Continuity and Change in Storytelling about Artificial Intelligence: Extending the Narrative Paradigm

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Drawing upon the concept of homo narran, this essay suggests an extension of Fisher’s narrative paradigm, that of glimpsing the processes of continuity and change underlying storytelling, via the concepts of Brown (1978). This approach is illustrated specifically through a rhetorical analysis of a storytelling process presently ongoing in popular discourse about the relationship between human beings and artificially intelligent computers. It reveals the communication patterns used to maintain and shift ideologies, thereby influencing cultural/social continuity and change.

KEY CONCEPTS Ideology, attention switch, social intervention, Brown model, artificial intelligence, computer, narrative paradigm, storytelling.

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The idea that the essential nature of human beings is that they are the storytelling animal—the homo narran (Fisher, 1984, p. 6)—has received much attention lately. This “narrative” approach emerges from the communicative assumption that the starting point for understanding human social dynamics is the symbol (Brown, 1981), or the narratives that human beings tell and on which they base their lives.

However, as the narrative approach primarily has been used by Fisher and others, evaluation of stories has been emphasized, leading critics to ask the unresolved question of “what makes one story better than another?” (Fisher, 1984, p. 16). To answer that question requires one to follow a course of study that focuses attention on “either/or” — either this story or that story offers a better explanation of “reality.” This answer assumes that critics have a way of determining which “reality” is “more real,” and potentially leads to the intolerance of stories considered “less real.” Second, the question directs attention away from the taken-for-granted nature of the norms or standards implied in the question. In other words, critics assume these standards to be “real” categories against which a story can be judged and evaluated. Third, while Fisher (1984) claims “the world is a set of stories which must be chosen among to live the good life in a process of continual recreation” (p. 8), the narrative paradigm as presently conceived does little to show how this process occurs. Rather, like the Aristotelians who asked “what makes one speech better than another,” the narrative
approach continues to stress description and evaluation of stories through comparison and contrast rather than to show the communication process of story negotiation.

Yet, storytelling seems a fitting metaphor to use to glimpse the way in which human beings communicatively make sense of the world around them. But the outcome of using the metaphor can be extended in directions which Fisher and others do not take it. An alternative to focusing on description and evaluation of narrative is to turn attention to the processes of continuity and change underlying storytelling as explicated by Brown (1978). Brown's insight into ideology as communication process features attention to the evolutionary nature of storytelling and to the communication patterns that emerge as human beings negotiate "reality." Through the lens of Brown, the question "what makes one story better than another" shifts to "of what overarching process of continuity and change are stories a part?" In Brown's view, explanations for and understandings of human experience (the specific narratives or stories) change over time, but the process of change, the patterns of sense-making, is continuous. His both/and approach to exploring storytelling leads potentially to an appreciation of the human struggle to make sense of the world and to an ethics of tolerance and acceptance, rather than judgment, of the various stories that emerge as human beings attempt to resolve the dilemma of knowing and not knowing and of certainty and uncertainty.

What follows, then, is a rhetorical analysis of a storytelling process presently ongoing in popular literature about artificial intelligence. This case study attempts to capture via the concepts of Brown how these stories are being constituted—the processes of change and continuity—and to extend the use of the storytelling metaphor. First Brown's conception of ideology as communication process will be explicated. Then, the case study, which analyzes the rhetorical constitution and maintenance of three sense-making patterns, will be presented.

Brown's Concepts

Corley (1983) describes Brown's "major theoretical theme" as "persons are symbol-using creatures with the fundamental need to construe a world and live out that world view with others" (p. 31). Brown, like Burke (1966), bases his methodological work on the assumption that naming is the fundamental human activity—the praxis above all praxis. This also follows from the thinking of other communication scholars; for example, in reviewing public-address studies, Brown (1981) notes that these writers:

recognized that the symbol, whether evocative to audiences or evoked by them, was the fundamental social dynamic—not dialectical materialism, nor economic "forces," nor psychological "attitudes," nor sociological "norms," "folkways," "mores," or "pressures to conformity." Rather, as viewed by our best public-address historians, such social dynamics as the latter were themselves outcomes of human symbol-sharing, with the latter seen, therefore as the more fundamental analysis. (p. 229)

Hence, naming is viewed as the constituting of "reality," the saying that is a doing. For example, Brown accounts for "material" and "economic forces" by assuming that such "entities" arise out of the human ability to transform experience into symbols, or name.
Brown's major ideas were put forth in a 1978 article, "Ideology as Communication Process," and expanded in two later articles (1982, 1986). He develops what might be called a "rhetorical model of social intervention." As method, however, its use might best be described as that of a "search model." Brown's model leads the critic to investigate communication events primarily from a second-order mundane stance (Swanson, 1977a, 1977b), which stresses the interpretative nature of critical activity and knowledge originating from criticism. Thus, emphasis in this study falls on the knowledge that can be gained by using the rhetorical model of social intervention to probe an event, rather than on advocating or disavocating adherence to the model.

Brown's model directs attention to the superordinate names human beings create communicatively to explain all of experience, or the stories that organize all other stories human beings tell about their world and themselves. Brown (1978) calls an overarching name "ideology," which he defines not as "false consciousness," but as "any symbolic construction of the world in whose superordinate 'name' human beings can comprehensively order their experience and subsume their specific activities" (p. 124). Brown (1978) suggests that ideology arises out of the human ability to name "relationships"; human beings' ability to reify relationships allows them to create abstractions of abstractions or categories for categories. Human beings constitute names for experience as a way to reduce the complexity of experience (Luhmann, 1979), to satisfy the human need for order, or, as Brown puts it, "to get the universe between their ears." Brown views ideology as emerging from and, at the same time, constituting three dimensions of human symbolizing activity, which he names "attention," "power," and "need."

As human beings constitute ideology via relational categorizing they simultaneously create gestalts, templates, or worldviews that appear to encompass and explain all of human experience. They name relationships with or constitute stories about their environment. However, to talk about and share experience, human beings must transform experience into symbols, which requires abstracting from that experience. Thus, Brown follows the lead of Langer (1963) in focusing on the symbolic transformation of experience. But, as Brown emphasizes, these names, stories, or worldviews are incomplete, have gaps, because they are grounded in symbolic abstraction, which categorizes some attributes of "reality" and not others (1978, p. 134). As such, worldviews feature attention to certain aspects of human experience and away from other aspects. This will be made clearer in the case study to follow.

Brown argues that human beings adhere to a particular story as long as it appears to explain and make predictable human experience. But when gaps or anomalies become salient that a worldview is unable to explain or resolve, then its adherents potentially face what Brown (1982) names an "attention switch," or a reorganization of the narrative that explains "reality." Brown (1982) writes:

[C]onceptually, an attention-switch requires that (1) at least two patterns or interpretative "templates" [or stories] always be potentially involved in our sizing up a situation; (2) each pattern itself be capable of rendering the situation coherent, and (3) movement from one to another—with a consequent reconstituting of the situation—be necessary before a "switch" will have occurred. (p. 18)

The key here, however, is that "reality," or events outside the human being, is assumed not to have changed, but rather the person's way of symbolically categoriz-
ing experience has changed. Brown further adds that an attention switch potentially shifts a person’s way of knowing, way of being, and/or way of valuing (1982, p. 23). For example, when a person experiences the attention switch of being “born again,” the “reality” outside that person has not changed but that person’s way of understanding it has. At the same time, the person’s values might shift from being materially oriented to being spiritually oriented.

Attention switches are promoted or impeded through the communication strategies of anomaly-masking and anomaly-featuring (Brown, 1982, p. 23). Anomalies are the nonfitting relations in a particular narrative—the gaps it is unable to explain or resolve. Anomaly-masking rhetorically plays down or directs attention away from the gaps while anomaly-featuring communicatively highlights the nonfitting relations. For example, in attempting to convert a Christian, a follower of Hare Krishna might mask anomalies to show how the two belief systems are similar (both believe in one God, both are family-oriented) and/or feature anomalies to “poke holes” in the Christian story (the Bible says thou shalt not kill, yet a Christian kills whenever he/she eats meat). Thus, the *homo narrans* uses language to direct attention to and to de-emphasize some aspects of phenomena rather than others (Brown, 1982).

Finally, Brown claims that concurrent with an attention switch are shifts in a person’s perception of interdependence with others (“power”) and of social and individual needs (“need”). In other words, ideology not only organizes “reality” or worldview, but also names human social hierarchy and needs. This approach potentially highlights the side effects that might occur as one moves from accepting one story to accepting another. For example, the newly “born again” Christian will seek out cooperative relationships with others he or she perceives as being able to help meet new needs for Christian fellowship and spiritual fulfillment; “new” names for relationships and needs are acquired as worldview is renamed. Thus, ideology, in addition to explaining “reality,” makes sense of human relationships and needs.

Brown, who conceives his model as an holistic approach, further argues that shifts in perceptions of interdependence with others will bring about simultaneous shifts in worldview and in human needs, just as shifts in perceptions of human needs will bring about corresponding shifts in relationships with others and in worldview. In other words, Brown attempts to capture a glimpse of a symbolically constructed communication system in which worldview, social hierarchy, and human needs are all intertwined; if change occurs in one, simultaneous change occurs in the other two. However, it is beyond the scope of this paper to delve into these two shifts, which Brown names as “power” and “need” and upon which he elaborates in other articles (1987, 1986).

For this paper, the attention-switch concepts will be made superordinate to power and need to provide a view of how human beings maintain and change their stories. The attempt is to extend the path down which adherence to a storytelling metaphor might lead as a way to highlight the patterns of continuity and change in the symbolically constructed human social system. Attention now turns to the case study.

### The Case Study—The “Threat” to the Story

One story or name around which human experience has been organized is that “human beings are unique”—different from all other elements of creation. We are the creatures molded after the “likeness” of God and hold dominion over the earth.
Human beings assume as a result of their uniqueness that they have some special place and purpose in this universe. We may not know what ultimate purposes we serve, but the story assures us that we are needed and useful: more, the superior beings in the universe. Briggs and Peat (1984) note:

The evolutionary hierarchy seems to depend on our preference for thinking ourselves the most advanced of nature's creatures. This preference may be blocking a nonhierarchical appreciation of evolution. Granted, such an idea would be difficult to grasp, since we are so accustomed to ideas of power, superiority-inferiority, comparison. Everywhere one looks human beings have arranged the world into hierarchies and assumed that the greatest value lies at top. (p. 187)

Evidence for such an ideology is seen in the writings of Mazlish (1970) and Bolter (1984), both of whom attempt to make sense of the relationship between human beings and their machines. Each symbolically constitutes the existence of the human uniqueness story by finding examples of it reflected in past human behavior. The story becomes the organizing principle around which the writers' stories of the history of the human/machine relationship evolve. While each author tells a different story to explain the relationship, both come to the similar conclusion that previously, human beings have been able to mask anomalies in the human uniqueness story to maintain their beliefs in human specialness. But, today, the artificially intelligent computer potentially creates gaps unexplainable by that story, gaps that must be resolved by shifting belief to a new story, the authors believe.

Mazlish (1970) explains that when Copernicus challenged human beings' assumed unique place in the universe by discovering that the earth was not the center of the universe, human beings responded by subordinating the exact location of the earth to an appreciation of the orderly and systemic nature of the universe, which contained laws to which human beings supposedly were not subjected (pp. 195–196). When Darwin threatened the story of human uniqueness by connecting human beings with the evolution of the animal world, persons maintained the story by redefining themselves as the thinking and rational animal (pp. 195–196). Thus, in these and other examples provided by Mazlish, human beings used the communication strategy of masking anomalies in the human uniqueness story. Specifically, they used the maneuver of symbolically redefining the criterial attributes that constituted the story of human uniqueness so that the anomalies became fitting relations—the story continued to make sense.

Similar to Mazlish's thinking is that of Bolter. Bolter (1984) notes, "Men and women throughout history have asked how it is that they and their culture (their technology in the largest sense) transcend nature, what makes them characteristically human and not merely animal" (p. 9). Bolter claims that each era has a "defining technology" that defines or redefines human beings' role in relation to nature (p. 13). This defining technology serves as a metaphor for the culture and "collects and focuses seemingly disparate ideas in a culture" (p. 11). Assumptions or stories about the world, then, spring out of these metaphors. Bolter claims that past cultures have been defined by technologies such as the potter's wheel, clock, and steam engine. For example, in the Greek era, deities were viewed as potters who created and breathed life into human beings and the universe. During the Middle Ages, the universe was conceived to operate like clockwork (p. 41). These metaphors, while
redefining human beings' relationship with nature, did not challenge their assumptions about human uniqueness.

Both writers agree, however, that the taken-for-granted quality of human beings—their uniqueness—is being threatened by the development of the artificially intelligent computer. In Mazlish's view, the threat arises from persons refusing to recognize that thinking and reasoning is not their sole domain; machines can share these abilities. For Bolter (1984), the threat is “with the computer, ... now we have an inanimate metaphor for the human mind as compelling as the clock was for the planets” (p. 41). Diebold (1969) summarizes the challenge:

Man's intellect no longer sets him apart from the rest of creation. He has created machines that increasingly are able to think like and even out-think him. ... Thus, man finds himself lacking in the self-imposed requisites for a unique place among the creatures of God. He neither has devised new requisites he is able to meet nor has he prepared himself to abdicate his unique place. (p. 144)

In abdicating their new place or in devising new requisites, human beings possibly face an “attention switch,” or communicative reconstituting of their stories about human uniqueness to resolve the anomalies created by an artificially intelligent machine. (Note, however, that the machine itself does not create the anomalies, but rather it is how human beings “name” the machine that creates the anomalies.) Human beings potentially experience “tension” when facing such anomalies because their accepted stories no longer seem to explain “reality”; apparent chaos subsumes apparent order. Thus “new” stories or reorganized “old” stories must be told to maintain order.

Evidence for this storytelling process emerges from comments in recent popular literature in which writers on artificial intelligence attempt to make sense of the future relationship between human beings and “thinking” computers. Assumed is that computers have the potentiality to acquire thinking and reasoning abilities once thought to be the sole domain of human beings, thus threatening human uniqueness. Leach (1976) would note at this point that human beings have “forgotten” that “human uniqueness” is a metaphorical concept that has no existence outside of persons' minds. Yet, by agreeing communicatively upon the criterial attributes of this concept and by finding experiences that exemplify this concept, it has taken on metonymic, “outside the skin,” “taken-for-granted” existence. We “see” “human uniqueness” as evidenced by the thinking processes of human beings, in human behaviors that we name as “unique.” Thus, these authors of popular discourse on artificial intelligence can argue about the future of “human uniqueness” because its existence is assumed “real”; it can be maintained or destroyed in response to a “thinking” computer.

Three general communicative patterns of response to this threat can be seen evolving in the discourse. In one pattern, persons resolve the tension created by the threat primarily by using the communication strategy of anomaly-featuring to maintain the presently held story that says “human beings are unique.” In a second pattern, anomaly-masking is the superordinate strategy used to offer a reconstructed story in which human beings and computers are continuous. Finally, a third pattern creates a new story in which uniqueness results from the merging of human beings and computer. An elaboration of these patterns reflected in the storytelling process follows.
Pattern One—The Human Being as Unique

One way in which some persons resolve threats to the presently held story of human specialness is to mask anomalies in that story by using a communication strategy of featuring anomalies in the alternative story that says human beings and computers are similar. The artificially intelligent computer potentially creates a gap in the human uniqueness story by exhibiting attributes such as thinking and reasoning that previously have separated human beings from animals and machines. That a machine could exhibit such behavior suggests that no difference exists between human beings and computers and suggests the possibility that human beings are computers and, by extension, not unique, not superior. Hence, the “human being as unique” story would no longer make sense of experience. But, in this pattern of storytelling, adherents find ways to redefine symbolically what it is to be a human being so that the difference between person and computer is maintained. They direct attention to attributes that human beings, not computers, have, thereby featuring anomalies in the story that says human beings and computers are the same and continuing to make sense of experience via the “old” story.

For example, Hooper (1983) suggests that human beings will come to be respected as the “unprogrammable” (p. 64), thus directing attention away from the possibility that human beings are “wired up” like wasps and bees and machines. Anderson believes we will come to appreciate the unique skills involved in everyday activities. He comments, “As soon as the computer is able to do something we no longer tend to see that as intelligent. . . . We are now much more impressed by our ability to hold a conversation and our ability to understand what a scene is just by looking at it” (Huyghe, 1983, p. 32). Turkle speculates that human beings will view themselves as the “emotional machines,” (Huyghe, 1983, p. 35) because emotions presumably are an attribute unattainable by a rational computer. Finally, Rosenblatt (1982) thinks human beings will be distinguished from computers by their ability to desire. He writes:

Even if it were possible to reduce people to box size and have them plonked down before themselves in all their powers, they would still want more. Whatever its source, there is a desire that out desires desire; otherwise computers would not have come into being. (p. 59).

Common to all these authors’ stories is a subordination of the thinking and reasoning processes of human beings (and thus a masking of a potential similarity between human being and computer) and a featuring of attention to new attributes, rhetorically constituted, that separate human beings from machines and so maintain the human uniqueness story. In each instance, the authors reify these attributes in descriptions of actions that human beings, but not computers, can take. However, these authors seem to welcome comparison between human beings and computers because they feel we will gain more insight into what it is to be human. For example, Diebold (1966) points out, “Each time a major scientific innovation has been made, we find that our concept of ourselves becomes more profound. It changes; it becomes more true” (p. 5). Thus, this story reduces tension created by the threat to it by encouraging comparison so that human beings will uncover newly conceived ways in which they are unique. It continues a pattern to which Mazlish and Bolter pointed—such shifts in foregrounding and backgrounding of experience to maintain the human uniqueness story occurred with the interventions of Copernicus and Darwin.
Next, in Brown’s (1978) terms, continued acceptance of the human uniqueness story creates expectancies for human needs, relationships, and worldview. It implies a cooperative power relationship in which human beings will always be master over the machine. Adherence to this story attributes to human beings the need to be “special” by focusing attention on an unduplicable quality that forever separates human beings from their creations. It advocates a worldview in which human beings still hold the uppermost position in the “taken-for-granted” hierarchy of the universe. In other words, in maintaining the human uniqueness story, human beings promote their present structures for understanding themselves, their present social hierarchy, and their worldview. Via the communication strategy of anomaly-featuring, the authors attempt to impede an attention switch to other stories that potentially make sense of the human/computer relationship. Their story continues to explain the human/computer relationship by highlighting attributes constituting human uniqueness and de-emphasizing human/computer similarities. Anomaly-masking also is present in the storytelling; it directs attention away from the potential sameness between human beings and their machines. But, this strategy appears subordinate to that of anomaly-featuring.

Thus, in this pattern of storytelling, a story that has a long history continues to be maintained. What changes, however, are the criterial attributes by which human beings are categorized as unique. Hence, change, paradoxically, seems necessary to continuity. Also continuous is the process by which the story is maintained. As indicated earlier, in the past, human beings continually found ways to redefine themselves symbolically to forestall attention shifts to other stories about their identity.

Others, however, rather than advocating differences between human beings and machines, have been featuring attention to similarities between the two. In this second pattern, as next is seen, the authors attempt to promote an attention switch to a story that reads, “Human beings are computers.”

**Pattern Two—The Human Being as Computer**

An alternative story emerges in the popular literature in which the authors respond to the threat created by an artificially intelligent machine by assuming themselves to be continuous with their technology. That a computer could function as a human being no longer is an anomaly in this “template” because acceptance of this new story makes sense of the human/computer relationship by making salient important similarities between human beings and computers and by masking attention to potential differences. These authors have experienced an attention switch, or movement from a “template” that says “human beings are unique” to a “template” that says “human beings are computers.” This new story resolves tension created by the gaps in the human uniqueness story by assuming simply that human beings are not unique; thus, the anomaly—a “thinking” computer—becomes a fitting relation. Some authors, such as Minsky (1984), find this new story reassuring, while others, such as Neisser (1966) and Weizenbaum (1976), find it threatening.

The authors for whom this new story “makes sense” of human experience argue that acceptance of human/computer similarity provides new ways of understanding and explaining human beings and the world. Minsky comments, “I think what we have learned is that we are probably computers. What that means is that if we don’t like how we work, then someday we are going to be able to intervene” (Huyghe,
1983, p. 35). These authors, such as Minsky, Papert, and Arbib (1972), reify the similarities between persons and computers by providing numerous examples in which human/computer comparison has resulted in models that predict and explain human experience, thereby promoting an attention switch. For example, Mowshowitz (1976) notes, “[A]nalogies with machine-based processes have yielded models which have led to important discoveries. The notions of immediate and long-term memory, rehearsal, and decay, and their functions in recalling and forgetting become precisely defined with reference to information-processing systems” (p. 287).

Other authors, however, fear acceptance of this new story because it challenges their assumptions, based on the old story of human uniqueness, of what human beings should be like and how they should think. They “forget” that the old story has become “taken-for-granted,” just as the new story might someday be accepted as the explanation for human experience. Yet, like the authors who accept the story, they act as if the human/computer comparison is a legitimate one. They continue to mask the anomalies that would make salient differences between human beings and computers and attempt to forestall an attention switch by pointing out potentially negative side effects of accepting the human/computer similarity story. For example, Emerson (1984) warns that as the distinction between human beings and computers is lost, persons will treat other human beings as machines. Neisser (1966) suggests that acceptance of the new story will increase belief in the manipulability of human beings through techniques such as advertising and subliminal effects (p. 76). Weizenbaum fears that this new story will result in human thinking processes changing to fit that of computers and encouraging what he calls “scientific rationality” (Rosenthal, 1983, p. 95). He says, “To him who has only a computer, the world looks like a computer domain” (Rifkin, 1983, p. 20).

This supports Brown’s contention that acceptance of a new story potentially shifts expectancies about human needs and relationships. For example, human beings might lose their “need” to define themselves as special and acquire instead machine models that make sense of human thought processes, thereby establishing new “human” needs. Next, the relationship between human beings and their machines potentially shifts from cooperative to competitive as computers assume a position of equality with their human creators. Finally, the worldview shifts to one in which human beings have an equal and in which they no longer dominate the creation hierarchy or in which the hierarchy becomes nonexistent.

Thus, this second story, by making superordinate a communication strategy of anomaly-masking, directs attention to the similarities between human beings and their machines. Subordinate in the storytelling is anomaly-featuring—the highlighting of gaps in the belief that persons and computers are different. This story, like the first pattern, is capable of rendering explainable human experience.

Unlike the first pattern of storytelling, the story itself, rather than just dimensions of the story, changes in the second pattern of storytelling. An alternative story is communicatively constituted that says human beings are computers. But, despite the apparent differences in the stories emerging from the two patterns of storytelling, the process by which the stories are being constituted is continuous. Adherents to each story must use the communication strategies of anomaly-masking and anomaly-featuring to emphasize and de-emphasize certain aspects of experience. Both must symbolically abstract from experience to constitute their stories. Yet, because human beings have to abstract from experience—from the sensory to the symbolic level—
change occurs when human beings highlight and mask attention to different aspects of that experience.

But these are not the only stories which make sense of the human/computer relationship. Each of these perspectives has featured attention either to similarities or differences. To be considered next, then, is a third story emerging in which the human being and computer both merge and achieve uniqueness.

**Pattern Three—The Human/Computer Evolution**

Finally, some persons tell a story in which human beings evolve to keep pace with the machines they have created. For example, Jastrow (1981) suggests that this evolution might ultimately result in the joining of the brain and machine because physical limitations will prevent the human brain from evolving separately as fast as computers (pp. 164–165). He sees this occurring after scientists learn how to interpret brain signals to tap the mind’s contents and transfer them into the metallic lattices of a computer. From this, Jastrow speculates:

> It seems to me that this must be the mature form of intelligent life in the Universe. Housed in indestructible lattices of silicon, and no longer constrained in the span of its years by the life and death cycle of a biological organism, such a kind of life could live forever. (p. 167)

In this story, human beings resolve the threat posed by a “thinking” computer by merging with it to regain their unique position in the universe. They become the highest order of creation by achieving what other creatures have not—immortality. Adherence to this story directs attention away from the potentially negative side effects of creating an artificially intelligent computer. Rather, the story points to the potentiality of an unlimited future with these machines and offers resolution to the threat human beings fear most—death.

Acceptance of this story both features and masks attention to old and new assumptions of human specialness. It directs attention to similarities between human beings and computers because the two must be common enough “physically” to merge. Yet, it also features a difference; it distinguishes the evolved human being from all other products in the universe. Thus, acceptance of this story would require an attention switch on the part of adherents to the other two stories. It, like the other two stories, has implications for human worldview, relationships, and need. The world of the immortal would be quite different from the world of the limited human being.

Again, as with pattern two, the story changes. But, underlying all three patterns of storytelling is a continuity in the process of storytelling—the communicative featuring and masking of attention to differing aspects of experience. In addition, common to all three patterns of storytelling seems to be a need to tell stories, a human desire to make sense of and understandable the apparent complexity of experience.

**Conclusion**

When analyzed using Brown’s rhetorical model of social intervention, it can be seen that each of the stories recounted above is capable of making sense of the human/computer relationship; neither seems to be more “correct” than the other. Each story emerges from the same experience but the storytellers offer differing interpretations of that experience depending upon which aspects of experience they

*Continuity and Change in Storytelling about Artificial Intelligence* 307
abstract—which they communicatively highlight or de-emphasize. By using the communication strategies of anomaly-masking and anomaly-featuring, the stories' adherents reduce tension created when nonfitting relations become salient in a story. They direct attention away from the apparent complexity of experience.

Yet, as Brown notes, the more human beings attempt to apply or "stretch" a story to explain as much as they can about human experience, the more unresolved anomalies will become salient until, from the point of view of the adherents, their system of sense-making seems to run down. For example, the more Newtonian physics was applied to understand experience, the more gaps in the form of unexplainable experience from the point of view of Newtonian physics appeared. Brown (1978) explains, "In such deviance-amplifying states, all omissions, inconsistencies, and contradictions in ideology are apparently magnified to its followers" (p. 135). To the adherents, the worldview no longer seems to explain human experience—a system break occurs. But, from the point of view of the student of communication, an attention shift occurs. The human beings reorganize around a new story that seems to compensate for the gaps in the old.

Brown's model allows the critic to speculate about cultural/social trends as revealed in patterns of communication. For example, in reflecting upon the stories currently evolving about the human/computer relationship, this analysis points to the potentiality that the human uniqueness story has been "stretched" to its limits and that human beings face an attention switch to an alternative story. As Bolter and Mazlish indicate, without the specific terminology, the human uniqueness story is an old one in which many anomalies have been masked in order to maintain it. With the rise of the artificially intelligent computer, the human/computer similarity story may compensate for the gaps in the old story and offer more explanation and prediction of human experience. But, as with the old story and as human beings apply the human/computer similarity story to explain and understand more and more situations, the more will anomalies become salient in this story. Initially, human beings will find ways communicatively to mask the gaps until the gaps become so unexplainable that attention shifts to an alternative story, perhaps back to the human uniqueness story.

So, while over time, the meaning-making stories change, the process of storytelling remains continuous; continuity and change can be seen to exist concurrently in communicatively created social systems. Change occurs when the content of ideology shifts as human beings attempt to account for gaps in their comprehensive explanations for experience. Implicit in the change, though, is a continuous need for human beings to posit such overarching symbolic names and a continuity in the manner in which they construct, maintain, and change those names. In the end, from this particular approach, the question is not which one of these stories is better, because all are incomplete. Brown (1978) writes:

[T]he rise and fall of what we are accustomed to think of as belief systems are objects neither for blame nor praise, mourning nor rejoicing. Their rising and falling, given the function of human symbol-use, simply are. As much as one might regret or welcome the passing of a particular ideology, the process of ideologizing will continue. (p. 139)

Viewing the narrative paradigm from this approach suggests that the stories we tell are part of a larger pattern of continuity and change in the way in which we make sense of human experience. While this essay considers only the stories being told
about artificial intelligence, the assumption is this approach applied to any storytelling situation would reveal a similar pattern of storytelling process. (See, for example, Brown's application to science (1978) and to black/white relations (1982)).

A strength of Brown's perspective is that it allows one to consider intervention into the storytelling process via an understanding of the communication strategies and maneuvers being used to promote or impede an attention switch. From this perspective, communication events can be interpreted as attempts to maintain or change current ideologies; persons act as interveners to influence others' understandings of needs, relationships, and worldview. For example, Minsky and others who are advocating the human/computer similarity story can be thought of as intervening into the old communication system that adheres to the human uniqueness story. If one accepts with Brown that shifts in stories bring about simultaneous shifts in human relationships and needs, then one is led to consider the potential side effects of accepting alternative stories. Also, the approach provides a starting point for attempting the creation of new stories. For example, one might attempt to construct symbolically an alternative to the human uniqueness and human/computer similarity stories as a way to unite adherents of the two.

This essay has attempted to extend the path down which a storytelling metaphor might lead the critic to analyze the human social system. The *homo narrans* metaphor provides a way into understanding how human beings make sense of human experience. But it, too, is a story and subject to future replacement as more critics apply it and more anomalies appear. (See, for example, Warnick (1987), who finds gaps in Fisher's conception of the narrative paradigm in the form of internal contradictions and inconsistencies.) Critics will disagree over it and other stories as ways to understand human symbolic constructions of "reality" until they settle on a story that seems to resolve tension for the moment. Then, it will be as Bolter (1984) predicts for the stories about artificial intelligence: "The debate over the possibility of computer thought will never be won nor lost; it will simply cease to be of interest, like the previous debate over man as a clockwork mechanism" (p. 190). That loss of interest will simply mean an attention switch, the storyline for which will be contended.

**REFERENCES**


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