NARRATIVE SCHEMA

PSYCHOLOGICAL USE VALUE

Narrative has existed in every known human society. Like metaphor, it seems to be everywhere: sometimes active and obvious, at other times fragmentary, dormant, and tacit. We encounter it not just in novels and conversation but also as we look around a room, wonder about an event, or think about what to do next week. One of the important ways we perceive our environment is by anticipating and telling ourselves mini-stories about that environment based on stories already told. Making narratives is a strategy for making our world of experiences and desires intelligible. It is a fundamental way of organizing data.¹

Recently narrative principles have been found in the work of a wide range of professionals, including attorneys,² historians,³ biographers, educators, psychiatrists, and journalists.⁴ This demonstrates that narrative should not be seen as exclusively fictional but instead should merely be contrasted to other (nonnarrative) ways of assembling and understanding data. The following kinds of document exemplify some nonnarrative ways of organizing data: lyric poetry, essay, chronology, inventory, classification, syllogism, declaration, sermon, prayer, letter, dialectic, summary, index, dictionary, diagram, map, recipe, advertisement, charity solicitation, instruction manual, laundry list, telephone directory, birth announcement, credit history, medical statement, job description, application form, wedding invitation, stock market report, administrative rules, and legal contract. The relevance and connection of narrative, or nonnarrative, to our world – how it may be used in that world to accomplish a goal – is a separate issue concerning its “mode of reference” as either fiction or nonfiction.

As a starting point and for simplicity, then, I will divide texts into four basic types: narrative fiction (e.g., a novel); narrative nonfiction (e.g., history); nonnarrative fiction (e.g., many kinds of poetry); and nonnarrative nonfiction (e.g., essay). The boundaries among these types are not absolute but relative to the questions one wishes to ask
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about the data that has been organized. The fact that certain poetry, for example, is nonnarrative does not mean that, considered at a fine grain, it may not also exhibit some aspects of narrative organization (e.g., defining a scene of action and temporal progression, dramatizing an observer of events). One should not allow the usefulness of broad categorizations (poetry, novel) to obscure the ways in which a narrative strategy may be applied successfully by a reader in comprehending certain aspects of some texts; or, for that matter, to obscure the ways in which nonnarrative reading strategies may penetrate narrative texts at certain levels.

It is also important to distinguish between two broad fields in which a given narrative may function. In one context, it can be said that a narrative must be consumed as a material and social object, and must respond to an agenda of community issues. In this context, a narrative acquires labels of immense variety in order to arouse the interests of community members. These labels are the pathways on which it moves through society by being bought and sold, or exchanged. In a second context, however, a narrative can be said to exist for only one person at a time. Engaging intimately with a perceiver, narrative enters thought itself, competing and jostling with other ways of reacting to the world. Thus narrative, at least initially, may be analyzed in two different ways. From one angle it appears as a social and political object with an exchange value arising from its manufacture as an object for a community; from another angle it appears as a psychological object with a use value arising from perceptual labor – from the exercise of the particular skills possessed by a member of that community. Ultimately, of course, these two values are not independent. One may study the psychological dimension of exchange (e.g., commodity fetishism) and the social dimension of use (e.g., propaganda). The particular social ground which defines an individual's language and horizon of action cannot be completely divorced from that individual's language competence and abilities. Narrative depends on an unspoken, permanent agenda of topics in a community which, in turn, justifies the community activities for which abilities must be found and developed in individuals. In studying how a narrative is assigned labels in order to be exchanged and used, one is studying basic human proficiencies: skills employed in manufacturing and selling a material object as well as perceptual skills employed in realizing a use for the object.

In spite of the copresence of exchange value and use value, I will tentatively separate the two contexts in order to better highlight the nature of a relative autonomy where each value provides a ground for the other. This will also enable me to limit the terms of discussion so as to begin to talk about how narrative functions in our world. It is the aim of this book to examine the use value of narrative, specifically the psychological dimension of use. I wish to examine how we come to know that something is a narrative and how a narrative is able to make intelligible our experiences and feelings. I will argue that it is more than a way of classifying texts: narrative is a perceptual activity that organizes data into a special pattern which represents and explains experience. More specifically, narrative is a way of organizing spatial and temporal data into a cause-effect chain of events with a beginning, middle, and end that embodies a judgment about the nature of the events as well as demonstrates how it is possible to know, and hence to narrate, the events.

Although it will often be convenient to use the word "narrative" to refer to an end result, or goal, one should not forget that this final product ("here is a narrative") arises from a particular and ongoing (narrative) method of organizing data. Thus the word "narrative" may refer to either the product of storytelling/comprehending or to its process of construction. The first four chapters will begin to specify narrative in both these senses while chapter 7 will consider how a narrative relates to the real world in a "fictional" or "nonfictional" manner.

If narrative is to be considered as a way of perceiving, one still needs to specify the way. Further, one needs to specify what is meant by "perceiving." In general, my approach will be to allow the notion of "perceiving" to remain quite broad and elastic, capable of referring to any one of a range of distinct mental activities. When sharp lines must be drawn, I will use special concepts. Thus the word "perception" will be used in this book to point toward any of the following: a "percept" derived from reality; a preconscious assumption being made about reality; or an acknowledged fact of physical reality. The word "perception" may also be used to refer to an intuition (e.g., perceiving that color seems to be intrinsic and permanent to an object while sound appears to come from an object, to be created and contingent); or, it may refer to a propositional conclusion that a perceiver has reached about sensory perception through a process of reasoning; or, it may simply refer to an attitude we adopt when confronted by something that is a representation of something else. Some theories would classify the latter as cognition rather than perception. As we shall see, particular theories of narrative will divide up the operations of human consciousness in various ways to emphasize different abilities. Thus the word "perception" in this book will earn its exactness only through the finer discriminations made by particular theories. In the next chapter, for example, I will begin to refine the notion of "perception" by introducing a fundamental distinction between "top-down" and "bottom-up" modes of perceiving.
LOGICAL TRANSFORMATIONS IN NARRATIVE

What way of arranging data is characteristic of narrative perception? We readily distinguish narrative from other experiences even if we cannot say how the judgment is being made, just as we may not be able to say why something counts as a "game" or a "grammatical" sentence. Intuitively we believe that a narrative is more than a mere description of place or time, and more even than events in a logical or causal sequence. For example, an account of the placement of objects in a room is not a narrative. Similarly, though a recipe involves temporal duration and progression ("bake until golden brown . . ."), it is not normally thought of as a narrative (the story of a pie). Nor does a sequence of actions become a narrative by being causal, completed, or well-defined; for example, a planet orbiting the sun, the construction of a syllogism, the recitation of an alphabet, or the actions of departing, traveling, and arriving do not by themselves form a narrative. Instead, narrative can be seen as an organization of experience which draws together many aspects of our spatial, temporal, and causal perception.

In a narrative, some person, object, or situation undergoes a particular type of change and this change is measured by a sequence of attributions which apply to the thing at different times. Narrative is a way of experiencing a group of sentences or pictures (or gestures or dance movements, etc.) which together attribute a beginning, middle, and end to something. The beginning, middle, and end are not contained in the discrete elements, say, the individual sentences of a novel but signified in the overall relationships established among the totality of the elements, or sentences. For example, the first sentence of a novel is not itself "the beginning." It acquires that status in relationship to certain other sentences. Although being "physically" first in some particular way may be necessary for a "beginning," it is not sufficient since a beginning must also be judged to be a proper part of an ordered sequence or pattern of other elements; the elements themselves are not the pattern. Narrative is thus a global interpretation of changing data measured through sets of relationships. We must now consider the nature of this overall pattern of relationships.

Tzvetan Todorov argues that narrative in its most basic form is a causal "transformation" of a situation through five stages:

1 a state of equilibrium at the outset;
2 a disruption of the equilibrium by some action;
3 a recognition that there has been a disruption;
4 an attempt to repair the disruption;
5 a reinstatement of the initial equilibrium.

These changes of state are not random but are produced according to principles of cause and effect (e.g., principles which describe possibility, probability, impossibility, and necessity among the actions that occur). This suggests that there are two fundamental kinds of predication in narrative: existents, which assert the existence of something (in the mode of the verb "to be"), and processes, which stipulate a change or process under a causal formula (in the mode of such verbs as "to go, to do, to happen"). Typical existents are characters and settings while typical processes are actions of persons and forces of nature. But there is more: the changes of state create an overall pattern or "transformation" whereby Todorov's third stage is seen as the "inverse" of the first and fifth stages, and the fourth stage the "inverse" of the second (since it attempts to reverse the effects of the disruption). The five stages may be symbolized as follows: A, B, -A, -B, A. This amounts to a large-scale pattern (repetition, antithesis, symmetry, gradation) among the causal relationships and is temporal in a new way; in fact, some theorists refer to such patterns as a "spatial" form of narrative. This emergent form, or transformation, is a necessary feature of narrative because, as Christian Metz observes, "A narrative is not a sequence of closed events but a closed sequence of events."11

Consider as an example the following limerick:

There was a young lady of Niger
Who smiled as she rode on a tiger.
They returned from the ride
With the lady inside
And the smile on the face of the tiger.12

Analyzing the limerick as a narrative using Todorov's transformations, results in the following global structure:

There was [once upon a time]:

A smile
B ride
-A [swallowed: a horrible pleasure?]
-B return
A smile

[which goes to show that . . .]

The limerick illustrates several important points about Todorov's transformations. First, the structure does not represent directly the actual processing of the narrative by a perceiver but only its conceptual or logical form after it has been interpreted. The reader discovers that the narrative did not begin with "lady," or "youth," or the place of "Niger," as its initial term ("A") because none of those beginnings will yield a macro-description of the required kind. Taking "smile" as an initial term, however, produces a sequence of transformations that will
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embrace the limerick as a whole (A, B, -A, -B, A). Nevertheless, this does not yet explain why a reader may smile at the limerick. The humor of the limerick resides in the sudden realization of what must have happened, of what was omitted from its proper sequence in the telling. The absence of the woman at the end answers to a gap in the chronological structure of the telling of the event. Todorov's middle stage—a “recognition” of the disruption—already hints that the actual process of moving from ignorance to knowledge will be of central importance to our experience of narrative. Not only characters and narrators, but readers are caught up in ways of perceiving and knowing. These crucial issues will need to be addressed in more detail and will be the topic of chapters 3 and 4.

Second, Todorov's structure does not represent the entirety of our comprehension of the narrative aspects of the limerick. The reader must supply an epilogue or moral to the story which justifies its being told (which goes to show that...). This involves a rereading and a reassessment of some of the meanings—a process facilitated in the first line by assuming that reference will be partially indeterminate in the manner of a fiction (once there was a time...). Eventually the reader must rationalize how he or she might know such an exotic world within his or her preconceptions of an ordinary world.

Finally, although this narrative is arranged to focus attention on what Todorov calls the inversion of the initial equilibrium (the middle cause which is the opposite of smiling, i.e., being swallowed, -A), the logical structure cannot account for all of the inferences that the reader must draw in discovering the nature of the “inversion” which turns out to have an unexpected literal dimension (ingestion) as well as a number of metaphorical dimensions. What qualifies the inversion as an inversion? The reader must make inferences in spite of (and also because of) being misled by the verse. Consider, for instance, the deception of the phrase “they returned” in line 3; and the fact that the lady's ride is enlarged by the word “returned” to mean that she had departed on a trip, even if only a short trip; and the semantic play with the preposition on, even if only a short trip. The smile of the tiger (we will examine more fully the significance of deception in this line; the end of her trip “rides on” the tiger and the smile is not hers but a smile of the tiger. The implications of the use of causation and metaphor in the narrative extend at least to the reader's knowledge and beliefs about female extend at least to the reader's knowledge and beliefs about female sexuality, pleasure, oral gratification, desire, risk and trust; and perhaps also to the consequences of being “away from the home.”

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sense in which an inversion must be discovered to be appropriate through the operation of processes which are not all “logical” in the same ways?

Before expanding our idea of narrative form, it may be useful to contrast the above limerick with a poem which is nonnarrative:

Roses are red
Violets are blue
Sugar is sweet
And so are you.

For reasons to be made clear shortly, I will refer to the structure of this poem as a catalogue, not a narrative. For now it is enough to notice that the verb “to be” has been used four times in an attributive and atemporal sense (as in the extreme case of identity, “a rose is a rose”). The reader does not interpret the poem as implying one or more temporal adverbial complements, such as, “Roses are red at noon, violets are blue at two.” No temporal logic connects the redness of roses with the blueness of violets and the sweetness of sugar and “you.” Instead the reader constructs a pair of categories which have no “tense”: one which contains two flowers, and another which contains both sugar and the reader himself or herself (“you”). The “causation” at work in the poem—producing the conclusion signaled by “and so”—is asserted to be as logical, natural, and timeless as grouping roses and violets together as flowers (or, perhaps, as objects having color). The rhyme (blue—you) brings together the two categories and implies that the logic of forming the flower category is as certain as the logic of grouping sugar and “you.” Thus although both the poem and the limerick compare a person's desirable qualities to something which may be tasted or eaten, the poem is not a narrative because its conceptual structure does not depend on a definite temporal progression which ultimately reveals a global pattern (e.g., A, B, -A, -B, A). Instead the poem is based on forming simple pairs of things with the final intimation—an epilogue of sorts—that “you,” the reader, and an implicit “I,” the author, should also form a pair.

I would now like to imagine for a moment something incredible. Suppose that the limerick that tells the story of the woman riding on the tiger contains an interlude where the tiger sings for the woman the poem, “Roses are red.” In one sense, the narrative has been interrupted by a nonnarrative, catalogue sequence. In another sense, however, there has been no real interruption, for both the narrative limerick and the nonnarrative poem develop a connection between taste and beauty in which the sexual drive is represented as an appetite that devours. Is the limerick—poem then a hybrid? Does the narrative dominate the catalogue, or is the narrative merely an excuse for a clever song? I
believe that there is no definitive answer to what it really is. Rather, the answer will depend upon the purpose in asking the question: within what context must an answer be framed, how narrowly must the text be construed, which meanings are most important, and so forth. Recognizing the complexity and dynamism of a text is usually more important than assigning a final, decisive label to it.

Rick Altman has drawn attention to the importance of certain catalogue systems within narrative texts. He speaks of narrative as possessing a “dual focus” where one focus is composed of a chronological and causal progression (the “syntagmatic”) while the other is composed of a multitude of binary oppositions among elements that are “static” and that exist outside the time of the causal progression (the “paradigmatic”). A textual element (shot, scene, aspect of style, character attribute, theme, etc.) that is functioning paradigmatically makes a pair not by calling forth its “effect” in a linear fashion, but by suggesting a parallel with something else, a similarity or contrast. Paradigmatic pairing (or, what I have described as a “catalogue”) creates collections of objects organized according to “conceptual” principles. Altman finds that in the genre of the American musical film, a special kind of paradigmatic focus, designed to show that opposed sets of categories are not mutually exclusive, overwhelms the causal, frame story.

For present purposes, I am less interested in reaching a definitive judgment about the precise nature of a text than in describing the different types of organization that underlie a reader’s experience moment by moment. Accordingly, I will construe Altman’s notions of “duality” and “focus” more narrowly and shift them to a new realm. I will also introduce new terms that divide up the field of study in a somewhat different way, allowing for finer distinctions. As we shall see, the reason for such a shift in terminology is correlated with a change in the object of study: an attempt to specify the formal logic of narrative gives way to an examination of the interaction of narrative with a perceiver—a pragmatism of comprehension.

PRAGMATIC FORMS IN NARRATIVE

The notion of narrative as a sequence of logical “transformations” brings together two concerns: an awareness of pattern as well as purpose. These concerns may be seen in the double meaning of the English word “design,” which may signify either a formal composition, an “arrangement” of elements (e.g., “The design utilized bright colors”), or an “intention” (e.g., “Her letter ended in mid-sentence by design,” “He has designs on her property”). The importance of the transformations for Todorov would seem to be the suggestion that some (designing) forces have intervened in the five stages of narrative to shape the final pattern (design) which turns out to be a reshaping of the initial state. Thus something more than describing categories, and more even than labeling cause and effect, is needed to create a narrative; however attenuated, an element of choice, probability, or purpose must be seen by the reader to promise through its transformations an answer as to “why” or “when” something is or could be other, and “how” it returns to being the “same.” One might say that the reader’s discovery of this overall process at work in narrative is a mode of causal reasoning about human affairs which is distinct from merely labeling a cause, or assessing the probabilities of a local action. In this way, one may think of narrative as a mechanism that systematically tests certain combinations and transformations of a set of basic elements and propositions about events (“A” and “B” in my examples). The aim is not simply to enumerate causes, but to discover the causal efficacy of an element—its possibility for being, and for being other, as the reader may desire.

Many writers have argued that the logic underlying narrative is more complex than Todorov’s pattern (A, B, -A, -B, A). A central concept like “transformation” may be understood in different ways, or new concepts may be developed in an attempt to interrelate narrative pattern and purpose. Claude Lévi-Strauss, Claude Bremond, and A.J. Greimas claim to be extending and refining the insights of Vladimir Propp, who defined the logic of the Russian wondrous in terms of seven basic “spheres of action” (character roles), thirty-one “functions” (types of action), certain “moves” (fixed strings of functions), and “auxiliaries” (transitions). Lévi-Strauss defines pairs of opposed “mythemes” while Greimas tightens narrative logic even further by defining its elements in terms of the “square of opposition” used in traditional logic to classify categorical propositions. For Greimas, narrative becomes a special working through of contraries, subcontraries, converses, and contradictories. Like Todorov’s five-part scheme, the goal of these methods is to describe the large-scale symmetries that draw together and unify the parts of narrative.

All of these approaches have been influential and have produced important results with certain texts. Nevertheless, the linguistic theories from which they have drawn many concepts have in the intervening years been modified or superseded. Also, formal logic has been shown to have limitations as a descriptive model for human thought. More recent models of human language emphasize the dynamics of a perceiver’s interaction with a text—i.e., pragmatic situations—by studying a perceiver’s use of “fuzzy” concepts, metaphorical reasoning, and “frame-arrays” of knowledge. Correspondingly, there has been a general tendency to move away from the linguistics of Ferdinand de Saussure as well as away from an exclusive reliance upon formal and logical schemes, such as Noam Chomsky’s deductive rules which in many
cases do not seem flexible enough to capture the wide-ranging, often speculative aspect of interpretation. The stakes remain high, however, as Wallace Martin reminds us: “Identification of universal narrative patterns would seem to tell us not just about literature but about the nature of the mind and/or universal features of culture.” The goal of a pragmatics of narrative is to achieve a psychological description that can explain how a perceiver is able to interpret a text as a narrative moment by moment.

One might begin to relax a strictly logical definition of narrative so as to include pragmatic aspects by pursuing the definition offered by Stephen Heath in his analysis of Orson Welles’s film, *Touch of Evil* (1958):

A narrative action is a series of elements held in a relation of transformation such that their consecution determines a state S′ different to an initial state S; thus: S\(\rightarrow\)S\(\rightarrow\)S\(\rightarrow\)S\(\rightarrow\)S\(\rightarrow\)S\(\rightarrow\)S′ . . . A beginning, therefore, is always a violence, the violation or interruption of the homogeneity of S . . . The narrative transformation is the resolution of the violence, its containment – its replacing – in a new homogeneity. “Replacement” there has a double edge: on the one hand, the narrative produces something new, replaces S with S′; on the other, this production is the return of the same, S′ re-places S, is the reinvestment of its elements. Hence the constraint of the need for exhaustion: every element must be used up in the resolution; the dispersion the violence provoked must be turned into a re-convergence – which is the action of the transformation, its activity. Ideally, a narrative is the perfect symmetry of this movement.

In *Touch of Evil* the initial violence is literal as a car explodes in flames interrupting a kiss between lovers. Heath notes that when those lovers kiss at the end of the film, it is “the same kiss, but delayed, narrativised.” For Heath, narrative is a precise series of displacements, often driven by the logic of the disclosure of an enigma that acts to replace an initial situation by returning to it. For Raymond Bellour the search for such a “perfect symmetry” in the form of repetitions and near repetitions (“rhymes”) in the text becomes almost obsessive, extending from global patterns (where one is reminded of Todorov’s precise transformations) down to the smallest micro-sequence of action.

But symmetries are not Heath’s primary concern in defining narrative. He is anxious to show how some elements inevitably escape the tight narrative structure and become a residuum, an “excess,” revealing hidden psychic and ideological processes at work in the text. Narrative exists because of these hidden processes and is an explicit attempt to master them. For Heath, the causality of narrative events in a plot is merely a pretext for larger transformations which point to our everyday beliefs about ourselves and our world, and the ways in which we formulate (or repress) those beliefs. Heath is less interested in discovering a stable logical structure than in uncovering symptoms of belief, modes of persuasion, and values which are not at all logical in the way conceived by Todorov and Greimas. Narrative thus acquires the form of an argument, leading to such definitions of it as the following:

a connected sequence of . . . statements, where “statement” is quite independent of the particular expressive medium.

( Seymour Chatman)

A closed discourse [i.e., a sequence of predicative statements] that proceeds by unrealizing a temporal sequence of events.

(Christian Metz)

a . . . recounting [of] a chrono-logical sequence, where sequence is taken to be a group of non-simultaneous topic-comment structures the last one of which constitutes a modification of the first.

(Gerald Prince)

Still more generally, Sergei Eisenstein envisioned an “intellectual cinema” in which filmic “reasoning” would enrich narrative and produce a synthesis of art and science.

Prince’s notion above of “modification” is quite broad and seems to include spatial, temporal, causal, and “zero” modifications as well as operations of inversion, negation, repetition, manner, and/or modality. The notion of narrative as a series of argumentative “statements” (i.e., propositions analyzable as a comment on a topic) that are suitably modified and independent of their manifestation in words, pictures, gestures, or other materials does capture something important about the phenomenon. Still, the notion of a narrative “statement” may have relinquished important detail for a generality bordering on vagueness. What, for example, are the limits of a “modification” to a “proposition”?

A similar problem of vagueness attends the almost obligatory discussion of the so-called “minimal narrative” which takes as its starting point E.M. Forster’s distinction between chronology and causality. The following sentences illustrate the grounds of the debate, though theorists differ in some reasons for their conclusions:

These do not qualify as narratives:

1a. The king died and then the queen died [chronology].

2a. Mary ate an apple.

These are narratives:

1b. The king died, and then the queen died of grief [causality].

2b. Shirley was good then she drifted into a life of crime.
In this debate there is an implicit belief that narrative is built up from a small set of basic units, or particles (e.g., topics, comments, and modifications), by addition and subtraction. The approach is reminiscent of the attempt by “analytic structuralism” in the field of psychology to account for human perception by positing certain basic “sensations” together with simple laws of combination. The idea of narrative has become so impoverished by the search for minimal, logical conditions in a single sentence that it is unclear what qualities might attach to the more typical narratives which are exchanged and used in social arenas. Some writers, perhaps impressed by the pervasiveness of narrative thinking in everyday life and despairing of the attempt to find a bright line between narrative and non-narrative, conclude that virtually everything is narrative. For instance, the following is deemed by one writer to be a narrative:

(3) Once upon a time there was a person. The End.31

Another writer concludes that “even mathematical proofs, with one step following another toward an inevitable conclusion, exhibit something of the dynamics of plot and closure.”32

I believe that what is needed is a description of narrative which avoids a strictly “logical” definition of minimal conditions even if supplemented by more expansive mechanisms like Todorov’s transformations. Such a new description must also be more precise than discovering a set of “statements” which reveal pragmatic beliefs, or make arguments. One way to accomplish this goal is to concentrate on the cognitive processes active in a perceiver during his or her comprehension of narrative in an actual situation. The issue then focuses on how an overall narrative pattern may be discovered, or imposed, in the very act of perceiving. How do we manage to learn from narratives, moment by moment, and how do we learn to make our own narratives?

For Dan Lloyd the study of narrative comprehension is the study of a primary mode of thought quite distinct from other modes, such as “rational logic.” He argues that the use of a “narrative logic” in solving problems explains why persons routinely fail certain tests of deductive and inductive reasoning. Thinking narratively has important advantages in the world and Lloyd calls for a new science – “psychonarratology” – to examine the psychological foundations of narrative reasoning. The new science would be built upon concepts derived from the general study of narrative – “narratology” – and would include the work of such writers as Todorov, Bremond, Greimas, and Prince.33

In order to focus on mental processes working in real time, one must begin with the fact that there are rather severe capacity limitations both on an individual’s transient memory, which registers sensory information, and on his or her short-term memory, which is able to sort and classify only recent information. Short-term memory can manipulate only about five to nine “chunks” of data. (The word “red” will count as one chunk of data whereas the letters “red” will count as three.) Thus it is primarily intermediate-term memory (sometimes called “working” memory) and long-term memory that must be carefully studied, for these are the sites of special mental operations that play decisive roles in redescribing data and recognizing global relationships, whether narrative or otherwise. Moreover, these special operations of working and long-term memory are not directly experienced by a perceiver, since “consciousness” has many of the limitations of short-term memory.

The use of working and long-term memory by a perceiver are notable examples of the fact that sensory perception (transient memory) cannot be considered apart from other types of mental processing. Experiments have demonstrated that what perceivers remember from a narrative, as well as what they forget, is not random but dictated by the specific method used in searching for global properties. This method of search guides the acts of encoding, comprehending, storing, retrieving, and “remembering” the features of narrative. These experiments support a basic premise of cognitive psychology, namely, that the classifications which a person imposes on material at the time of its processing will limit the ways in which the material can be subsequently accessed and used in problem-solving.34 (Much of a person’s childhood experience is lost because it is classified in ways that are incompatible with the classifications used by an adult to sort and retrieve experience.) I will refer to the specific method which searches for a narrative pattern as a narrative schema.

The notion of a schema is basic to much of cognitive psychology. A schema is an arrangement of knowledge already possessed by a perceiver that is used to predict and classify new sensory data. The assumption underlying this concept is simply that people’s knowledge is organized. The fact that one often knows immediately what one does not know testifies to the structured nature of our knowledge. As Jean Mandler states, “when we know something about a given domain our knowledge does not consist of a list of unconnected facts, but coheres in specifiable ways.”35 A schema assigns probabilities to events and to parts of events. It may be thought of as a graded set of expectations about experience in a given domain. What we implicitly know about a
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"room," for example, is much more than either the "connotations" of that word or the properties of an actual room that we may remember. We know still more about a "living room." The vague sort of mental pictures that we may summon of a "room" or a "living room" are not unlike the operation of a schema in representing an ordered set of associations and expectations that are used to judge certain experiences. A schema, of course, is more complex than a given word because it interacts with the environment. A schema tests and refines sensory data at the same time that the data is testing the adequacy of the (implicit) criteria embodied in the schema. The interaction of schema and data creates a perceiver's recognition of global patterns characteristic of that data. "Meaning" is said to exist when pattern is achieved.

A schema does not determine its object through necessary and sufficient conditions. It is a hierarchical arrangement which ranges from tentative and contingent conclusions about data (including "default" specifications) at one extreme to increasingly general and invariant specifications governing a class of data at the other extreme. Thus when "meaning" has been attributed to something through the use of a schema, the meaning has a probabilistic quality which incorporates assumptions and expectations rather than an absolute quality defined by necessary and sufficient conditions.

A schema is only one type of mental structure and a narrative schema is only one of many types of schema used to solve a wide range of everyday problems. Nonnarrative types of schema (some of which will be discussed shortly) may be applied to a narrative text; conversely, a narrative schema may be applied quite generally to process data and (as we shall see) may even be used to generate sense from "nonsense" data.

What sort of schema is responsible for the recognition of narrative patterns? Nearly all researchers agree that a narrative schema has the following format:

1. introduction of setting and characters;
2. explanation of a state of affairs;
3. initiating event;
4. emotional response or statement of a goal by the protagonist;
5. complicating actions;
6. outcome;
7. reactions to the outcome.

Such a schema helps to explain some remarkable facts about narrative comprehension.

One of the most important yet least appreciated facts about narrative is that perceivers tend to remember a story in terms of categories of information stated as propositions, interpretations, and summaries rather than remembering the way the story is actually presented or its surface features. It requires great effort to recall the exact words used in a novel or the exact sequence of shots, angles, lighting, etc. used in a film. The reason is that features of the "surface structure" of texts are typically stored only by recency in so-called "push-down" stacks where new elements are continually being added at the boundary, pushing the older elements farther away. When we say we remember a film, we do not normally mean that we remember the angle from which it was viewed in the movie theater, or the exact angles assumed by the camera in a scene. Rather, when we speak of comprehending something, we mean that our knowledge of it may be stated in several equivalent ways; that is, our knowledge has achieved a certain independence from initial stimuli. In comprehending a visual object in film, for example, our knowledge of the object is such that we might imagine moving about within the space and assuming various angles of view, without thereby altering the object known. We know the object when we know how it may be seen regardless of the position from which it was actually seen. The object thus acquires an "ideal" or "abstract" quality. It should be mentioned that knowing how the object may be seen is very nearly imagining an object that is not in view at all. This suggests that a theory of narrative comprehension will be incomplete without parallel theories of metaphor (because something new may be standing in for an original experience), and of fiction (because what is new may refer initially to the nonexistent).}

There are many other remarkable facts about narrative comprehension. Information from a text is sorted and measured by a schema against other kinds of knowledge base. The result is that certain information in a narrative is elaborately processed and assigned to a hierarchy in working memory according to relative importance while much else is discarded. The "value" of information increases according to its improbable so that typical and probable elements - so-called "unmarked" elements of a paradigm - carry the least amount of information. The more typical the information is for a perceiver, the less well it is recalled for it is already implicit in a guiding schema. Events in a text are therefore marked as salient and acquire special significance because of expectations defined by the internal order of a schema.

Furthermore, complex propositions tend to be formed in memory (and reading time slows) when "boundaries" in the text are perceived to correspond to the segmentation provided by a schema. The reason is that story comprehension involves the continuous generation of better-specified and more complicated expectations about what might be coming next and its place in a pattern. Thus a perceiver will strive to create "logical" connections among data in order to match the general categories of the schema. This will involve a mental rearrangement of
temporal sequences in a text. These new macro-propositions concerning global relationships among data are stored in memory and represent the "gist" of the narrative. In this manner a perceiver uses a schema to automatically fill in any data that is deemed to be "missing" in the text.41

There are many ways that a text may disrupt a perceiver’s expectations. Unclear character “goals” and “inverted” order in a text require increased processing time because of a necessity to experiment with various classifications of the data within a schematic framework. Also, unexpected information can cause a reorientation of the schema in order to reclaim the important from the superficial. Comprehension slows when explicit propositions constructed earlier must be reactivated (cf. the notion of "retrospective" temporal order in chapter 2); or when previous inferences are indirectly disconfirmed (e.g., by a pattern of events rather than by explicit statement); or when a perceiver must make novel inferences. Finally, the limitations of working memory may be exploited in order to accentuate the so-called "fluctuating existence" of diegetic off-screen space in film.42

In short, it has been amply demonstrated through many psychological experiments that an individual’s attention does not spread equally through a narrative text but works forward and backward in an uneven manner in constructing large-scale, hierarchical patterns which represent a particular story as an abstract grouping of knowledge based on an underlying schema. Furthermore, a narrative schema may be applied in many situations. It has been shown that

even with meaningless nonsense figures moving in abstract paths, viewers were able to describe and remember a much longer series of events, by generating a simple story, and attributing anthropomorphic qualities to the figures and the motions they perform, than they could handle in purely physical terms.43

Especially important is the way a perceiver infers the purposes, intentions, and goals of the constructed anthropomorphic entities. Thus it would seem that a narrative schema is always an option in processing data even when there are no human characters or the events are essentially "nonsense" data.44

Although narrative is a powerful and general way of organizing information, it is essential to realize that the concept of a schema addresses only some of the issues concerning narrative.45 A narrative schema does not directly address such problems as a perceiver’s fascination, emotional reaction, or participation in a story; the effect on a perceiver of manipulations of point of view; nor the effect of actually experiencing a story in a community setting. Also, presumably, the experiencing a story in a community setting. Also, presumably, the experiencing a story in a community setting. Also, presumably, the

Figure 1 Narrative schema

Elements of a narrative schema displayed as a hexagon. A narrative is constructed by moving through the hexagon to create patterns at the levels of action, scene, episode, sequence, etc.

on comprehension. There is even a question about the nature of the "macro-propositions" generated through a schema: are they verbal, pictorial, or something else?46 This range of issues is a reminder of the complexity of the narrative phenomenon. Still, it does not rule out addressing problems one at a time and then attempting to integrate various theories about human capability and performance. I believe that by studying comprehension as a constructive activity (encompassing much more than the mere retrieval of images or words stored in the order received), one bypasses the now vexed film-theoretical question of whether film is like a "language."47 Indeed, one almost bypasses the question of whether film is like a "communication." There is, in fact, good reason to believe that both film and natural language are special subsets of more general cognitive enterprises. One of these general enterprises is our ability to construct a narrative out of experience; that is to say, our ability to use a narrative schema to model a version of the world. In this view, both film narrative and written narrative express temporal relationships because both are mental constructions, not because film reduces to language.

A PROPOSAL FOR A NARRATIVE SCHEMA

It may be helpful to construct a narrative schema in somewhat more detail and to illustrate its application to a particular film. The elements of the schema I will present are derived primarily from Mary Louise Pratt’s interpretation of the work of the sociolinguist, William Labov, who studied narrative patterns in the everyday conversation of inner