus, we remove the “formal” dimension from its traditional segregation to a universe of insubstantial non-things, returning it to the arena of human strategic action and social practices. We may conceive a story as a route performed by a subject on a social and categorical map: so, a narrative configuration is essentially a set of dynamic relations, lying between a procedural and a systemic dimension. We find the basis of everything in the fundamental Saussurean view that interrupts the ordinary separation between “things” and “relations”: identity, meaning, and structure are the effects of systemic relations. In this light, Claude Lévi-Strauss offers us the most elaborate picture of narrative systems, where textual objects are seen as secondary outcomes of transformational tensions: every text is by nature a remake; it exists only through other texts. The most radical feature of this original perspective is indisputably the adoption of the theoretical model expounded by D’Arcy Wentworth Thompson in his famous book on the morphogenesis of zoological species, *On Growth and Form*. Textual theory emerges greatly innovated, linked to a view of cultures as systemic networks of connected texts. And this applies also to products of our culture, as the concluding examples (the *Alien* film saga and Puccini’s *Bohème*) should positively illustrate.

7.1 The Meaning of the Form

For some time, the idea that the narrative system has a central or even primary role among other semiotic systems is widespread, not only in semiotics but also in psychology and other areas of the humanities. Take, for example, the opening

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words of Hayden White's famous book *The Content of the Form*, which is undoubtedly relevant to our discussion: "To raise the question of the nature of narrative is to invite reflection on the very nature of culture and, possibly, even on the nature of humanity itself" (White 1987: 1). This primary and dominant position—that could for the first time free language from the role of "primary modeling system"—seems attributable to the fact that the narrative system offers us an image of special abstraction, or of particular purity, where the form dominates what represents the filling, i.e. the concrete elements of the story. The distinction in the field of historiography between real history and simple chronicles is revealing. "Form" is the manner, imbued with narrative, in which historians organize the data provided by the material in the chronicles. This form gives meaning to events that, by themselves, do not appear to have a narrative configuration. As White writes (1987: 44), "any given set of real events can be emplotted in a number of ways, can bear the weight of being told as any number of different kinds of stories". So, "it is the choice of the story type and its imposition upon the events that endow them with meaning". The narrative, in short, adds nothing to the content of the events that it tells, but superimposes a formal organization, and since this form interprets the events, it is crucial to their meaning. Let's start from the idea that the form is anything but a neutral instrument of meaning, and let's discard from the very beginning the hypothesis that sees the form that organizes a story as a mere reproduction of the "form of the events" to which it alludes. Multiple hypotheses are still available, which are very different from each other.

The book to which we refer most often, as the starting point of narrative theory, holds the significant title of *Morphology of the Folktale* (Propp 1928). This work primarily presents an "unitary composition scheme", intended to describe the general form of folktales from the Russian tradition. The scheme, despite being constructed in a partially inductive manner (from one hundred textual samples), can neither be described as a simple generalization nor as a real prototype. Since no folktale presents the entire range of functions that make up the whole schema—some, in fact, present very few, or select a conspicuously partial subset—you could say on one hand that the composition scheme is, as such, missing direct textual implementation, and on the other that each story is seen as an imperfect trace of the model, as an incomplete and basically inessential occurrence. What matters are not the projections of the model onto textual objects, but the semio-cultural configuration as such: an higher-level entity, not directly observable, understandable only in its whole finished design, and as such the primary carrier of semantic values. This hypothesis is perhaps questionable, but intriguing.

The cultural value of this configuration was subsequently clarified by an analysis of its *historical roots* (Propp 1946), which is founded in the fundamental ritual practice of initiation ceremonies. This historical and cultural grounding, badly lost in subsequent generalizations, should make us aware of the fact that the schema matches one of the different existing narrative architectures. In any case, this inaugural essay, permeated by the spirit of the formalist movement, has bequeathed us with the idea that it is to some extent possible to isolate a purely formal level, provided with relative autonomy.

For its part, the subsequent Greimasian school, despite having insisted on the concept of “immanence”, nevertheless allocated immanent nature only to the variable textual content, and certainly not to the formal structures called to organize them—regardless of whether we are referring to the “semiotic square” proposed to structure the deep level or the “canonical schema” which sets up the surface narrative structure. With respect to the first structure, we return to a logical dimension found in the most extreme levels of generality and abstraction, trying even the dubious move of an Aristotelian complicity. The second structure invokes the interesting but imprecise concept of an analogy of life experience. Neither these, nor other formal structures proposed in the course of the volcanic wave of Greimasian innovations, are marked by historic value, and therefore meaning. In the case of the semiotic square, the meaning comes from the elements called to fill the slots, not from the logical form, conceived as unchanging and neutral. The same can be said for the “canonical narrative schema”, which in spite of its limited starting textual reference was immediately, carelessly generalized, taken on as an universal model of narrative construction. The reference to the formal mechanism does not imply, in this context, a choice, axiological implications, or semiotic functionality. Regardless of whether they are logical structures or experiential patterns, they are projected onto the text as if they were plummeting down from extra-semiotic spaces. One may well ask at this point if other avenues are possible, theoretically better developed and more suitable for insertion into current perspectives. As we will see, in this sense important traces in the history of semiotics are identifiable. One must, first of all, not think of “form” as a kind of statically defined mold or matrix, located on an uneven plane compared with that of textual objects, and therefore removed from the mechanisms of the “framework of social life”, which Saussure tied to his original conception of semiotics. One must also remove the “formal” dimension from its traditional segregation to a universe of non-things, as impeccable as insubstantial, in order to return it to the arena of human action, endowed with meaning and strategic direction, in the middle of “social practices”. As we shall see, there are semiotic theories that move in this direction. However, from the beginning we must remember the fundamental Saussurean concept that interrupts the ordinary separation between “things” and “relations”. He claims that the identity of things is definable in terms of a pure set of relationships, without requiring full entities, or “positive terms” with which to engage for their institution. But if we really want to understand in what sense it is possible to identify a formal component, independent or otherwise, we need to clarify something regarding the basic conditions of narrative.

7.2 The Essence of Narrative Form

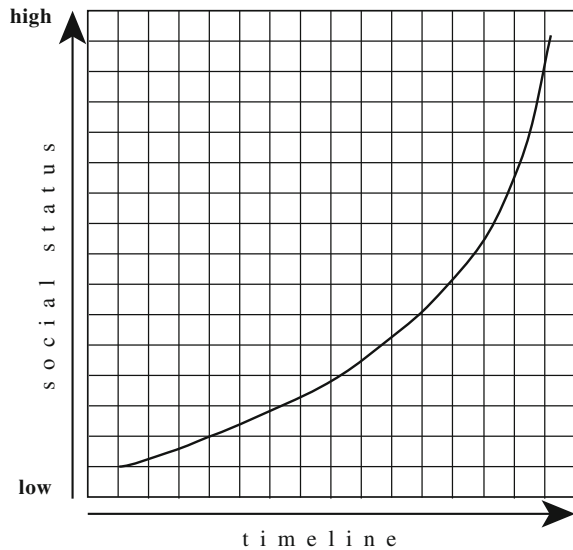
The concept that narrative constructions are based on an elementary structure is largely accepted. Gerald Prince (1982), who addressed this in more detail than others, called it “minimal story”. It is composed of three segments: A. a departure

state, B. a transformative event, C. an arrival state. Between the first and the second segment there is a simple temporal succession, while between the second and third, there is also a relationship of causal determination. Finally, the state of things C, presented in closure, should not be thought of as independent, and must correspond to a possible transformation of the departure state A. Let us add that this also assures the hold of the thematic continuity. If, for example, the opening segment thematizes the economic status of a character X, that we assume suffers from poverty, the closure state should also address the relationship between X and an economic state. In the C phase he could have become enormously rich, simply not as poor, or have gotten even poorer. This, in any case, must appear as a result of the way in which the event B has transformed the initial state A.

Of course, most stories are far more complex. But the first explanation for this is that elementary structures of this type are simply joined in sequence, so that the story presents itself as a set of segments, in which each segment is defined by one entry and one exit configuration. Another interesting mechanism is one in which a minimum story (described earlier) generates a series of expansions that can even create a very long and complex construction. For example, the starting condition, “X is poor”, can be expanded into a sub-narration that explains how X has been impoverished, say, losing his possessions at poker. In a next step, the transformative event “losing his possessions at poker” can be expanded into an episode with greater detail, which shows how his dearest friend transformed him from a prudent father into a reckless gambler. It can continue in this manner theoretically to infinity. At each step, what was a single phase of a simpler structure gives rise to an entire sequence. The mechanism is elementary, if you will, but offers us a way of looking at *text generation* in a very different manner from the Greimasian “generative trajectory”, often criticized for its difficulty in explaining *conversions* between levels that are too markedly heterogeneous. The generation of a story does not start with an abstract logical structure, but from a basic narrative structure. In addition, this perspective offers us a substantial isomorphism between the overall shape of the story and the configuration of the segments that compose it. At all levels, the main idea remains the same. A beginning condition is given, defined as relational configuration between a number of elements. A transformative process, changing the relationships between those elements, establishes the end condition. The vicissitude that corresponds to the classical Propp-Greimas pattern shows, for example, the transformation of a character’s identity, originally in a state of social marginality, later achieving a status characterized by wealth and power.

The concept of a *transformative event* corresponds in substance to the Proppian concept of “function”. Although the original definition was formulated in an unsatisfactory manner, we can utilize the suggestion related to the use of a term that, at least in Western languages, has a key role in both the mathematical and computer theory. The latter is particularly interesting, in that in computer theory a strictly defined procedure, which outputs the result of a transformation of the input terms, is called a “function”. The analogy is therefore not superficial. For example, when we speak of the function called ‘Attainment of the magical tool’, we refer to an incident that leads to a condition defined in relation to the departure point—the

Fig. 7.1 The grid represents the invariable social system, while the *curved line* represents the individual route: a change of position in the grid



protagonist must do something but lacks one or more essential tools—into a different output condition. In this case, the hero now has the tools needed to accomplish the feat. With each function that happens in the story, the situation—that is, the relationship between the elements at hand—changes in a certain way, corresponding to the transformative nature of that particular function. Even if in the various narratives the elements may be completely different, the function processes this relational transformation following the same logic. Therefore from Propp’s research we derive the idea that the transformative phases, central to any narrative construction, do not require a local description, but correspond to a limited set of procedures that are grammaticalized on a, in some way, global level. On top of this, there is the fundamental concept that a narrative model (or “compositional scheme”, in Proppian terminology) corresponds to an essentially fixed string of functions. The elements that are introduced have little importance, since the meaning comes mainly from the global design of this transformative mechanism.

From this basic theoretical model, it is possible to add at least two more elaborate, different but not mutually exclusive, notions. The first notion, which examines the relationship between the departure and arrival states, recognizes the presence of a fundamental hierarchical relationship that definitely favors the second state with respect to the first. Greimas’s definitions are the most well known in this regard. He refers respectively to *placed content* and *reversed content*, but often this view is not only connected to, but confused with Lévi-Strauss’ concept, from which it was originally inspired. Both authors believe that the situation presented in the final stages of the story is that which is positively supported and affirmed by the text, and which is reversed in the initial situation. There are, however, decisive differences. In Greimas’ version, everything is tied to the perspective of a subject

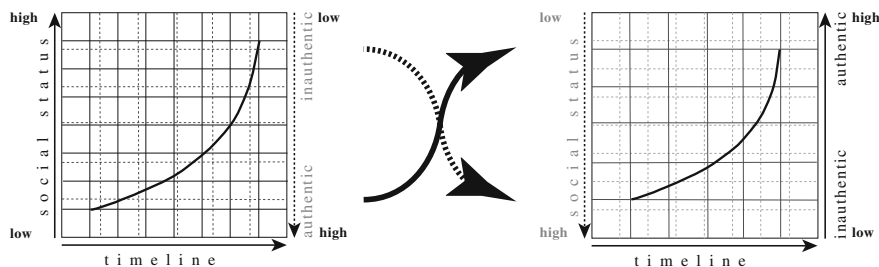


Fig. 7.2 Here the individual route remains unchanged, but the subject decides to change the coordinates defining the frame of reference he is using to read the reality. So, the value of the opposite poles turns out to be reversed, in both couples concerning social status and authenticity. Same route, but in an altered grid

that formulates a narrative program that will lead to the final condition, which is initially placed in the dimension of desire and virtuality. In Lévi-Strauss' case the final state, on the contrary, far from being marked by virtuality, corresponds to the state of things as we can observe them in the world around us, while what is projected in the past tense (“mythical times”), therefore placed in the initial phase of the story, is its hypothetical, virtual conceptual variation. The theoretical question—for instance, around the value of the seasons or the meaning of funeral rituals—is answered through the examination of an alternative condition: “And if the seasons did not exist? And if funeral rites were not held?” In both cases, however, the beginning and end no longer appear to us as simple poles of a linear sequence, but rather as hierarchized constructs, dispersed on the timeline for fundamentally semantic reasons. We can already say that the story, rather than “moving” syntagmatically from one extreme to another, compares paradigmatically alternative conditions.

However, another direction that we can examine opens up, as stated earlier. The narrative arc, which we superficially see as a bridge between the initial and final state, establishes a *polarity* that separates, and somehow keeps the two conditions at a distance. Obviously, since all of the elaborations of the basic formula are possible, we can encounter every imaginable variation, including those of narrative texts in which the final state is no different from the initial one. We know, however, that the basic form tends to mark a clear difference (for example, the character that will eventually be rich and powerful is poor and marginal at the beginning). In the framework of the creation of an integrated semiotics¹—what I call “neoclassical” semiotics—this differential tension was linked to (quite spontaneous for those who work in a Saussurean manner) the concept of *difference* as the primary root of signification. It is quite logical to consider the narrative construction as a device that manages the projection (stretched across the expositive dimension of the sequence) of a semantic value, by its nature defined precisely in terms of a difference. The typical narrative path, that runs from the disjunction from some object of value

¹ Ferraro (2013): 183–192.

(taken as the initial condition), to the conjunction as a final condition, may well be rethought of as the result of the syntagmatic spreading of a value construction. Contrasting absence with the presence of a marked entity, its value becomes evident. In this manner, for example, by showing the difficulty, the misery and sorrow of those who live under foreign rule in the beginning, and showing the satisfaction, the benefits and happiness of those who enjoy freedom and independence in their own homeland in the end, one could express a thorough semantic investigation of the concept of “national independence”, pathemic components included. The narrative results in an exploration of an area of the cultural system.

In the neo-classical semiotic project, aimed at overcoming the traditional separation between semiotic research areas, this analytical method represents a pivoting point, as it allows a decisive structural connection between narrative theory, sign theory, and the theory of passions. Even the latter, in fact, responds to the same construction principle. What we call “passion” is the effect of meaning resulting from the comparison between two alternative states of affairs (the comparison between the possessing or not possessing a certain thing represents, of course, only one of many discernable cases). In short, we have at our disposal the first draft of a basic form that, by developing the Proppian concept of function, brings many key areas of semiotic theory closer to each other. An essential concept lies at the root: what appears to have a positive identity should instead be conceived of as a basically relational structure.

7.3 The Process and the System

This “nuclear” conception of the story, while presenting many interesting aspects, as we have seen, is an overly simplified schematization. In the context of this article, centered on the genesis of narrative forms, it should be especially emphasized that a redefinition of Proppian “functions” in terms of transformative procedures neglects the important question of the authority to which these regulatory mechanisms refer (therefore, in Greimasian terms this concerns the role of the Sender, with all its variants and its rightful extensions²). For example, consider the aforementioned segment of the Proppian compositional scheme in which the subject of an action finds themselves unable to carry out their narrative plan for lack of knowledge, skills, tools, or transportation. Citing the transformative process—which will change the relationships between the elements at play, and output a subject prepared to accomplish the task—is not enough here, we must also specify that this procedure is initiated and controlled by a defined top-level entity (according to Propp, this corresponds to the Donor, and for a more elaborate narrative semiotics to the Sender of use values).

This means that the *function* status is more complex, because it must take into account both the completed transformation (or the transformation that is planned,

² See Ferraro (2012).

expected, and hoped to be realized) and the authority that presides over it as well as the control logic that it applies. These forces, that design and govern the transformation procedures, are essential in determining the meaning of the events. That Romeo and Juliet could shift from being simple lovers to legitimate spouses (Wedding function) is certainly interesting, but it is obvious that the meaning becomes very different if they marry by choice and without difficulty, if they are forced to do so by their parents, or if they marry with the complicity of mothers but against the wishes of their respective clans, and so on. Every solution bears very different meanings, precisely because each of these possibilities places the transformative action in a different position within the *map* provided by the normative framework.

This concern for *rules* is consistently present in the narrative constructions. Even if we look only at Propp's compositional scheme, we can see that the function couple Prohibition/Infringement is proposed from the very beginning. In as far as the value assigned to these functions can be significantly variable (the prohibition may be proposed with correctly protective intent, or conversely as unlawful limitation of the protagonist's free will), we should still take note that, from the beginning, a dialectic is proposed between dependence and autonomy, and with this an unequal condition of knowledge and authority, and an opposition between rules coming from the outside and the choices made by the protagonist. The first indication of what we call the "Subject" is presented in terms of an ability to define routes and plans of action, coming out of a "home" to be understood not only as a protective family but also as a reference to the systemic dimension of shared norms. This narrative architecture immediately declares that the subject does not exist if not through its own distance from the plane of constructed models. This is immediately seen as an irrational and self-destructive gesture. The story may later lead the protagonist to a positive redefinition of their identity and their relationship to the surrounding universe. However, *going through the forest* despite mother's prohibition, as happens in many fairy tales, appears at first as silly as Ulysses' decision to go and see what there was beyond the pillars of Hercules was traditionally considered "crazy".

In more general terms, we can see that much narrative architecture is built on the correlation of two planes, respectively based on profoundly different logic. One plane is based on what I call the Perspective Rule, transformative and innovative, moved by the desire of a Subject that intends to achieve valued goals (typically, acquire social status). On the other hand there is a Destination Rule, called on to uphold the syntactic positions that belong to various types of Senders, but which correspond first of all to a shared plane of norms and patterns. If the first Rule is activated by the subject's willingness to change its position in the social system, the second is instead a systemic tendency towards homeostasis and the reconstitution of balance. Each of the two planes has its own distinct functional logic and its own manner of story construction, as well as its own evaluative logic for the assignment of meaning to things. These evaluation methods have a *subjective* nature for the Perspective level and an *objective* nature for the Destination level. Hence the definition of two distinct sets of semantic assignments, and the construction of separate Objects of value. The architecture that best shows this duality is that which

is based on the Contract, because by definition it implies an exchange of Objects of value, and on a deeper and interesting level, the possibility for *translatability* between objective and subjective values. In this manner, for example, the killing of a dragon that threatens the community (somatic act on the objective level) can be translated, on the subjective level, into the decisive transformation of a strictly personal identity.

Precisely as the contract-based architecture shows us, the two *procedural* and *systemic* narrative levels in fact implicate each other. We see that the social authority (in the fairy tale, typically, the king) is not able to act on the objective plane in the absence of a subject who is looking for an identity. On the other hand, this subject cannot hope to achieve their desired identity until some urgency is objectively reported. This relationship of implication can be made equally clear even in a completely different architecture. For example, when the subjective and private love affair between characters like Romeo and Juliet, otherwise devoid of particular interest, collides with a conflictually structured social system.

As one can imagine, a significant portion of the meaning in a narrative text (or in the model that underlies it) lies in the way this fundamental relation is defined, demonstrating if the subject asserts itself through the observance of the rules, or conversely rebelling against them. A factor that has decidedly limited, and somehow diverted the development of narrative theory, is the obsessive reference to an architecture, such as that of typical Russian fairy tales, that is characterized by a marked respect for authority, and therefore by a principle in which the definition of personal identity comes from above, provided through strongly coded elements (noble status, accentuated levels of wealth, etc....). In this case a kind of static map of the world predominates. The subject, even with all of its agency, has no intention of changing this map. Instead, the subject has every interest in keeping the structure firm, simply changing its place on the map. The story never questions the grid on which is drawn, but merely indicates the distance between the starting and ending position of the subject. The final function that Propp astutely called Wedding (even without fully grasping its value) is particularly emblematic in this sense. The Wedding, more than just a positive sanction, overlaps a prize value with the very interesting concept of a merger. The Subject, initially very far from the heart of the social mechanism, affirms himself by dissolving into the authority, marrying and becoming King himself, a guiding principle, foundation of that unalterable world map on whose entanglements he earlier actively climbed (Fig. 7.1).

7.4 Questioning the Frame of Reference

We need not think about the new world that opens up beyond the Pillars of Hercules in order to explore a very different architecture than that which Propp studied. A mundane transatlantic cruise could illustrate how a modest route can be equally significant (it is symptomatic that the representation makes use, in any case, of a spatial distribution). I'm referring to the story told in the film *Titanic* and to the

small vertical journey that leads a girl, initially decked in first class with her mother and future husband, to descend into the far more lively and intriguing third-class deck, falling into the arms of a romantically creative but penniless passenger. It is evident here how different the pillars that hold up the narrative architecture are. The girl is very aware that she is not moving on a static social and categorical map. With her gesture, she is affirming another way to: read the world; determine the relationships between the values; conceive individual destiny; evaluate the impact of the rules. All of this is irreducible to the reading of world from which she comes. In particular, it becomes clear that individual destiny is no longer the variable element in a fixed reference system, since what is questioned in the first place is the reference system itself. In a certain manner, the configuration of the linear development does not fundamentally change. The beautiful Rose must still identify the person with whom she feels an affinity strong enough to impel her to join their life. The development of events remains substantially the same (the girl does not decide, say, to give up a betrothal in order to instead enroll in a university course, but rather inhabits the same type of story with another logic), the difference lies in the shift of interested values—those that in our metaphorical use of the Cartesian model would be found on the ordinate axis. The story's audience clearly perceives that the change of reference values makes the girl protagonist similar to the romantic artist in third class, and hopelessly dissimilar to the businessman boyfriend with whom she otherwise shared the opulent spaces of first class. Maintaining the route taken by the girl substantially stationary only serves to emphasize the comparison and difference between the reference systems, and makes it clear that this is precisely what matters (Fig. 7.2).

Far from being an anomaly, this example indicates how limiting the flattening of the story to a mere linear process of transformation can be. In fact, quite central is the relationship that situates the transformative process in the design of the very space that maps the possibilities, the categorical axes, the reference points, and ultimately the criteria for creating meaning. The model of the map and route, or in my terms the intersection between the two fundamental principles of Destination and Perspective, can be seen at the root of many narrative phenomena, as well as at the root of ways of building sense in many semiotic systems. I will cite just one example, whose distance provides an idea of the conceptual model's range. According to Byron Almén (2008) music, in its various forms, has a construction similar to that of the narrative. Each piece of music is based on a tension between order and chaos. On one hand, it provides a system of tonal and formal rules, but on the other hand, the composition's development derives its appeal from the fact that in some way it seems to question the system itself. The musical phrases, in a certain sense equipped with a kind of agentive force, present dissonances and irregularities, delays and detours. These introduce conflict, the possibility to disrupt order, a virtual effect of chaos. The musical architecture is therefore based on a conflict between a hierarchy and a transformation principle, whose results may be different depending on the case. Will the order be maintained in the end, or will new and unexpected paths open? Will the hierarchical system be upset by the transgressions, or will a synthesis of initially conflictual components be reached? We are faced,

once again, with a variant of the model proposed earlier. We can understand that the confirmations could be multiplied, utilizing reflections from many different semiotic fields. But at this point it is sufficiently clear in what sense the narrative does not propose a linear process, but rather a complex and ever-changing relationship between the dimension of the process and its systemic context, constantly called into question, or if we prefer, between the journey and the map on which it takes place. Now we can use a theoretical conception that develops these ideas, reorganizing them in an original and advanced direction.

7.5 The Concept of “Transformation”, from Thompson to Lévi-Strauss

Claude Lévi-Strauss, one of the most important masters of narrative theory, proposed a very different perspective on the generation of stories from those most common in semiotics.³ He does not refer to the generation of text from an external cultural model (as in practice we find in Propp), nor to its generation from a deep internal core (as in the Greimasian path). His concept is radically structural and Saussurean. As the Genevan teacher claimed, semiotic objects are presented as a kind of epiphenomenon that veils their true nature as essentially relational entities. This principle is applied by Lévi-Strauss both to the specific symbolic components present in stories and to whole texts and mythological complexes. The concept of “relational identity” is methodologically rendered through the introduction of a completely new notion of “transformation”.

In this perspective, the narrative heritage of a culture is no longer thought of as a set of stationary and closed objects, with independent and internally defined identity (that which we usually call “texts”), but rather appears in the form of an uninterrupted flow of ordered operations, those for which we would now use the term *practices*. These continually reinterpret and rewrite the myths, so that it is never possible to identify an “original” or “definitive” text. Each story is nothing but the coagulation of a transient state of the symbolic system. On the other hand, the system only manifests itself through its precarious projection onto a series of texts. If what matters the most in every story is the differential range that defines and identifies it, the “structure” does not seem as important as its transformative capacity. In this view, the texts acquire meaning through the interweaving of their mutual references, by playing with analogy and reversal, in a fascinating mechanism of incorporation and endless *remaking*. Every text, one can say, exists only *through other texts*. Every myth is by nature a translation, deriving its origin from another myth in a neighboring but foreign population, or from a myth in the same population, temporally earlier or contemporary, or perhaps belonging to another social division. Far from being mere formal operations, these practices visualize the

³ For an overall reappraisal of Levi-Strauss’ narratological theory, see Ferraro (2001).

signs of tensions that, even in the simplest ethnological realities (we will shortly see an example), create conflict between social forces, cultural models or ethnic groups. This demonstrates how Lévi-Straussian theory offers valuable elements for those who intend to propose seriously *socio-semiotic* perspectives.

Lévi-Strauss needed a “transformation” concept that involved more than the comparison and analysis of textual divergences, beyond the line of succession or the diachronic dimension. The “transformations” to which he refers do not lie between a “before” and “after”, but rather between the one and the other’s *systemic contexts*. He found the most appropriate theoretical model to build on in the famous book on the morphogenesis of zoological species, *On Growth and Form*, by D’Arcy Wentworth Thompson (1952). From this book, great in every sense (the first edition is 793 pages, 1116 the second), Lévi-Strauss essentially used the chapter on the *Theory of transformations*, which is also the best-known part in general.

Thompson’s basic idea is that—in the study of the morphology of an animal species, in his case—we should take greater account of the integrity of the whole, instead of examining the parts as if they were independent components, a live body is indivisible. The goal, therefore, is to render scientifically evident the way in which living forms are related to one another as a whole, considering the observable differences between related species not in terms of a sum of individual modifications but as a process that informs the integral unit. For us, the decisive points are twofold: that the differences between entities of any type can in fact be expressed in a unified form, as the result of a single overall transformation which gives rise to a whole set of related changes; and that these processes entail the action of defined dynamic forces. Let us add that these “transformations”, according to Thompson, are not temporally oriented. In other words, they do not imply that a species is descended from another, or that one species is the result of a Darwinian modification of another. The transformative is by principle a reciprocal relationship, which can be thought of in one direction as much as in the opposite one. Lévi-Strauss uses precisely these concepts, but also ideally incorporates the use that Thompson had made of topological models. In order to create a visible and precise representation of his way of thinking, he proposed that the relations between similar species could usefully be displayed on a Cartesian coordinate system. Here you find, in fact, the more evident passage from the concept of a set of biological components to a properly systemic entity. Thompson shows (see the examples shown in Fig. 7.3) how the differences that seem ambiguous and complex can be instead referenced to simple phenomena, assuming you shift the focus from the objects to the coordinate system in which they are placed, and from which they are (mathematically, in this case) defined. The deformation of the coordinate system explains the consequent alteration of what is inscribed, so that a series of changes that we would have first identified at the level of the specific components becomes, in fact, aspects of a single overall transformation.

Whatever value that Thompson’s theory still has in the biology, I think we can say that the re-use of these concepts in the human sciences could have an even greater scope and significance. Topological models developed in mathematics come to anthropological studies, semiotics and the theory of narrative, through the helpful

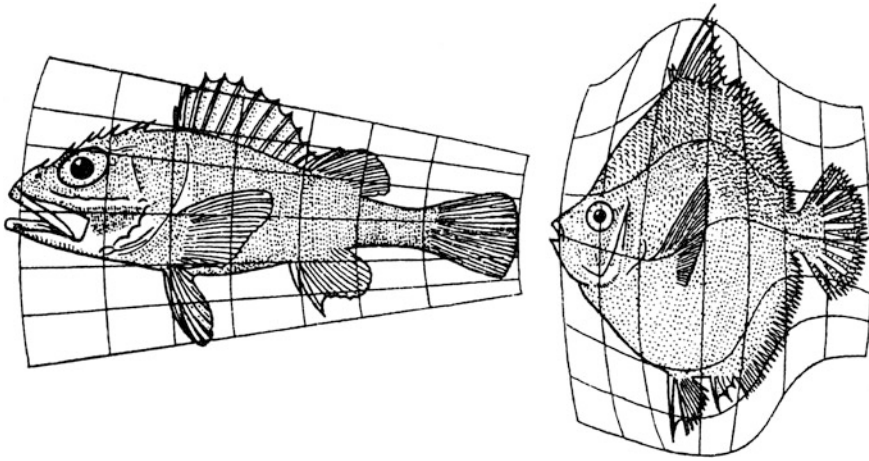


Fig. 7.3 A typical example from D.W. Thompson's *On Growth and Form*, p. 1063

filter of biology. Worth thinking about, in any case, is the fact that Thompson's conceptual innovation received much attention in the field of biological sciences, while it has gone largely unnoticed, and therefore unused in the field of semiotic research (perhaps more short-sighted, tending to be more dogmatic). The idea that the differences between observable objects (that is, in our case, between texts) can be much better defined and explained by returning them to the differences between the *reference systems*, is of fundamental interest, even if in this case we mean semiotic systems, not subject to mathematical descriptions and only metaphorically close to Cartesian systems.

Even here, the differences between the stories are interpreted as effects of the transformation of the containing field, or as a passage of the textual object through different containing fields, as we will see shortly in some examples. We must also stress in this respect (even though we cannot further develop this discourse here), that the shift of attention from objects to the system in which they exist also corresponds to a reintroduction of a Saussurean vision (accent on system rather than on the textual product) in a more effective and mature manner than either the excessively simple original, or the equally excessive shift to textual perspectives. The conceptual distinction between the coordinate system and the path that is inscribed inside it remains decisive, even if abstracted from its mathematical reference, confirming in another way the presence of two basic components: a generally static regulatory level and a dynamic and transformative procedural level.

It goes without saying that a story can hardly be represented in the form of Cartesian graph. Lévi-Strauss' typical use is rather that of textual tables, presenting what he calls "transformation groups", visualizing the links between stories that are in some way related, and often describing many differences as due to the effects of a primary transformation. We can therefore read the differences between mythical tales, for example belonging to two neighboring ethnic groups, not in terms of

differences in those *two particular stories*, but as traces of the transformational relationship that binds the two mythological systems. If one myth seems somehow to deform another, the deformation can be attributed to the underlying semiotic fields. The “semiotic fields” that I am referring to are not, of course, abstract entities of logical nature but socio-cultural realities, that correspond to alternative ways of viewing the world, symbolic systems in conflict with one another, behind which we can see the presence of ideologically antagonistic power centers. As in the case of Thompson’s animal species, we can also explain the form taken by the stories as dependant on the action of dynamic factors, almost the hint of a diagram of forces.

There is no need to emphasize that textual theory emerges greatly innovated, or that this perspective seems particularly pertinent precisely in that it no longer conceives of the cultural system as a sort of collection of statically and individually defined texts, but as a network of connected texts and textual portions. In this different perspective the generation of the texts is transversal, implemented by deformation and comparison, reaction and opposition. Since all textual content is related to relational reading, the difference, which in Propp’s model (and partly in that of Greimas) separates the formal or syntactic level from the content or variable components level, disappears. The formal dimension, rethought in terms of a relational plan and an active process, *invests all levels and components in the same way*. Nothing escapes.

7.6 Narratives in Conflict

Unfortunately, Lévi-Strauss, despite having left us many suggestions and directions, did not leave us a systematic analysis to satisfactorily illustrate these concepts. This was also due to his method, characterized by a strong centrifugal development, which led him to explore an increasingly wider set of texts and cultures. Personally, I have conducted a test study on one of the specific cultures and specific delimited mythological complexes studied by Lévi-Strauss, and at this point I find it useful to make a very briefly reference to this research,⁴ so as to not leave the reader lost in the generality of abstract concepts and models. The fact that we are addressing the Bororo myths, including the myth from which the grand construction of *Mythologiques* starts (the myths considered correspond to, in Lévi-Straussian numbering, M₁, M₂ and M₅),⁵ is superficially interesting. The fact that in this case there is a conflict between different symbolic systems that oppose each other within the same community is more relevant. We think of this kind of phenomenon as belonging to complex societies, but it can also be present in societies

⁴ The study is included in the second chapter of the third part of the Ferraro (2001) volume. In that research I resumed a part of Lévi-Strauss’ analytic material, uniting it with ethnographic information from other sources.

⁵ The analysis of these myths lies in the first chapters of Lévi-Strauss (1964).

we consider “simple”. Indeed, it is significant that the same missionaries who had contact with this population were puzzled by the contradictions that they encountered in indigenous beliefs, particularly with regard to the explanation of disease causes (as well as that of the origin of storms, which we will discuss in a little bit). Antonio Colbacchini (1925) suggests that there was in fact an overlap between an original belief system and another set of substantially foreign beliefs (and, it should be pointed out, institutions), probably imported from another tribe. We can therefore assume that we are faced with two different systems of semiotic coordinates in which stories are inserted that together make up the narrative heritage of a defined population. Even more interesting, however, is another consideration. The two symbolic and narrative systems that come into clear conflict in the Bororo mythological universe, despite sharing much textual construction material, reveal a profoundly, constitutively different nature.

Let’s center our attention on the question of causes of disease. Two myths in particular belong to what we recognize as the first of the two conflictual semiotic fields, one centered on the origin of watercourses, the other on the origin of diseases. These stories talk about mythical times characterized by a total absence of order, and later about the establishment of some kind of order, universal, cosmological, ethical and social at the same time. The era of the disorder is marked by incest, greedy people who do not share food with others, and by the absence of those waterways that organize the material and symbolic geography of the territory, and by the correlative absence of funeral rites, resulting in the reprehensible practice of keeping the bodies in pits dug under the huts. The creation of the waterways and the parallel establishment of burial rituals (in the water of the rivers, in fact) intervene to bring an order which is then supplemented by the establishment of a separate and corresponding kingdom of the dead. This kingdom will be entrusted to two village leaders belonging to one of the two *social halves* that compose the Bororo society, while the world of the living will be ruled by two village leaders belonging to the opposite *social half*. As you can see, the game of symbolic symmetries can skillfully cover what we would consider the givens of an asymmetry of power. As for the origin of the disease, this is presented as a result of antisocial behavior. A woman, after having caught a lot of fish, ate them immediately rather than sharing it with relatives. Her belly swells as a result, and when the woman returns to the village her body gives birth to every kind of disease.

These references bring us back to an obviously broader and very well organized system, with distinctions and symmetries, exchanges and reciprocal duties, lines of separation and regulated transition processes. Its hold on reality depends also on the ability to enclose the entire universe in a global model, including spiritual components. In fact the symmetrical relationship between world of the dead village leaders and world of the living village leaders is very significant, as well as the latter’s task to hold dance rituals in which they symbolically embody the dead. Symmetrically, even here, deceased members are impersonated from members of the opposite *social half*. The rules of incest are just as much part of this overall conception of the ordering of the real (forbidden to have any proximity with someone of your own *social half*), as is the explanation of the disease, seen as a

consequence of the breakdown of the mechanisms of mutual exchange that this worldview is based on.

To provide an idea of the syntagmatic arrangement of events, the *myth of Baitogogo* (M_2) describes how in ancient times there was a boy who had reached the age of initiation, but did not want to leave his mother. One day he secretly follows her in the forest, where he sees his incestuous betrayal with a man belonging to his own *social half*. The father kills his wife and rival and buries them in a pit dug under the hut. The child turns into a bird and inseminates a rapidly growing tree on his father's shoulder (notice this irruption of the vertical dimension, that appears hostile and a little out of place in this story). The man runs away from the village, and the tree is transformed, giving rise gradually to waterways. In this watery world, he finds the happy kingdom of the souls of the dead and creates the necessary ritual tools for funeral rites.

Other stories refer to a different perspective. What is known as *the myth of Geriguiguiatugo on the origin of storms* opens with a young man who, at the moment he was about to be initiated, follows his mother into the forest and rapes her. The boy's father (who is one of the two village leaders) seeks to cause the boy's death in various ways, but the boy escapes all trials. From the beginning, the stories seem to speak to each other from a distance, as if resuming and disproving the content of the other. For example, this is true for the symbolic element of water, which we saw occupy a fundamental place in the founding support of universal order in the stories of the first group. Our Geriguiguiatugo is instead immune to water, thanks to the support of birds or the ability to transform himself into a bird (just like the son of Baitogogo in the other story). But the ability to transform himself into a bird seems like a first reference to another social institution, that of the fearsome Bororo sorcerers, the *Bari*. And on this road we can come to understand that this story, in opposition to the previous ones, is supporting an alternative world view, in which the social order (symbolized by the rule of incest and placed on a substantially *horizontal* plane) is not only markedly diminished but particularly dissociated from the cosmological order and the *vertical* dimension, called on to connect the world of men to that of the spirits. In this second vision, for example, both storms and diseases are sent by spirits of dead sorcerers (who dominate the *world above*), as punishment for lack of respect, and therefore have no connection with issues of anti-social behavior. The end of this myth recounts, not by accident, how a storm puts out the village fires. Then the young Geriguiguiatugo, transformed into a deer, attacks his father and kills him. The story ends in this manner with the killing of the village headman, highest chief of the social order, by a stag, the animal in which it is believed that the dead sorcerers reincarnate. In addition, we find the establishment of the avenging power of the storms: two clear references to the sinister power of the *Bari*. The stance taken by this tale is therefore unquestionable.

The outline of each story, however, seems to take on real meaning only if it is seen as a polemic transformation of other stories. Even though we can not go into details, it should be emphasized that, if the myth of Geriguiguiatugo "is subjected to" the conceptual structure of the adversary's mythology and builds upon it, this is also true for the Baitogogo myth, that must create a place for a unique bird that

seems to appear as a sort of citation of the opposing story. We can speculate, in effect, that the comprehension of these stories requires the listeners to mentally compare the corresponding textual structures. In a sort of battle for the ownership of the traditional mythological nucleus, each party tries to include the opponent's themes and narrative configurations, so that both the "chief's" and the "sorcerer's" mythologies seem to reproduce common patterns, distorted and reorganized in order to respond to the symbolic coordinates that define the two antagonistic *semiotic fields*.

In essence, the "chief's" mythology outlines the logic of a world founded on a pervasive *symmetry*, a symmetry that is actually easy for the natives to find in their experience, starting with the fact that the social universe is clearly regulated by the symmetry between the two *halves* of which it is composed. How this reciprocity extends also to the *metaphysical* relationship between the living and the dead is rendered palpable by the participation in ritual dances, in which each person plays a deceased person from the opposite *half*. On the contrary, the system of stories and beliefs that support the power of the sorcerers is characterized by a strong asymmetry and by the decisive, terrifying controlling power that the spirits exert over the natives, and in particular on their health. The preeminence of the *vertical* dimension (from which the destructive water of the storms comes) is highlighted, together with a *subjective and individual* dimension. It is a distressing world, marked by an intersection of premonitory and expiatory tensions.

The conflict between the two different codifications of the world is in our eyes even more interesting because it confronts two very different narrative construction logics. The first follows modes typical of a pre-literate mythology, based on a play of analogical correspondences between the different aspects and levels of reality. The personal stories have a very limited *perspective* dimension. What matters is the perfect logical hold of the *map*, that the events placed "in mythical time" serve only to establish, consolidate and stabilize. Errors and shortcomings directly correspond to that which could unravel the system: leaving ones appointed position; not respecting symmetries and reciprocity. The regular *systemic grid* is exactly what must be safeguarded. The other rationale is presented as instead based primarily on a rift that distinguishes this all-encompassing grid into two distinct areas: the horizontal order of the social universe, acknowledged but delimited; and a more decisive order, vertical and supernatural, which plays on *emotions and subjective plans*, where the principle of reciprocity turns into revenge, error into sin. The harmonious, static games of multiple analogical correspondences typical of the myth, concede the field to narrative settings closer to those that we are more familiar with.

The study of the reciprocal transformational relationship between the stories included in the two respective semiotic fields is therefore doubly interesting, because in addition to showing how the myths (somehow like Thompson's famous fish) change their form, passing from one frame of reference to another, it also helps us observe the transition between two different modes of narrative construction. In as much as we can see in these allusions, the first mode, decidedly situated on the *map*, bets everything on the strength of the order of its own coordinate system, trying to avoid events that will disturb its regularity. The second argues instead that

the orders are numerous and hard to decipher, and that life is a *journey*, a set of actions that can be right or wrong, each of which involves consequences. The process, we would say, dominates the map. But the natives, to whom in all likelihood the relationship between the two systems in conflict is not so obvious, continue to repeat stories that seem to *objectively* resume, replicate content, vary episodes, as in a game of mirrors to which one can superficially assign a only formal value.

7.7 Aliens and Bohemians

Levi-Strauss' theory was not developed through the study of oral narrative texts by chance, where the continuous modification of the stories is of course facilitated by the absence of a written reference version. This does not mean, however, that it is not applicable to stories from our recent culture. In a recent research project (Ferraro and Brugo (2008), for example, I investigated the evolution (from the late nineteenth century to the beginning of this century) of stories and figures that were called on to symbolize *absolute evil*, such as vampires, monsters or aliens. In fact, it was possible to identify a coherent and potentially global variation logic, exactly as if the overall deformation of the cultural coordinate system had determined the parallel transformation of the stories, even in cases where the authors were sincerely convinced of *repeating them without changing anything*. This alteration, to give you an idea, is related primarily to the development that starts from the collocation of evil in an impersonal and external place, leading to the belief that we ourselves create our own monsters, indicating a relationship that is no longer separate but involved.

For example, if we consider the four films in the *Alien* series, directed by four different and important directors from 1979 to 1997, we find that the same story was basically told four times, changing gradually in relation to the cultural system in which it was inscribed. This phenomenon is conceptually very close to the most crucial aspects of the theory of transformations presented by Thompson in *Growth and Form*. Even though the four episodes of the saga maintain a consistent, common ideological position—a basic anti-establishment, anti-religious, and in its own way anti-capitalist attitude, hostile to any combination of scientific and commercial interests—an evolution occurs, which in some respects leads to a true reversal of the original symbolic structures. The relationships between these texts could indeed fit very well into transformational schemes used by Lévi-Strauss. This could include the figure of the alien. In the first film, the monster penetrates the human being in a sort of gruesome sexual act, reducing it from subject to a mere *object*, a mere instrument for its reproduction. In the end, changing gender and role, yet with an absolutely compelling transformative logic, the alien appears as the daughter generated by the protagonist. And this one, the protagonist of the story, is defined from the start as an *object*, who only in retrospect can access *human* status.

If we look carefully, we notice that it all depends on a shift of the plane of meaning. The placement of the 'evil' that we addressed earlier essentially changes,

and with it the conception of causal agency. There are no passive victims, but entities that are architects of their own condition. Once this is understood, it becomes clear that all of the transformations are clearly systemic, starting with the one that, while maintaining the reproduction of aliens through human beings as a fixed process, shifts the focus of attention from fertilization (passive, for the human being) to generation (active). There is a polarity change from *male to female*, which also corresponds, on the negative side, to the name change of the oppressive controller computer system from Mother to Father. Following this logic, we find a shift from the natural to the artificially built, from an identity given at birth to an identity actively acquired, from a negative to a positive perception of hybrid human/non-human entities. We shift from fear of the alien to fear of the human, from a simple and integral dread to an anxiety mixed with compassion and tenderness. We abandon the idea of a return to a “home”, understood as the comfortable world that we came from, for the arrival in a world that seems both our “own” and unknown, projected into a still unreadable future... We find ourselves in front of the transformation tables that fill the pages of Lévi-Strauss’ research on American mythologies. The narrated story repeats an almost obsessive formula, rewarding the viewer with the pleasure of repeatedly experiencing the same adventure. Yet the meaning of the story undergoes a sharp twist, as a result of changes in the containing framework, due to a sort of contraction that folds the *external* pole back on the *internal* one. This story, which had an important place in the collective imagination of the time, in short, gives us a clear example of the way in which textual forms undergo changes that can only be understood if seen as effects of a single comprehensive transformation, giving rise to a whole set of related changes. Moreover, this comprehensive transformation is in itself well explained as dependant on the action of defined cultural dynamics. What was difficult to grasp through the use of traditional generative semiotic methods, seems rather clear in the light of a theoretical model with a transformational and systemic approach.

I would like to close these reflections, however, by citing a case that is even more particular and intriguing, for our theoretical speculations.⁶ At the decisive moment of the transition from a somewhat tired nineteenth century to the triumphant modernity of the twentieth century (in 1896), an artist who was curious about everything new, open to international culture but at the same time undoubtedly linked to the romantic tradition, Giacomo Puccini, created *La Bohème*, which appears as both one thing and its opposite. The story is old and well known, coming from a successful comedy 50 years earlier. It speaks of a world, people and times long past, while resuming a model that is the epitome of a certain kind of stories. In fact it draws inspiration from the inexorably moving archetype, the literary *femme fragile*: pale and sickly, linked to cold and the moon, related to flowers and obviously ephemeral, Mimì is destined to unrelenting agony. The story, thanks to its setting in a bohemian attic where four young artists live, has all the necessary requirements to represent the triumph of romanticism. And yet, when it was

⁶ Reiterating briefly the findings of a larger study, cfr. Ferraro (2009).

presented, many perceived it as exactly the opposite: an astonishing break with romantic opera traditions, an unprecedented concession to the new revolutionary style of realism at all costs. The judgments of the time are striking: for some the story is cloying like the music that accompanies it; for others it is a miracle of fine complexity; for some it is a backward and trite melodrama; for others still it is surprisingly sophisticated and innovative. It cannot even be said that the judgments of a certain kind can be attributed to conservative critics and others to liberals, because the opinions are mixed in a quite symptomatic confusion.

Puccini developed the story with the two authors of the text, who, not surprisingly, were also twofold in nature. One, Giuseppe Giacosa, was a classic and elegant man of letters, while Luigi Illica was an irregular and innovative poet. The story was created through endless bickering and negotiation, cut through with ellipses, narrowed to four flashes isolated in time. Therefore the story ends up perfectly ambiguous, and the figure of the protagonist is permanently unreadable. On the one hand, the work stands as a text that is properly inscribed in nineteenth-century culture, but on the other, it is also readable as a venomous parody that takes distance from nineteenth-century culture, fully set in twentieth-century models. In this case, we can truly say that the text exists essentially as a remake, as a citation of a way of feeling and as a transformation of other texts, which at the same time re-plays and rejects, perpetually suspended between moving sentiments and cynicism. Do the two protagonists really live a touching love story, cut short by an incurable disease? Is Rodolfo really a talented undiscovered writer, taken by his own poetic inspiration? Or are they instead two seedy characters? Could it not be that Rodolfo is a mediocre, unreliable, and distracted man; unable to care for the woman he claims to love, aware of his own literary failure, parked in an attic while he awaits an inheritance from his rich sick uncle? Couldn't Mimi be a frivolous girl, ready to crawl into bed with an old and wealthy man, in order to leave the miserable attic to which she returns only when she is already dying? The two truths, with the two opposing identities of the protagonists, are both present. The spirit of the past and the spirit of the future share the same spaces and the same gestures, even the music is both moving and anti-naturalistic. The viewer can perceive everything as terribly trite, or as surprisingly new and alienating. Puccini created, in essence, a kind of *meta-text*, built on "romantic" stories and ways of feeling. Properly, neither the old world of bohemian attics nor the new world that should replace it is represented. More precisely, the *passage* from one to the other is staged, seizing the moment in which the one is still present and the other is not yet fully established. What in short is shown is the change as such, the jump that leads from a cultural system to another, as well as the problem of mutual illegibility that this entails.

It is evident, I think, the pertinence of this example to our discussion. The fact is that the transformational relationship between one fish and another does not pose cultural problems, but things are very different when we talk about the passage of stories from one semio-cultural system to another. *Bohème* is, of course, a particularly fascinating case, but far from extraordinary. Indeed, the most interesting aspect of using Thompson's model in a narratological context, is perhaps that of focusing attention on those texts that, rather than definitely belong to one or another

system, pose themselves *crosswise* so to speak, simultaneously settled in multiple reference systems. They present themselves, of course, as complete and defined entities and are therefore perceived *as individual objects*, but in fact possess multiple identities, dependent on the different reference systems in which they are inscribed. The use of Thompson's model allows us to imagine fascinating extensions of semiotic methodology, helping us intuit how the study of relationships between systems could be more effective and valuable than an analysis of objects conceived as such. We can pay the price of giving up objective and immanent definitions of textual constructs, in order to better understand the dynamics of change and the interaction of the systems of semiotic coordinates that ultimately define their meaning.

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