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Social Organizations as Reconstitutable Networks of Conversation

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Abstract

This essay intends to recover human agency from holistic, abstract, even oppressive conceptions of social organization, common in the social sciences, social systems theory in particular. To do so, I am taking the use of language as simultaneously accompanying the performance of and constructing reality (my version of social constructivism). The essay starts with a definition of human agency in terms of its linguistic manifestation. It then sketches several leading conceptions of social organization, their metaphorical origin and entailments. Finally, it contextualizes the use of these metaphors in conversation, which leads to the main thesis of this essay that the reconstitutability of networks of conversation precedes all other criteria of the viability of organizational forms. The paper transcends the traditional second-order cybernetic preoccupation with individual cognition – observation and description – into the social domain of participation.

Keywords

Organization, Metaphors, Conversation, Agency, Reconstitution

Disciplines

Anthropological Linguistics and Sociolinguistics | Business Administration, Management, and Operations | Civic and Community Engagement | Communication | Communication Technology and New Media | Discourse and Text Linguistics | Epistemology | Interpersonal and Small Group Communication | Organizational Communication | Speech and Rhetorical Studies | Theory, Knowledge and Science

Social Organizations as Reconstitutable Networks of Conversations

Klaus Krippendorff¹

This essay intends to recover human agency from holistic, abstract, even oppressive conceptions of social organization, common in the social sciences, social systems theory in particular. To do so, I am taking the use of language as simultaneously accompanying the performance of and constructing reality (my version of social constructivism). The essay starts with a definition of human agency in terms of its linguistic manifestation. It then sketches several leading conceptions of social organization, their metaphorical origin and entailments. Finally, it contextualizes the use of these metaphors in conversation, which leads to the main thesis of this essay that the reconstitutability of networks of conversation precedes all other criteria of the viability of organizational forms. The paper transcends the traditional second-order cybernetic preoccupation with individual cognition – observation and description – into the social domain of participation.

Imagine, they gave a war and nobody showed up
Carl Sandburg²

Human Agency

It is common to associate human agency with the capacity to make choices that cause changes in the world. As such, human agency is closely associated with free will, the philosophical doctrine that distinguishes choices from unthinking causal determinisms. This doctrine also posits that the capacity of humans to act is individual. *Freedom* is another largely individualist if not mentalist and certainly politically loaded idea. Heinz von Foerster (1992, p. 14) touched upon human agency by connecting it with formal indeterminacy when he proposed “Only those questions that are in principle undecidable, we can decide.” I agree. Where the answer to a question is not obtainable by applying a logical procedure or algorithm, human agency can be exercised to propose one. I deviate from these conceptions, however, and consider human agency a social phenomenon that reveals itself in the practice of accountability.

The idea of accountability can be traced to C. Wright Mills's (1959) study of *The Power Elite* in the U.S. To obtain data on his topic, Mills inquired into what happened inside that elite by visiting boardrooms, observing meetings and social events where decisions were made and implemented; and where power was exerted, yielded, and

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1. Gregory Bateson Professor for Cybernetics, Language, and Culture, The Annenberg School for Communication, University of Pennsylvania. Email: kkrippendorff@asc.upenn.edu
 2. This phrase, often attributed to Bertolt Brecht was multiply translated from Carl Sandburg (1936). *The People, Yes*. New York: Harcourt, Brace. Page 43: “Sometime they’ll give a war and nobody will come.”

contested. He soon realized that the traditional macro-theoretical conception of power was too simplistic, and discovered the richness of language used there: language not as a medium of influence, as envisioned by rhetoric; not as a medium of representation, as conceived in the abstract objectivist notion of language of the enlightenment; but as interactions during which the meanings of decisions are created, accepted or dismissed. In a landmark paper, Mills (1940) described the vocabulary of motives that decision makers use to justify their proposals and actions. His approach developed further (Scott & Lyman, 1968; Shotter, 1984; Buttny, 1993) and is now discussed in terms of accountability.

To me, accountability manifests human agency, not in terms of individual/psychological conceptions, for example, in terms of intentions, awareness of alternatives, or rational criteria for decision making or choices, but in terms of the accounts that human actors give to each other in response to requests or in anticipation of being held accountable for what they say or do. The two kinds of accounts in which agency becomes socially manifest are excuses and justifications.³ Both are conversational moves.

- *Excuses deny that an actor had agency.* They acknowledge that something untoward has happened but attribute it to causes not under the actor's control, for example, accidents, lack of information, or being under the influence of or command by someone else.
- *Justifications, by contrast, acknowledge an actors' agency.* They are offered by actors who assume responsibility for a given situation, are convinced of the virtue of their actions, and expect others to see their virtue as well.

Accounts may be accepted or not. Rejecting an account may lead to further requests for accounts until the participants in the conversation are satisfied and willing to go on to other issues. The acts of offering, accepting, and rejecting accounts manifest human agency regarding the use of language, even if agency is denied regarding particular occurrences.

The adequacy of accounts does not depend on whether they are true or false in any objective sense, but on whether they are accepted as adequate *within* the conversations in which they are offered. Validity could become an issue, but only if knowledge of what an account claims is deemed relevant and available to those considering it. Typically, accounts appeal to prevailing values or ethical considerations. Whether they prevail indeed, depends not on anyone's unasserted convictions but on being accepted as adequate.

According to John Shotter (1984), people do not speak and act in the presence of others without having appropriate accounts ready if requested. Moreover, people do

3. A third account, incidentally occurring most frequently in conversations, is explanation. Explanations have to do with understanding. They indicate conversational competence and cognitive autonomy and have the effect of coordinating understanding, without the assumption of sharing. This ability and its consequence is only marginally related to human agency and not central to this essay.

not offer accounts without anticipation that they have a chance of being understood and accepted by those who matter to them. Thus, explicit human communication always takes place against the background of an implicit operating consensus regarding held values, plausible reasons, and coherent constructions of reality. Where this background is at odds with the articulated foreground, accounting practices bring that operating consensus to the surface and renegotiate it as needed.

Cognitive correlates of conversation, even intents to deceive, are irrelevant unless someone suspects such motivations to be disingenuous, challenges them by requesting appropriate accounts that either expose them or puts the suspicion to rest. The absence of accounts signals acceptance of what was said and done for no apparent reasons.⁴

Accepting excuses certifies a participant's lack of agency in the instance in question, and accepting justifications credits if not expresses appreciation of a participant's exercise of agency in that instance. Thus, human agency, surfaces in accounting practices, and as such is an entirely social and interactive phenomenon, not divorceable from the conversational use of language.

The Metaphorical Grounding of Social Organization

Social organizations exist only virtually. One cannot point to them. One cannot observe them. One cannot talk to them. Yet, people can practice them as members and receive something in return for their participation or are affected in interactions with people who act in the name of an organization. This virtuality invites the use of metaphors to understand and live with their objectifications. It is not surprising, therefore, that most theories of organization rely on metaphors to characterize their objects. What theorists rarely realize, however, is that all metaphors have entailments that unwittingly direct their users' attention to particular features worthy of investigation (Lakoff & Johnson, 1980). Acting on these entailments has ontogenetic implications, here, constructing what organizations "really are." Let me sketch the metaphorical origin of five key conceptions of organization.

- *Family metaphors* are of ancient origin. It is easy to see how the basic idea of family, consisting of individuals and including responsible adults, is metaphorically extendable to larger social forms: tribes, feudal forms, monarchies, even the Catholic Church. One entailment of the use of family metaphors is that members have no choice regarding where they belong, are child-like, and in need of having to be taken care of by those privileged or more knowledgeable. So, rulers have to take care of their subjects, and priests see themselves as shepherds of their followers.

4. The unproblematic acceptance of what is said or done includes the acceptance of authority/dependency relations. However, denying accountability or punishing those who are asking for it, which ends up in the fear of holding authorities accountable for what they say and do manifests the exertion of power—I would say "illegitimate power" inasmuch as accountability is a universal of language use.

- *Machine metaphors* of social forms emerged in the industrial era. Factory owners did not own their workers but hired them to perform specific functions which they designed in the service of their factory's purpose. This metaphor made factory workers replaceable when they turned out to be inefficient or defective, like the parts of a machine. Machine metaphors also introduced logical hierarchies with the functions of ordinary workers below and various levels of supervisory functions above them, always leading to factory owners who had no responsibilities to anyone but to that factory yielding a profit as a whole. Max Weber described prototypical bureaucracies (incidentally during the same era) in terms of rational differentiations and assignment of functions to impersonal offices. Their structure logically followed from the overall purpose, (form follows function) and office workers had to perform according to specifications, satisfying the overall design.
- *Biological metaphors* are responsible for the very word *organization*, literally the shaping of something into an organism. Much like machines, organisms tend to be analyzed in terms of hierarchies of functions.⁵ However, biological metaphors do not insist on the replaceability of the members of social organizations (see the concept of autopoiesis, Maturana & Varela, 1988) but on harmonious collaboration among them, but always with the larger whole in mind. Collaboration demands that members adjust their functions relative to each other and subordinate their collaboration to an organization's well-being. Conflicts that could arise within organizations, the analogue of diseases, are considered dysfunctional and in need of resolution to restore normality. Parsons (1951) *Social System* and Bertalanffy's (1968) *General System Theory* exemplify metaphorical generalizations of biological organisms.
- *Person metaphors* are at home largely in legal discourse and politics. Legal discourse considers corporations as entities that allow groups of individuals to act as if they were a single composite individual for certain purposes, for example, lawsuits, property ownership, and contracts. By extending laws, originally regulating individual conduct, to corporate entities, legal scholars encountered difficulties and aptly consider corporate personhood a "legal fiction." In politics, states are often personalized as friendly, hostile, authoritarian or democratic, or trustworthy. The attribution of individual characteristics to countries typically directs international relations. Person metaphors of social organization entail little about the nature of individual membership, except that they enable designated individuals, spokes persons, presidents, CEOs, or hired lawyers to represent and speak for them in particular proceedings.

5. It is not entirely clear whether the etymology of "function" is routed in technology or in biology. In any case, it is now a defining concept of biological discourse, enabling explanations of how the parts that biologists distinguish within an organism interact in the service of that organism as the a whole entity. Engineers consider functions in their analysis of technological artifacts with the difference that technical functions are intended by design, whereas biological functions offer useful part-whole explanations.

- *Network metaphors*, communication nets in particular, focus attention on the relations among component parts of social organizations. Connections may be close or far apart, direct or indirect, or used heavily or lightly. Calling networks heterarchical suggests them to be antithetical to hierarchies. Hierarchies, however, are mere special cases of networks. Network metaphors of organizations say little about who occupies the nodes of a network – individuals, offices, or whole organizations. There is no implication of functions, suggesting that wholes do not determine the nodes. Networks may cross the boundaries of particular organizations.

Etymologically, family metaphors gave way to machine metaphors. U.S. slavery occurred in that transition. Slaves were traded but still had to be cared for. Machine metaphors were vastly enriched by the introduction of biological metaphors, still dominant in the current literature on organizations. Network metaphors liberalize the biological ones but have not replaced them as is evident in suggestions that organizations *have* networks, for example of communication (Monge & Contractor, 2003). I shall make use of the network metaphor below, suggesting that organizations *are realized* in networks of conversations.

All metaphors have entailments (Lakoff & Johnson, 1980). Except for network metaphors, the above metaphors share three quite unfortunate ones.

(1) *Organizations are whole entities*. At least legal discourse acknowledges that corporations are legal fictions; not in the awareness of their metaphorical construction, but in the experience that corporations—unlike individual human beings—do not speak and thus complicate issues of legal accountability. Organizational theorists rarely recognize the metaphorical ground of their concepts of organization and look for evidence of what are their entailments outside of language. Indeed, such evidence can be found in the enduring manifestations of organizational identities: the consistent use of their names, logos, and uniforms for employees; the buildings, equipment, products, and other assets in their name; and various published records, addresses, advertisements, the trading value of their stocks, and various statistics. Consistent with the idea of organizations as entities is the idea that their manifestations persist for some time. When they exceed the life span of their individual members, these metaphors encourage the belief that organizations are more real and more important than their human constituents.

But it is in language that such manifestations are identified with particular organizations and it is in language that they could vanish by disuse.

(2) *Organizational members continue in their organization*. This is obviously misleading. Unlike machines and biological organisms whose parts or organs cannot rearrange themselves and are permanently in place and coupled to each other, people cannot be so tied up. Most social organizations cease activity after working hours, on weekends and holidays, in the absence of appropriate members, but may reconstitute themselves under certain conditions. People have choices to participate in various

social organizations, typically sequentially. Theories of the internal working of social organizations, which account for almost all organizational research, cannot reveal how organizations are constituted or what creates their reality and for whom.

(3) *The viability of the whole determines the practices of its parts.* This whole→part determinism leads to theories of organizational hierarchies, how power is exercised, and how members of an organization, as a condition of being its member, perform the functions necessary to sustain it. Yet, wholes cannot exist without their constituent parts. Wholes are abstractions that reside in language, including in conversations among the constituents of organizations. Theories that make use of these metaphors effectively reverse the actual determinism involved and are unable to explain how organizations could arise. Such theories of organization are theories of how human agency can be suppressed and directed to abstract ends.⁶

Reconstitutability

To recover human agency in conceptions of social organization I am suggesting that the central feature of all social organizations is not their persistence and overall well being but their *restitutability* at different times, with same or different people, and perhaps at different locations.

As already suggested, social organizations do not require continuous existence. A parliament is sometimes in session and mostly not. Taking a seminar at a university, means showing up for agreed upon periods of time, actively participating as a student, but thereafter being free to participate in other organizational forms: eating with co-students at a dining hall, taking part in a political discussion, competing in a sports event, working at a job, populating traffic on the way home, and partying with friends. When the right number and kind of people meet at the right time, such as when employees show up for work at 9 am or when the members of a family sit down for a dinner conversation after everyone worked at various places, appropriate organizational forms can arise.

Individuals who repeatedly reconstitute the same social organizations know each other well and when they meet after a period of practicing other organizations, they may continue where they had left off. In periods of inactivity, a social organization is reduced to a mere possibility.

Not all organizations are reconstituted by a bodily same set of individuals. For example, a court of law comes into being when a case is to be adjudicated, all required constituents are present, and constituents conduct themselves as expected. That court may, however, involve a different cast of individuals each time. The reconstitutability of a court of law is *institutionalized* in the sense that its organizational practices are well known by potential participants who may signify their qualifications to each other. The signification of qualifications is evident in doctors wearing white coats while patients do not; in police officers using flashing lights on their cars while

6. Incidentally, this picture of organization is of prime interest to managers of organizations or their CEOs who tend to assume the ability to control their members by defining the purposes of the whole.

ordinary drivers would be prosecuted if they do; in shop keepers standing behind a counter and customers in front of it; and in car mechanics wearing typical working clothes and disallowing clients from entering their workshop. When such signifiers are reliably recognized, and complement one's potential role in a desired organization, it is easy for the potential constituents of an organization to fall into their roles.

Institutionalization may involve impersonal signifiers, place holders that enable individuals to move into institutionally defined spaces: an empty seat on a bus, the public space in a bank, a job application form, or a theatre ticket. Such signifiers invite or license an actor to become a particular constituent of a social organization – a rider on a bus, a bank customer, a job applicant, or a member of a theatre audience – temporarily, by choice, and in the knowledge of what is expected by occupying these places.

Most importantly, reconstitutability presupposes human agency. If individuals would not initiate interactions that reconstitute a social organization, that organization could not come into being. The process of reconstitution distinguishes social organizations from machines, whose parts do not know each other and are assembled by a designer or user, and from organisms that have evolved and must maintain uninterrupted autopoiesis (Maturana & Varela, 1988) as a condition of their living. Even families cannot exist without the bodily participation of their members, whatever their relationships may be. All social organizations are either active, dissolved and waiting to be reconstituted when potential constituents so desire, or have ceased forever. Examples of no longer reconstitutable organizations are lost crafts, dead languages, and dictatorships after a true revolution.

The ability of individual actors to reconstitute a social organization supersedes all other conditions of a social organization's viability. For example, there are viable organizations that make no profit. There are viable organizations that shrink in size. There are viable organizations whose members do not get paid but have to pay their way into it. There are viable organizations that have no apparent utility, like birthday parties or soccer games. There are viable organizations whose members dread what they are asked to do but do it anyway. But there are no social organizations whose members refuse or are unable to reconstitute them for whatever reasons.

Social organizations in which some constituents hold other constituents captive in continuous membership, like in prisons or slavery, offer the latter no alternatives to realize themselves in diverse social organizations, prevent them from developing their own identities, robbing them of their inalienable human agency. Theories of social organization that attend only to how individuals function within organizations flirt with totalitarianism by failing to recognize or deliberately ignoring that individual members of an organization voluntarily, contractually, and temporarily trade some of their human agency for the benefits of participating in that organization, regardless of their motivation. Since reconstitutability is a prerequisite for social organizations to come into being, human-centered research needs to turn its attention to why individuals are willing to give up some of their human agency for benefits they might

be receiving while participating in social organizations, and how they manage to reconstitute organizations and negotiate their participation.

Networks of Conversations

I am suggesting that all social organizations are realized, come to life, as networks of conversations (Ford, 1999; Fonseca, 2002, p. 47ff; Krippendorff, 2004, pp. 66-68; Kimberley & Fernbach, 2006). *Conversations* are self-organizing, more or less free flowing verbal interactions among mutually identifiable human actors (Gadamer, 1982, pp. 330-341; Holquist, 1990, pp. 40-66; Nofsinger, 1999; Todorov, 1988; Buber, 1958). Conversations are cooperative practices and what they leave behind are joint accomplishments (Shotter, 1993). Networks of conversations network these practices. Accordingly, organizations are not entities but conversational practices. People practice organization as participants. This is the gestalt switch needed to escape the determinism entailed by the above mentioned metaphors of social organization. In conversations one can distinguish utterances between turns of talk (Volosinov, 1986, pp. 45-98), performatives (Austin, 1962), including the above-mentioned accounts, recursive con-sensual coordinations of actions (Maturana, 1988), speech acts like assertives, expressives, directives, declaratives, and commissives to engage in certain activities (Searle, 1969), language games (Wittgenstein, 1958), stories (Fisher, 1987), and artifacts (Krippendorff, 2006). Conversations are prototypically face-to-face, but may take place also by telephone and electronic communications. The number of participants in a conversation is usually limited to the amount of attention individuals can devote to each other. While it is possible for people to meet in numbers that make individual identifiably difficult – public performances, religious gatherings, or political demonstrations, which include spectators – these meetings almost always are the outgrowth of preceding conversations, temporally make some participants featured performers and others silent but necessary observers, but are likely to fuel subsequent conversations. All conversations coordinate the activities and reality constructions of their participants.

Minimally, conversations leave behind their own histories of what happened, available to all who contributed to them, which serve as the expanding ground for future conversations. Most conversations accompany, define and direct ongoing activity, whether consuming food during a dinner conversation, negotiating a document to satisfy all those present, or committing participants to a policy or course of action and monitoring its results. The realities that may emerge in conversations are not entirely cognitive as Glasersfeld (1995, 2008) insists but social in the sense that they are being coordinated across individual constructions, usually in mutual respect for their differences (Krippendorff, 1996).

Conversations may become networked in at least four ways.

- (i) Most often, conversations are networked *sequentially*, with participants moving from one conversation to another, taking what had transpired in preceding

conversations into a current one. Supervisors may so move, introducing coherences that coordinate conversations in effect. So does the complement of supervision: delegation to conversations among representatives of previous conversations. But more typical is that members or organizations rotate through various conversations concerned with different topics of organizational significance.

- (ii) Conversation may become networked *operationally*, such as when the products of one part of an organization serve as the prerequisite for another part to proceed. Operational networks tend to be more horizontal with participants engaged in negotiating the interfaces between their respective conversations.
- (iii) Conversations may also be networked *emotionally* and *informally*, like among friends, people who share extra-organizational interests, or acquaintances willing to do each other favors.
- (iv) Conversations may be networked by *sharing documents* generated in one conversation and made available to others. The reading of documents – reports, rules, and resolutions – can network conversations without direct human contact. Texts circulating in a network of conversations may preserve histories of organizational practices beyond the capacity of individual memories and regulate that network.

Coordinating a network of conversations takes place entirely within that network and consists of conversations about conversations that recursively construct their own conversational realities (Shotter, 1993). As individuals move through various conversations, that network may become more coherent and navigable for its participants. A crucial ingredient of this coordination is the development of vocabularies about conversational practices, including motivational mission statements, working schedules, network ethics, operational practices, success stories, logos, and products – all of which are conversational accomplishments that can give the participants in conversations a sense of making a difference and feeling to belong.

One cannot prevent the above metaphors of organization from entering networks of conversations and causing their entailments to be realized therein, as is common. I am suggesting that the vocabularies of current theories of organization, which may well be regarded as expert accounts, have the effect of concealing their conversational nature, reifying the holistic, abstract, and functional conceptions of organization they describe, and denying places for human agency. This does not need to be so and this essay hopes to discourage the unreflective use of such metaphors in networks of conversation.

In other words, the vocabularies, which are saturated with the above-mentioned metaphors of organization, should be replaced (Rorty, 1989) by vocabularies of the conversational moves that individuals may or may not want to make in reconstituting networks of conversations and *practicing organization*. Practicing organization may well involve suspending some human agency otherwise available, but now reflectively, for limited times, not unconditionally.

Infrastructures of Organization

The reconstitutability of organizations is enhanced when the *histories of conversations* are not merely remembered by their participants, but also encoded in reusable infrastructures: human bodies, texts, and technological artifacts.

Human bodies are not merely biological phenomena. The body we know as ours has passed through a complex history of socializations, causing successful habits, memories, and abilities to develop that, without access to that history, may well appear natural and common. Literacy is just one example. Language is a human artifact with reading and writing being a later invention that has transformed society as it has trained the human body to be part of it. As Bakhtin reminds us, the words we read and write are learned, but their origins are mostly forgotten (Holquist, 1990), together with the alternatives they replaced. We read nearly automatically without knowing how we do it. The word *nearly* is important because human agency, as I defined it, is the exception to bodily automatisms.

Texts may be read

- (i) As protocols of what transpired in prior conversations. Such protocols may avoid repetition and may serve as an efficient way to induct newcomers into to a conversation. This essay could be regarded as a protocol that acknowledges voices from previous conversations I had, for example with James Taylor from Montreal, Pille Bunnell from Vancouver, and others who commented on its first draft, as well as the works of other authors mentioned
- (ii) As exemplars to be reconsidered or rules of conduct that have proven useful in the past of some conversations, to be generalized to other conversations
- (iii) As contracts to temporarily suspend one's agency in collaboration with present and future practitioners of organization, fixing individual commitments to perform organizational practices inside and across the boundaries of an organization.

Identifying something as text presumes its readability, nothing more. As such, texts contain nothing, mean nothing, possess no symbolic or sign qualities, and convey no information on their own. The meaning of text arises in the process of reading it. Literate bodies make it difficult to read a text idiosyncratically. Conversations coordinate the reading of texts. When reading jointly, starting with parents reading to their children and continuing to discussing a text at a graduate seminar, reading becomes coordinated among participants who can always ask “what do you mean by that,” including “I do not understand, please explain” (Krippendorff, 2008). This does not mean that readers read a text the same way, only that answering questions about the meaning of texts amounts to a con-sensual coordination of their interpretations. The reader of documents retrieved from the internet assumes that its author is similarly coordinated. Hence reading assumes belonging to the same or a similar community.

In organizations, all texts have memory and regulative functions, *memory functions* in as much as texts extend the accessible history of recurrent conversations beyond the lifespan of individual participants, and *regulative functions* as they

encourage desirable conduct or commit members to perform certain tasks. For example, when an organization is considered a legal entity, members are required to conform to certain practices, regarding fellow employees, the public, the court, and the state. These requirements certainly direct their conversations.

Networks of conversations are likely to institutionalize their recurrent conversational practices, using *technological artifacts* that improve these networks' efficiency: telephone lines, archives, and computational devices for transmission, storage, retrieval of documents. Such artifacts trade two consequences. On the one hand, they extend desirable human dimensions such as communicating across distances not reachable by the human voice or browsing the internet for documents that would take an individual's life time to find. On the other hand, they impose constraints perhaps considered less important such as using text instead of voice, smell, and touch. Technological infrastructure also includes buildings to house face-to-face conversations, workplaces whose proximity facilitates informal conversations, and access to communicational artifacts.

Revisiting Human Agency

I oppose trivializing the concept of human agency by attributing agency to texts and technological artifacts as in actor-network theory (ANT) (Latour, 1998, 2005). As already suggested, texts are created within a community and acquire meanings by its literate members reading them. Texts may be read for pleasure, information, providing instructions, as declarations, promises or threats. Although speech act theory claims illocutionary forces at work (Searle, 1969), the consequences of reading and acting on what is read or listened to is not causally determined—notwithstanding that literate bodies can be trained to give this appearance. The literary conventions of a community merely favor some readings more than others and thus limit the range of acceptable interpretations. It is not far fetched to extend the notion of literacy to the human use of technological artifacts. Computer literacy is an obvious example. It needs to be acquired. And so is driving a car which is subject to numerous laws and requires one's coordination with other drivers. While technological artifacts exhibit physical constraints on their usability, which are almost completely absent in texts, the use of both is subject to conventions, not inherent to them.

ANT attributes agency to texts and artifacts inasmuch as they impose constraints on their readers or users—just as Niklas Luhmann (1995) attributes agency to communication by suggesting that it produces further communication, regardless of what people do with them. True, in everyday life we might blame a car for breaking down on us and say that a computer guides us through the steps to purchase an airline ticket, but these are artifacts of grammar. Standard European languages happen to provide the option to connect active subjects and passive objects by predicates. But language has other constructions as well. It is also true that the instructions from a boss weigh more than a marginal newspaper story. But this unequal weight does not stem from exposure to a text but from how one's relationship to its author is

conceived. The Bible is important to Christians but means little to those who do not believe it to be the word of God. For Latour, an *actant* is anything that behaves, affects something else, or is seen as the source of activity. He conceives human actors as a subspecies of actants and takes from semiotics “the crucial practice to grant texts and discourses the ability to define also their context, their authors –in the text–, their readers –in fabula– and even their own demarcation and metalanguage. All the problems of the analyst are shifted to the ‘text itself’” (1998, p. 6).

In response to Latour I wish to point out that one cannot hold texts accountable for how readers read them. Texts contain nothing. Their meanings arise in the process of reading and coordinating one’s reading in conversations with other readers. In this sense, meanings are dialogical accomplishments (Krippendorff, 2003). The illocutionary forces that speech acts supposedly possess cannot compel readers to act. They are generated in the process of reading. Texts cannot speak for anyone unless readers imagine their authors from previous conversations. They cannot provide information unless readers read them in the context of what interests them. Texts cannot object to their interpretations. If texts constrain then only because readers construct their meanings as limiting their choices. If texts open opportunities then only because readers come to see opportunities not realized before. Texts do not talk, readers do, including about how they read them. Theorizing the agency of text effectively trivializes human agency.

Attributing agency to technological artifacts amounts to a similar trivialization. All artifacts are created and put in place by human agents. Some artifacts, once set in motion may proceed without further human attention – thermostatically controlled home heating systems, traffic signals, automatic pilots and algorithms for buying and selling stocks. Mechanisms like these are computationally, structurally, or causally determined, but their use is not. Some artifacts survive their creators, cities for example. Settling on cars as a preferred means of transportation, may preempt options available to future citizens. However, options and possibilities are concepts associated with human agents, not with physics. Matter matters but does not determine what human agents do with it. Technological artifacts, like texts, do not speak, cannot account for how they are being used, and what they end up doing.

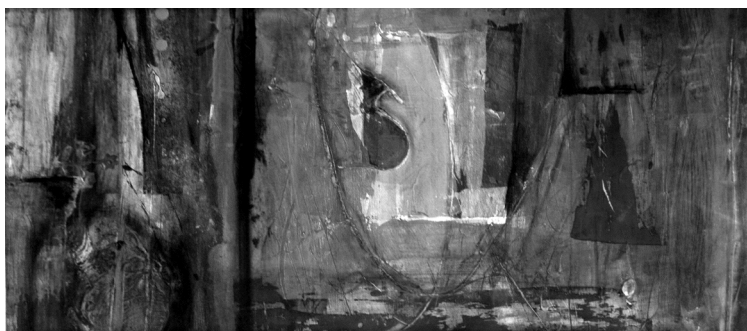
Attributing agency to non-human entities is way of absolving one’s agency. In accounting terms, such attributions are excuses. When accepted, they results in a loss of autonomy and deny future accountability. Thus, trivializing human agency needs to be discouraged.

For the implications of this essay to cybernetics see Klaus Krippendorff (2008, pp. 173-184 in this issue of C&HK)

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