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Abstract

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The Dialogical Reality of Meaning

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Abstract: This paper offers a non-representational alternative to semiotic notions of meaning as the designatum of signs, the content of messages, or what a text is about. It derives from considerations of how things – artifacts and objects of nature – could mean something to somebody. Rather than treating things as signs of themselves and thereby undermining the two-world ontology of semiotics, it explores the cultural roles that artifacts acquire in the lives of their users and when questions of their meanings arise and how they are answered in conversation. The paper presents a dialogical conception of meaning, which relies on Bateson’s recognition of the importance of multiple descriptions, Wittgenstein’s “seeing as,” theories of embodied narratives, and bricolages involving technology.

1. Introduction

I am writing from two perspectives: On the one hand, I am a scholar of communication and much of my work centers on epistemology and meaning, particularly in human dialogue. On the other, I am a designer who occasionally teaches design and writes on interfaces between humans and technology. I am joining these perspectives in an exploration of the social construction of artifacts and in that process, I am proposing a non-semiotic etymology of artifacts.

This essay starts with (1.) a discussion of where issues of meaning arise. In (2.), I am using a popular movie to illustrate how artifacts could mean something, which is a largely neglected area in need of explanations. In (3.), I am weaving three notions into an explanatory framework for the above: the effort of second-order cybernetics to include the observer in the observed, an expansion of Bateson’s recognition of the significance of multiple descriptions into the social domain, and dialogue. In (4.), I am concerned with larger social realities in which artifacts constitutively participate. To illustrate, I am relying here on a more personal example of how artifacts can move through systems of meaning. A concern for language ties the essay together.

2. Issues of Meaning

2.1 The Basic Question

All questions concerning meaning occur in language. In the con-sensual (jointly sensed) experience of something, say A, we ask:

What does A mean?

In this question, A is a phrase, a noun phrase perhaps, calling attention to something, a natural disaster, a text, a traffic sign, a human action, whatever. We reply to this by saying, for example:

A means B.

But what is the difference between A and B?

First, we must note that both, A and B, occur in language, not outside of it. We cannot ask questions or answer them without that extraordinary way of coordinating actions. Without the assurance or assumption that mentioning A is based on something jointly sensed, present or somehow understood, we would not know what we are asking or answering.

Second, question/answer pairs, so-called adjacency pairs, occur in conversations or dialogues. There is always someone who asks about A and someone else who responds with a proposition relating A to B. Answering one's own question, as in this paper, simulates a conversation and could not be comprehended without the experience of interacting with real people. Experientially, conversation comes to us before self-reflection and writing.

Third and most importantly, in this verbal interaction, in fact, in the question as well as in the answer, A is presupposed while B is not. This is demonstrable by observing the effects of negation. In negating a proposition, its presuppositions survive unscathed. In the proposition "A does not mean B" or "it is not true that A means B", A remains unquestioned, and its ontological status is not affected. It is B that changes its truth-value, becomes arguable, and reveals itself as variable.

I suggest that most of our ontological constructions are linguistically manifest in presuppositions. They are an artifact of language and not testable against empirical evidence. In denying the semiotic version of our answer, "A does not stand for B", leaves A, the sign vehicle or signifier unquestioned while what it stands for, B, becomes the focus of attention. Cartesians locate A in an objective reality, which is presumed unquestionably real, existing without observation, and before any mind attaches the meanings B to it. Peircean semiotics uncritically formalizes such propositions and thereby pursues a two-world ontology, the world of the signifiers and the world of the signified (Stewart, 1996). It also insists that the two must not overlap and should not be confused and, as far as symbols are concerned, their physical representations, the sign vehicles, are objective sensory facts while their meanings are arbitrary. It is amazing to realize that these constructions are a product of how we speak and based on constructions that a language habitually makes available.

2.2 Meaning in Use

But what is A that it could have meaning B? Let me try to answer this question by examining a familiar site where questions concerning meanings arise: the first 12 minutes of *The Gods Must Be Crazy*, a popular movie, released in 1984. It plays on the conceptual relativity of our modern western civilization and the culture of bushmen living in the Kalahari Desert. Let me narrate here what I find relevant for this essay.

A small airplane is crossing the Kalahari Desert. Bushmen live there and we are told they consider airplanes as evidence of gods in the sky. Its pilot finishes a Coke and throws the bottle out of the window. The bottle lands near a bushman, named Xi, who, having never seen a glass bottle before, first carefully probes it with a primitive tool and then, having convinced himself of no apparent danger, takes it home to his tribe.

There, the bottle is collectively examined with curiosity if not awe. The consensus is, we are told, that it is a gift from the gods. The bushmen turn out to be ingenious in finding all kinds of uses for it. In a place without rocks, the hardness of the bottle encourages its use as a pestle for smashing roots. Its smoothness aids the flattening and stretching of snake skins. Its opening finds its use as a stamp for decorating a garment with circles. It turns out to make sounds when blowing over its opening as well as when it turns, tied horizontally at the end of an untwisting rope. No one discovers its use as a container, perhaps because water is scarce in the desert.

Because there is only one of its kind and very much in demand for its many uses, the bottle also encourages competition and creates hostility of the kind, we are told, these bushmen had not known before. Eventually, someone is hit over the head with it and is hurt. The bushmen do not understand how the gods, who had always been so kind to them, to their own children, could send a gift that does such evil things. Xi wants the gods to take it back, hoping that happiness would then return to his tribe. He throws it into the sky, but it comes back and hurts someone else. He buries it in the sand, but once again it turns up in the life of the tribe, being both a prized possession and a harmful object. To get rid of this evil thing, Xi sets out on a trip to the edge of the world. The remainder of the movie is less significant for us.

What does this story teach us? First, we seem to have no difficulties observing that the Coke bottle acquired meanings that are rather different from ours. The movie depicts several novel uses of the bottle, several sensory-motor coordinations, from Xi's first curious touch of something he had never seen before, to various practical uses that the bushmen invent. Within a rationalist framework, a functionalist might say that the bushmen failed to recognize the intended function of the Coke bottle and (mis)used it in numerous ways. Note the implicit ethnocentrism of such an assessment. An anthropologist might appreciate the cleverness of the bushmen to make the bottle part of bushmen culture. I would emphasize that all artifacts have a way to afford some practices while constraining others. The movie depicts these two contradictory consequences of technology in terms of good and evil. Surely, these meanings are not representational. The Coke bottle does not signify any other piece of reality, as a sign would have to do, and what its designer had inscribed in its form seems to have no relevance for the bushmen either. Evident to the viewers of the movie, the bushmen invent an amazing array of uses.

I contend that the use of the Coke bottle, which a movie can show us quite graphically, provides rather poor explanations of what that artifact comes to mean. It privileges viewers or observers' explanations and limits us to meanings that are enacted by individuals and evident in sensory motor coordinations.

Far more important is that the movie shows the bushmen talking to each other while attending to the bottle, perhaps considering new uses, certainly regulating its possession, and seemingly making fun of Xi when he gets his finger stuck in it. Evidently, the bushmen play all kinds of Wittgensteinian (1953) language games in which talk and the handling of the artifact is

closely coordinated. Unfortunately, we only learn about what they say through the voice of an English-speaking interpreter. Although I doubt that the bushmen ever literally ask what the bottle means, language clearly plays a role in what becomes of it, the roles it comes to play in the community. Through the use of language, B, that is, the con-sensual use of A, became part of and transformed the bushmen's world.

I am contending that the conception of meaning as use – without presupposing a two-world construction, without “standing for” relationships, and without relying on objective accounts of sign vehicles – is quite incompatible with Peircean semiotics. But let me go a step further in this direction.

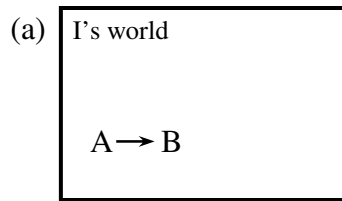
2.3 Meaning in Dialogue

Here, I want to weave three conceptions together. They seem abstract only in wording but do not go beyond “what every teenager knows” – to rephrase Bateson's (1979) phrase¹ but may have been forgotten by theorists of meaning. The first is the second-order cybernetic fondness for **including the observer** in the descriptions of the observed (Maturana, 1970; Foerster et al., 1974; Maturana and Varela, 1988). As movie audiences, we never merely register what is seen on the movie screen, like a camera records pattern of light on film. In seeing, we are actively attending to something, and what we see has much to do with our biology and with our socio-linguistic history. For a biological example, consider the well-known fact that the outside world knows no colors. Color is a product of our perceptual apparatus. For a socio-linguistic example, consider that we must literally learn to see, and the categories of our perception are largely consensually coordinated, within a linguistic community. Whorf (1956) gave us ample examples of how grammatical constructions in language shape categories of perceptions. And Sacks (1996:108-152) showed us that visual perception is learned early and may not be learnable or teachable at a later age; for example, when someone, born blind, is given his or her functional retina back. The claim that A means B, without saying for whom this is so, implies that it must be so for everyone, at all times, and under all circumstances. This violates human biology. Such a claim can only be upheld where the institutions that enforce the relationship between A and B are taken for granted, not acknowledged, if not deliberately rendered invisible. Theorizing this institutionalized objectivism is what has gotten semioticians into trouble. So, by acknowledging myself as the observer and reporter of my (sensory) experiences, we should always say:

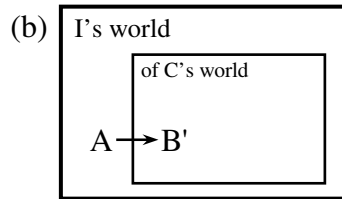
A means B to me.

Figure 1 (a) depicts this conception.

¹ Actually, Chapter 2 of Bateson's (1979) *Mind and Nature* is entitled “What every schoolboy knows” and reports conversations with his teenage daughter.



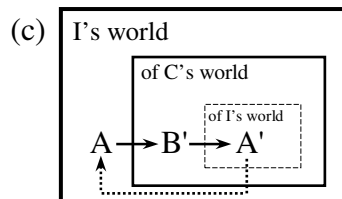
I: A means B (to I)



I: A means B to C

C: B' is

$B' \neq B$

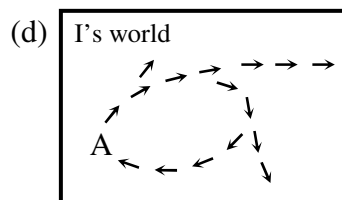


I: A means B to C

C: B' means A' to I

$A' \neq A$

I: A is affected by C acting on A'



I: A means something different in different bricolages,

I: As A travels through the multiple worlds of others it is affected by its returning consequences

Meaning as a Relationship Between Different Descriptions

Figure 1

The second concept that I wish to enter here is Bateson's (1979: 75-98) observation that **multiple descriptions** add to our understanding and are often necessary to develop insights about a phenomenon of interest. He explores physiological phenomena, such as binocular vision, and

logical ones, like abduction. In answering questions about the meaning of A, one difference between A and B, already mentioned, is that A is linguistically presupposed while the truth of B is in question. A is therefore described as if it existed outside of us, independent of us, and in third-person terms. By contrast, B redescribes A in terms of what we can and do with A, how A appears to us, for example. A and B differ not along the Cartesian objective-subjective dimension but in whether the description omits references to the user of A or implicate that user in A's description. Adding B to A enriches our understanding of both, and this is what Bateson taught me.

Wittgenstein (1953:194) investigated a related phenomenon, that of so-called flip-figures, a single figure that affords two alternative and mutually exclusive interpretations. He used a figure that sometimes (or for some people) appears to depict a duck and sometimes (or for other people) appears to depict a rabbit. We might be more familiar with the flip-figure of the old lady / young lady. With this examination, Wittgenstein makes us aware of the crucial differences between the figure, A, that was printed in black on white paper, can be handled, turned around, and moved out of sight, and what we actually see, B, one of two images. It demonstrates B as an interpretation of A. I have shown how language is implicated in accomplishing this flip (Krippendorff, 1995).

To go back to the movie *The Gods Must Be Crazy*; there is another distinction we need to recognize. I have shown this movie a couple of times and afterwards asked: "What fell from the sky?" For most viewers the answer was obvious, "a Coke bottle", typically followed by statements that the bushmen were unable to recognize it for what it "really" was. Except for the latter qualification, to tell a comprehensible story, I too told the story as if a Coke bottle fell from the sky. Such accounts, typical as they are, fail to acknowledge culture-specific differences in perception. They objectify our own culture, mistake our conception for what exists outside of us, and actually are manifestations of our ethnocentrism. In fact, one could interpret the whole movie in these terms. However, let me move on to what might prevent us from falling into this epistemological trap. I suggest that once we recognize the unfairness of ethnocentrism to other cultures, theorists of human behavior should always acknowledge that others may construct meanings, in fact, their worlds, differently from those of the theorists – without suggesting that the world of observed others are inferior or wrong. Thus, we should not theorize "A means B" but enter us as observers into our propositions and acknowledge descriptions by others as of equal value but different epistemological status. Let us cast our observations in terms of:

I interpret A to mean B to C.

To apply such constructions rigorously is not as easy as it seems. I already mentioned the logic of presuppositions that makes us see the Coke bottle as an objective fact, and the bushmen's interpretation as deviant, mistaken, and perhaps, therefore, funny and entertaining. What the above asks of us is to abandon the idea of describing others in observer terms, as to who they are, without acknowledging their use of language, and instead grant them the same capability of understanding that we imply capable ourselves. The issue is not to understand others but to understand the understanding of others as manifest in what they say and do. Understanding others' understanding, understanding understanding, is of a logical type quite

different from understanding objects that are incapable of understanding. I have called this second-order understanding to contrast it with the kind of knowledge that the natural sciences celebrate (or restrict themselves to explore) and the kind of constructions that Buber (1970) located in I-it relations, which reduce other human beings to objects, performing functions, or being of service to the knower (Krippendorff, 1996, 1997). Second-order understanding means acknowledging that the worlds of others could be radically different from our own. But because we cannot literally enter the bushmen's world with all of its sensory affordances, their world is an opportunity to reflect on our own, make our own world transparent, understandable, appreciable, without considering it superior. Without the worlds of others, we would not be able to reflect on our own. Second-order understanding always entails a struggle against our temptation to think that everyone understands as we do, unwittingly making us oppressors, controllers, and engineers of others' lives.

With reference to the above, I suggest that the question of meaning always arises when the difference between two descriptions is puzzling yet cannot be ignored. Meaning is our linguistic effort to make sense of seeing something from two or more perspectives: one obvious, unproblematic, seemingly given, and often sensorily present, the other perhaps less obvious, hoped for, or feared, leading to unobserved phenomena, always relative to a context, but especially in the context of others. What is a Coke bottle for us need not be, cannot be expected to be, and most likely is not a Coke bottle for the bushmen. We never see the physical properties of things but what they mean to us individually and socially, and there is no reason, therefore, to assume that the bushmen see as same what unquestionably is a cultural artifact for us. In the movie, once the bottle is thrown out of the airplane, it enters into a different world where it ends up being an evil thing.

Note that A is not a signifier, and B is not the signified. A and B belong to different world constructions as may be seen in (b) of Figure 1. Meanings are asserted in language and link different descriptions, join different perspectives, and bridge different worlds.

In saying "I interpret A to mean B to C", "I" can be a viewer of the movie. "I" can be a historian interpreting a set of documents relative to what their writers may have meant and in the historical context in which these documents played a role. "I" can be a therapist attempting to make sense of the world that a client finds troubling. "I" can be a politician speaking in view of how her speech will be received. "I" can also be a social scientist, an ethnographer, for example, attempting to go beyond merely describing observations by adding the accounts that informants give for why they do what they do. Bateson thought multiple descriptions add information to our understanding. In the social domain, what the comparison adds is second-order understanding. I am suggesting that this interlaced understanding constitutes social reality.

Let me finally weave **dialogue** into this conception. Clearly, a movie engages its viewers in one-way communication. Viewers find themselves in a hermeneutic cycle of interpretation, but cannot interact with those the movie presents on the screen. Much as in scientific theories, observed others have no voice except when granted by the scientist, here the filmmaker. To enable dialogue requires three things.

The first is symmetry. If the word "meaning" makes sense to others, then we are not the only ones capable of comparing multiple descriptions and considering multiple perspectives.

Unless social theorists play godlike observers from which point meanings are subjective correlates of physical facts, they need to grant interpretive abilities to others as well and use explanatory structures capable of this symmetry. Semiotic theories of the kind “A means B” do not grant these abilities; they objectify meaning. To allow multiple descriptions to enter considerations of meaning requires us to complement our proposition concerning meaning:

I interpret A to mean B to C

by an additional proposition that acknowledges the possibility that others can do the same in relation to us:

C interprets B to mean A to me.

Second is interaction. When we interact with others, we enact our constructions of them, what we know about these others and their worlds. Sending a message A in the belief that C will read it as B and respond to B accordingly is something every teenager considers obvious, yet social theories seem somehow blind to such complementarities. I suspect because such theories entail a recursion, as is emerging by progressing from (a) via (b) to (c) of Figure 1. Here we see the construction of worlds within worlds. Bypassing such constructions of us and of others, ignoring meanings, as behaviorists prefer, and think only in terms of causal chains would admittedly be easier but also wrong.

Recursive constructions not only call on a certain openness, indeterminacy, and acknowledgement of others’ agency, which goes against psychological theory, they also call on us to abandon the position of the superior outside observer. In interaction with others whose worlds we cannot observe except through their consequences, if C’s response does not seem to confirm our construction of C’s world, we may have to modify our construction or act so as to assure that we can continue interacting with C. It does not really matter what C’s world “really” is – this is why C’s perceptions and interpretations are apostrophized in Figure 1 – as long as it remains complementary to or compatible with our enacted construction of it.

One could call the process just described (inter)active (dis)confirmation; one that entails conceptual drifts in the presence of an unknown and unknowable environment, one that is presumed to be populated by others who, much like us, live in their own drifting constructions. Our constructions are no doubt hypothetical, much like theories are. However, unlike theories in the natural sciences, social theories must prove themselves in practices. They must inform actions, physical and/or linguistic. They let us go on as usual or else they produce warning signs, stress, if not death when they turn out to be mortally inappropriate. I am suggesting that our ability to apply theories of meaning to interactive practices is what makes social theory social – but this has not yet come to dialogue.

Interactions among people who acknowledge each other’s unequal world constructions are common and so are complementarities of meaning. They include the best of friends and the worst of enemies. Dialogue calls for more than using complementary constructions. Israelis and Palestinians both claim to know the other too well to trust each other. To be dialogue, what is missing here is mutual acceptance of each other’s worlds. I once formulated an ethical imperative

(Krippendorff, 1989:86-90) for communication researchers. Paraphrased, it suggests not to step into godlike objective observer roles and instead, to grant others that populate your construction at least the same cognitive and dialogical capabilities that you claim for yourself in constructing them; listen to others without losing the ground on which you stand – even if you don't like what you hear.

Thus, acknowledging that we cannot escape our own world constructions, that we cannot literally enter the worlds that others see, in order to respect the cognitive autonomy of observed others requires us to set aside a space within which they can construct their own world and in their own terms – without claiming superiority and without insisting on our theories or models of their constructions. Insisting on the latter would be a first-order understanding and enforce our way of being at the expense of that of others. This would not be dialogue but instruction.

For traditional scientists, theory had to be valid by observation. Social theories, I argue, should prove themselves in practice. However, in realizing that theories reside in language and bring forth the practices they describe, I am suggesting that social theorists respect if not learn to cherish multiple descriptions by different people. This is the basis for a concept of meaning that can form the ground on which conversations develop and dialogue can take place.

2.4. Meanings in Social Reality

Before our Coke bottle entered the bushmen's world, their culture undoubtedly furnished many stories that kept their environment – its tools, resources, and threats – meaningful and manageable. In the movie, discussed earlier, we hear talk, but without understanding what the bushmen are saying, we can say little about their reality, their world, other than what we see and what the narrator tells us. This obvious difficulty supports my contention that much if not all of our understanding relies on language and con-sensual interaction. Let me, therefore, turn to a more personal and perhaps for us more accessible experience and develop my notion of meaning in social reality from there.

The first time my children and I visited the arms and armor collection at the Philadelphia Museum of Art, where shields, helmets, swords, and firearms are displayed in neat categories, I noticed a suit of armor of blackened steel, inlaid with silver medallion. Its description informed us that Julius, Duke of Brunswick and Lüneburg (1528-1589), wore this armor during tournaments held on the occasion of his marriage in 1560 to Hedwig of Brandenburg (1540-1602).

This armor triggered a story from my childhood of the Black Knight of Brunswick who appeared at night to restore the rights of the disenfranchised and unfairly treated and punished the powerful perpetrators of injustice. He performed heroic deeds at a time when I know now that the knights had lost much of their political influence. I was excited to find his armor here and imagined that I probably was the only one in Philadelphia who knew the secret of this armor and could relate this story to my children.

Tales of courage and justice are familiar in many cultures and grow largely well after the fact. And not knowing who the Black Knight really was, was part of the fascination with this story. If he existed at all, I supposed, he must have lived some time after the Duke of Brunswick, who apparently lived a well-documented life. I was asking myself, how did the Black Knight

acquire the Duke's armor? Was he a descendant of the Duke? Who taught him the use of the sword? What informed his sense of justice? What happened after he died? – Questions that the professional curator of the exhibit seems not to have been concerned with.

Largely in response to my children's awakened curiosity about this armor, I began to wonder about what happened at such tournaments and how did the Duke participate in them. Who helped him into this complex garment, which consisted of numerous pieces? Did he have to prove himself to his bride? Was she at all interested in such manly games? Did he have real adversaries whose victories could have meant his defeat, or was the contest rigged, merely demonstrating the Duke's wealth, power, and privilege?

I tried to imagine what the blacksmith's shop that tailored the armor may have been like with its master and his journeymen piecing this remarkable artifact together, probably under the pressure of deadlines, with inadequate compensation, and daily visits by an evidently large-bodied Duke who may have been difficult to please, and demanding frequent adjustments. Having worked in metal once myself, I know how difficult it is to shape these complex humanoid forms, and I can barely imagine artfully inlaying them with silver.

In the 16th century, wars were actually fought. Wearing armor was not just to engage in a sport. It meant to protect the knight from the deadly swords of others. Armor is also heavy, it must have hurt simply wearing it, and it restricted the bearer's sight and movement to the point of making him extremely vulnerable to unexpected blows. Such armor also hid from the opponent the fear of being wounded if not killed as well as the joy of victory; none of these meanings could be seen in the hardware on display.

We know what happened to many of these armors. Those no longer wearable were either recycled or kept in special places to commemorate a glorious ancestor, perhaps the one from whom the family received its name, its coat of arms, its castle, and its wealth. After a war, victors robbed their victims of their prized possessions, their treasures, their armories, including their women, and brought them home where they became trophies that proved the victors' prowess.

In the 18th century, armor had become obsolete, knowledge of making it had all but disappeared, the knights lost their influence to the cities, and the princely armories fell into neglect. The only value remaining of such armor was the price it fetched by selling it to someone with "new wealth" but no family history. Then, armors became curiosities and conversation pieces. Private collections of fossils, coins, stuffed animals, masks, and exotic objects usually included a few swords, helmets, and armor parts. The motivations for such collections are not quite clear – except that antique dealers later fashioned their business out of the decorative functions such objects could be made to serve.

We do not know how the Duke's black armor fared in these transitions. But in a 1974 photograph of a private armory one can recognize it, but this time in a Gothic living room crowded with other medieval and Renaissance collectibles. Over a 70-year period, Carl Otto Kretschmar von Kienbusch who, at the end of his life, gave his collection to the museum, had visited European castles, museums, dealers, and other private collectors like him, and assembled what amounted to the probably best American collection of medieval and Renaissance armor. A brochure tells us of his connoisseurship, his unrelenting fascination with the lasting material evidence of a heroic era, informed by the Gothic Revival and the Romantic movements. He was a

major figure among a small group of wealthy collectors who knew each other well and competed to build private armories reassembling what had been scattered all over Europe – driven by a shared conception of what belonged together.

Now, in the Philadelphia Museum of Art's permanent exhibit, these pieces play yet another role. It is housed in a large white-walled room with several smaller rooms adjacent to it. There are a few noticeable Gothic markers, a fake lead window high up on the wall, a doorway framed with rough stones – as in a castle. Most of the armor is in showcases of glass, facing the visitor. The exhibit, as the word suggests, is limited to provide visual experiences. Getting a sense of how heavy these implements are, what it feels to wear a suit of armor, swing a sword, or fire a musket is made impossible. Its artifacts are ordered chronologically and by kind. The guides praise the pieces as outstanding specimens in their respective categories. School children scout out dates to fulfill assignments. There are no stories except for a short description near the entrance of how the collection was acquired. The curator's reason for arranging the pieces the way they are remains unquestioned, hidden behind a taken-for-granted factuality.

3. Conclusion

What does this tell us about the social reality of meaning? Let me build my arguments on the above accounts – imagined, recalled, or generally known – in six points.

First, these accounts support the contention, asserted earlier, that *things do not have intrinsic meaning*. Meanings are attributed by people who use these artifacts in particular situations, at particular times, and in interaction with other people. Attributions occur in language. For the bushmen our Coke bottle was something quite different from what it is to us, in fact, it had many uses and consequently meant many things that we cannot access without understanding their language, their culture. The armor had many uses too but a far longer history, as we know. Protecting the human body accounts for only a small part of its “etymology”. To its makers, the armor was proof of craftsmanship. To the Duke it was a garment that made his wedding memorable. To those who had done wrong, the sight of the armor, worn by the Black Knight, induced fear. To those who he helped, it was joyful relief. A family heirloom is not the same as a war trophy plundered from the defeated enemy. For the antique dealer the armor meant profit. In the museum it is a specimen in its proper category.

Second, the *two fixed references in all of these accounts are the narrator, I, and the object A* being talked about. I am constant, the armor takes the form of a presupposition, as discussed above. This does not make the armor a physical object. Physics cannot account for the uses of material things or for their functions. Yet, for visitors of the exhibit, the armor has an undeniable sensory presence. It is an armor, not a clump of metal of a certain composition, volume, and weight. The armor is numbered and labeled. It can trigger memories and recalls previous conversations in whose continuation it now enters as a focus. It occurs in variations of “*I see (an) A ...*” and serves as the ground for elaborating on B, A's meanings. This is the thread that strings different parts of the narrative into *a story*. This is a lot of things but physics.

Third, to conceptualize the multitude of meanings that artifacts can acquire in different contexts, I am relying on Lévi-Strauss' (1966) concept of “*bricolage*” somewhat liberally to suggest that our armor passed through many loose assemblages of artifacts, people, practices, and

events, jointly participating in the constitution of *systems of enacted meanings*: the shop of the armor maker, the tournament during which the armor was “performed”, a transitional society that made the hiding of a knight’s identity a virtue, the armory of a wealthy collector organized in conversations on medieval artistry among armament buffs, and the exhibit at the Philadelphia Museum of Art.

For Lévi-Strauss (1966), a *bricoleur* is someone who uses available means, not necessarily as originally conceived, adapting them in trial and error fashion to a current situation, and combining them with little regard for conventions of what should go with what else. To me, a bricolage is a relatively loose *ecology of artifacts, produced or at hand, whose uses are guided by conceptions that its many participants bring to it*. Complementary practices like buying and selling, winning and losing, even organizing an exhibit and visiting it, bring these artifacts into often novel interactions with each other. As they change users, they change their meanings. When institutionalized, such practices may systematically limit and refine appropriate conceptions and the interactions among artifacts. The 16th century guilds, the armaments they produced, the wars and tournaments that the nobility engaged in, and the codes of honor it defended, all of them worked together as do the 20th century universities, corporations, mass media, computers, software, networks and their stake holders. Artifacts can be seen as playing different roles in these ecologies. People collaborate in preserving their own conceptions of what their immediate environment should be, but have seemingly little concern for the whole bricolage, hence its heterogeneity. Whether we are concerned with bushmen, knights, antique dealers, or museum curators, artifacts that did not fit into existing bricolages were either actively removed or simply forgotten. The loss of much of the 16th century armor during the following century is evidence of this. Bricolages can collapse, evolve, or intrude into each other, and the artifacts that do survive successive bricolages are those able to acquire new meanings and stay fit during such transitions. The armor we see exhibited today was able to do just this during its long journey from the blacksmith to the museum.

Fourth, *through each transition from one bricolage to another some meanings are irretrievably lost*. After the Duke of Brunswick gets married, the blacksmith and creator of this armor recedes into oblivion. He had served his function and his craftsmanship is no longer an issue. The trophy that the victor takes from the armory of his defeated opponent destroys a family’s legacy if not its identity, and certainly the trigger of its memories. In the hand of antique dealers the pride and honor for which the knights fought with their armor are lost, just as a museum exhibit destroys the meaning that the armor had for its private collector. In fact, what we see at a museum is just another bricolage, one that is assembled and organized for a purpose that is alien to the succession of bricolages through which its artifacts passed and emerged as an outstanding exemplar of a modern curator’s categories.

Fifth, my role as a teller of the armor’s story is not much different from the curator, the collector, the knight, and the blacksmith – except that *I am composing in language only*. I took the liberty of tracing the one artifact that I wanted to understand, the suit of armor that seemed to belong into the story of the Black Knight of Brunswick, through other bricolages that I knew or could imagine and convey. I sketched a story of how this armor traveled through different bricolages, assuming different meaning to different people, interacting with other artifacts in ways that made sense to the participants in these bricolages, and ultimately to me. The notion of

a bricolage makes an artifact a temporary resident in one, en rout to another, where it is assigned different, perhaps entirely new meanings. The story that I told had the form:

I interpret A means {B₁ to C₁}, then {B₂ to C₂}, ..., then {B_n to C_n}

This, I propose, is *the form of stories in which social reality, including its artifacts become alive for us*, meaningful, and real. Things without a story may exist but have no meanings, no uses, no users, and no relevance in everyday life. Questions concerning meaning may be answered by simple impersonal propositions, as in the beginning of this essay. But any proposition, properly located in conversations, may coordinate its participants' lives including their use of available artifacts, and start or continue a story that goes outside its present telling, into imaginable pasts, into possible futures, and above all into other people's lives. Applying the above form invites us *to listen to the stories told by others whose bricolages we wish to understand and whose stories we therefore must retell with respect*. It manifests the kind of second-order understanding I suggested as being central to questions concerning social reality.

Regrettably, we learn of the bushmen's world construction only through an outsider to their culture, a narrator reading a script that, in the guise of being funny, actually is quite patronizing if not trivializing their culture. This is unfortunate because bushmen still have a voice to tell their own story – although, I am told, they now have cell phones as well. Still, they would be available to talk with us not merely to talk about.

I am convinced that the stories of artifacts with a longer history are constrained less by the fact that the sources of their meanings no longer speak to us but by overriding preferences for explanatory schemes that systematically ignore them. Scientific theory, for example, privileges detached observers who tend to dismiss or assign a lesser status to the voices of those involved. Semiotics' preference for "A stands for B" type two-world constructions offers no space for multiverses, heterogeneous assemblies of artifacts that may not stand for anything in particular. Finally, we know of many institutionalized systems of unambiguous categories that have administrative uses but typically are detached from human experiences, such as professional museum curators' categories.

By contrast, I am suggesting that we treat the artifacts that we have and the stories that survived the transitions from one bricolage to the next as the pieces that we can and do assemble into new bricolages that make sense to us. Given the choice between the kind of silence that exclusive reliance on material evidence demands and an informed closing of the gaps between what we know, I favor the construction of *etymologies of artifacts in the history of their users' voices*, to which I wish to add, *rearticulated with the compassion they deserve*.

Sixth, what difference could these suggestions make? Briefly, it encourages us to move from abstract objectivist theory to self-reflective human-centered accounts of our social worlds. To recap, in the context of use, I proposed that we locate meanings in the *possible practices that artifacts afford and its users can envision, differentiate, and enact*. Accordingly, and given the enormous creativity of human perception, objects in nature become no longer distinguishable from cultural artifacts – at least for the current purpose.

In the context of dialogue, I suggested that *we consider meaning as explanations of multiple descriptions by different users, bystanders, or stake holders of artifacts*, what accounts for apparent discrepancies, and how they are rearticulated or drop out of *the stories told, passed on, and performed*. Differences of this kind do not exist without acknowledgement², and to make sense of them, we must respect multiple word constructions and be fair to each of them.

In the context of larger social realities, I recommended that we concern ourselves with ecologies of artifacts whose affordances and constraints account for many temporary opportunities and stabilities in our social life. While technological artifacts may be engineered, ecologies cannot. I see *bricolages as being linguistically coordinated, assembled, disassembled, or reconstructed with novel artifacts*, collectively supporting institutions that in turn nourishes artifacts selectively. I call these ecologies *bricolages* to emphasize the haphazardness of their assembly and the multiplicity of roles that material artifacts and we, humans, can play in them. Entering a bricolage as one thing and moving to another as something else is typical. What holds bricolages together and keeps them alive is not a plan, a design, a grand theory, but *the telling of a multitude of stories – myths, as well as technological know-how – by its human constituents*.

Since meaning does not exist in the abstract or in the materiality of signs or text, it cannot be experienced without people acknowledging their multifaceted worlds, making sense out of diverging accounts of their artifacts, and braiding these accounts into conversations with others. What I was advocating is to put ourselves into the bricolages we are narrating. It would be a mistake, therefore, to categorize this paper as a meta-narrative, one that is about the narratives of others. All stories elaborate on the stories of others. All bricolages grow out of the remnants of past bricolages. Writing can enrich our current understanding by respecting the conceptions of our predecessors. We need to acknowledge this simple truth, move on, and oppose meaningless theoretical frameworks that prevent us from recognizing our own participation in the social reality we are construction in language.

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² Here, I am relativising Bateson's (1972:448-465) notion of difference – his definition of information as the difference that makes the difference, for example – to the human action that produce them. I am taking a difference to be the results of drawing a distinction. Whereas differences seem to be objective, distinctions are acts performed by someone, an actor, a human being.

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