Autopoiesis
What is Communication?

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by Niklas Luhmann

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I

My purpose is to criticize the common understanding of communication and to replace it with a different version. But before I begin I would like to make some remarks about the scientific context in which this change is to be accomplished.

I can begin from an uncontested fact. The well-known distinction between psychology and sociology, and over a hundred years of specialized research, have led to the understanding that psychical and social systems can no longer be integrated. No researcher can survey the entire body of knowledge in either of these disciplines. However, this much is clear — in both cases we are concerned with systems that possess highly complex structures and whose dynamics, for any observer, are opaque and incapable of being regulated. Nevertheless, there are always concepts and theories that ignore this or try to screen it out systematically. In sociology the concepts of action and communication belong to the residue of such an *attempt*. Normally they are employed in reference to a subject. This means that they assume an author, characterized as an individual or subject to whom the action or *communication can be attributed.*

Therefore the concepts of "subject" and "individual" function as empty formulas for an, in itself, highly complex state of affairs falling within the domain of psychology and no longer concerning sociology. If one challenges this interpretation — and that is what I intend to do — then one usually encounters the objection that ultimately it is persons, individuals, or subjects who act or communicate. On the contrary, I would like to maintain that *only communication can communicate* and that only within such a network of communication is what we understand as action created.

My second preliminary remark concerns the interesting recent developments in general systems theory or the cybernetics of self-referential systems that earlier were found under the title of self-organization but are currently under the title of autopoiesis. The present state of research itself is incomplete and controversial. But an epistemologically satisfactory reformulation of the theoretical means of investigation — encompassing biology, psychology, and sociology — is clearly visible. Those who prefer a multileveled architecture can, in this case, observe a reformulation of theory that occurs on several different levels at the same time and that also calls into question the distinction of levels that logic suggests. Contrary to the basic assumptions of the philosophical tradition, self-reference (or reflexiveness) is not a property peculiar to thought or consciousness but instead a general principle of system formation with special consequences for the structure of com-

plexity and evolution. An unavoidable consequence of this is that there are many different possibilities for observing the world, depending on the reference system that is taken as basic. Or in other words, evolution has led to a world that has many different possibilities for observing itself without characterizing any one of these possibilities as the best one. Every theory that addresses this issue must find itself at the level of observing observations — at the level of second-order cybernetics in Heinz von Foerster's (1981) sense.

My question is now, how does a sociological theory of social systems appear if it seriously tries to address these theoretical developments? My suspicion is that one must not begin with the concept of action but with the concept of communication. For it is not action but rather communication that is an unavoidably social operation and at the same time an operation that necessarily comes into play whenever social situations arise.

In the main part of my presentation I would like to try to present a corresponding concept of communication, one that avoids all reference to consciousness or life because it is situated on a different level of the realization of autopoietic systems. But I must at the same time caution that this is not to be taken to mean that communication is possible without life and consciousness. It is also impossible without carbon, without moderate temperatures, without the earth's magnetic field or the atomic cohesiveness of matter. In view of the complexity of the world, not all the conditions of the possibility of any state of affairs can be included in this concept because then it would lose all contour and ap-

plicability for use in the construction of theories.

II

Just like life and consciousness, communication is an emergent reality, a state of affairs *sui generis*. It arises through a synthesis of three different selections, namely, selection of *information*, selection of the *utterance* of this information, and a selective *understanding or misunderstanding* of this utterance and its information.

None of these components can be present by itself. Only together can they create communication. Only together — and that means only when their selectivity can be made congruent. Therefore communication occurs only when a difference of utterance and information is understood. That distinguishes it from the mere perception of the behavior of others. In understanding, communication grasps a distinction between the information value of its content and the reasons for which the content was uttered. It can thereby emphasize one or the other side. It can concern itself more with the information itself or more with the expressive behavior. But it always depends on the fact that *both* are experienced as *selection* and *thereby* distinguished. In other words, one must be able to assume that the information is not self-understood but requires a separate decision. This is also true when the utterer utters something about himself or herself. As long as these distinctions are not made we are dealing with a mere perception.

It is of considerable importance to retain this distinction between communication and perception, although, and even precisely because, communication provides many possibilities for

an accompanying perception. Nevertheless, a perception remains above all a psychical event without communicative existence. Within the communicative process it is incapable of immediate connection. What another has perceived can neither be confirmed nor repudiated, neither questioned nor answered. It remains enclosed within consciousness and opaque for the communication system as well as for another consciousness. Of course, it can become an external occasion for successive communication. Participants can mention their own perceptions and the accompanying interpretations of the situation in the communication, but only according to the laws proper to the communication system, for example, only in the form of language, only through taking into consideration the amount of time involved, only through appearing, making one's presence felt and explaining oneself—thus only under discouragingly difficult circumstances.

In addition to information and utterance, understanding is a selection, too. Understanding is never the mere duplication of the utterance in another consciousness but a condition of connection with further communication in the communication system, that is, a condition of the autopoiesis of social systems. Whatever the participants may understand in their own self-referentially closed consciousnesses, the communication system works out its own understanding or misunderstanding. And to this purpose it creates its own processes of self-observation and self-control.

One can communicate about understanding, misunderstanding, and nonunderstanding—of course, only under the highly specific conditions of the autopoiesis of the communication system and not simply as the participants would like. Thus the utterance "You don't understand me" remains ambivalent and communicates this ambivalence at the same time. On one hand, it says, "you are not ready to accept what I want to tell you" and attempts to provoke the admission of this fact. On the other, it is the utterance of the information that the communication cannot be continued under this condition of nonunderstanding. And third, it is the continuation of communication. It is thus paradoxical communication. The normal technique for dealing with difficulties of communication is simply further inquiry and clarification in the normal, routine communication about communication without any particular emotional burden. And this normal routine is broken by those who try to assign the failure or the danger of failure of communication within the communication itself. "You don't understand me" only camouflages the difficulty of the problem of acceptance or rejection with a semantics that suggests that the problem is, nevertheless, to be solved through communication about communication.

III

What is new about this concept of communication? And what are the consequences of the innovation? The distinction of the three components of information, utterance, and understanding is not new. A similar distinction is to be found in the work of Karl Bühler (1934) with respect to the different functions of linguistic communication. Thinkers like Austin (1962) and Searle (1969) have developed this distinction into a theory of act types

and speech acts. And Jürgen Habermas (1979) has added to this a typology of validity claims that are implicit in the communication. All this begins, however, from an understanding of communication in terms of action and thus views the process of communication as a successful or unsuccessful *transmission* of messages, information, or understanding expectations. However, in a systems-theoretic approach it is the very *emergence of communication* that is emphasized. Nothing is transmitted. Redundancy is created in the sense that the communication creates a memory that can be called on by many persons in quite different ways. When A announces something to B, further communication can be directed to either A or B. The system pulsates as it were with a constant creation of overflow and selection. When writing and printing were invented this process of systems formation was enormously increased with consequences for social structure, semantics, indeed for language itself, that only gradually entered the purview of research.

Thus the three components of information, utterance, and understanding must not be interpreted as functions, acts, or horizons of validity claims, although one may admit that these are possible ways of applying them. There are no building blocks of communication that exist independently and only need to be assembled by someone (a subject, perhaps?). Instead it is a matter of different selections whose selectivity and selective domain are constituted by the communication itself. There is no information outside of communication, no utterance outside of communication, no

understanding outside of communication—and not simply in the causal sense for which information is the cause of the utterance and the utterance the cause of the understanding, but rather in the circular sense of reciprocal presupposition.

A communication system is therefore a completely closed system that creates the components out of which it arises through communication itself. In this sense a communication system is an autopoietic system that (re)produces everything that functions as a unity for the system through the system itself. Of course, this can occur only in an environment and depending on environmental restrictions.

Formulated more concretely, this means that the communication system itself specifies not only its elements— whatever the ultimate units of communication are—but also its structures. What is not communicated cannot contribute anything to it. Only communication can influence communication. Only communication can break down the units of communication (e.g., analyze the selective horizon of information or seek the reasons for an utterance). And only communication can control and repair communication. As can readily be seen, the practice of carrying out such reflexive operations is extraordinarily demanding and is restricted by the characteristics of the autopoiesis of communication. There is a limit to the exactness that can be attained. Sooner or later, and usually sooner, the bounds of communication are reached, or patience— that is, the burden that the psychical environment can accept—is exhausted. Or finally an interest in other themes or partners supervenes.

IV

The argument of the circular, auto-poietic closure of the system is not easy to accept. Some conceptual experimentation is required before its advantages can be seen. The same is true of a second argument closely related to it. Communication has no goal or end, no immanent entelechy. It occurs or it does not—that is all that can be said about it. In this way the theory of autopoiesis is not in the spirit of Aristotle but rather of Spinoza.

Of course, goal-directed episodes can be formed within the communication system insofar as autopoiesis functions, just as consciousness can establish episodic goals without making goal positing the goal of the system. Any other interpretation would have to justify why the system continues after it has attained its goal. Or one would have to say, and not for the first time, that death is the goal or end of life.

In many cases it is implicitly assumed that communication aims at consensus, seeks agreement. The theory of the rationality of communicative action developed by Habermas (1979) is built on this premise. But in fact it is empirically false. Communication can be used to indicate dissent. Strife can be sought. And there is no reason to suppose that the seeking of consensus is any more rational than the seeking of dissent. This depends entirely on the themes of communication and the partners. Of course, communication is impossible without some consensus. But it is equally impossible devoid of all dissent. What it necessarily presupposes is that the question of consensus or dissent can be left aside concerning those themes

that are momentarily not topical. And even in the case of actual themes— even when one finally finds a parking spot and after a long walk arrives at the cafe where reputedly the best coffee in Rome can be found and enjoys one's drink—where is the consensus or dissent, as long as the enjoyment is not spoiled by communication?

Systems theory replaces the consensus-directed entelechy with another argument: Communication leads to a decision whether the uttered and understood information is to be accepted or rejected. A message is believed or not. This is the first alternative created by communication and with it the risk of rejection. It forces a decision to be made that would not have occurred without the communication. In this respect all communication involves risk. This risk is a very important morphogenetic factor because it leads to the establishment of institutions that guarantee acceptability even in the case of improbable communications. But, on the other hand, it can also—and this seems to me to be the case for Far Eastern cultures—increase sensibility. Communication with a likelihood of rejection is avoided or one tries to fulfill wishes before they are uttered. And it is precisely in this way that one can indicate restrictions. Communication continues as long as it does not encounter contradiction or is not disturbed by an indication of acceptance or rejection.

In other words—to repeat an oft-made important point—communication bifurcates reality. It creates two versions—a yes version and a no version—and thereby forces selection. And it is precisely in the fact that something must happen (even if this is an

explicitly communicated break-off of communication) that the autopoiesis of the system resides, guaranteeing for itself its own continuability.

Focusing on the alternative of acceptance or rejection is therefore nothing more than the autopoiesis of communication itself. It identifies the position of connection for the next communication that can now either build on an already attained consensus or seek dissent. Or it can attempt to conceal the problem and avoid it in the future. Nothing that can be communicated escapes this hard and fixed bifurcation — with one exception: the world (understood in the phenomenological sense) as the ultimate horizon in which everything occurs but cannot itself be qualified positively or negatively, accepted or rejected, and is coproduced in all meaningful communication as the condition of accessibility of further communication.

V

Now let me test this general theoretical approach on a particular question. Through the efforts of Neo-Kantianism and Jürgen Habermas we have become accustomed to suspect the presence of validity claims at this point and are encouraged to test them. The truth of the matter is both simpler and at the same time more complicated.

What is empirically observable is, first of all, that values are involved in communication by implication. They are assumed, hinted at. For example, no one directly says, "I am for peace. I value my health." This is avoided for well-known reasons: It would bifurcate into the possibilities of acceptance and rejection, which is exactly what is unnecessary in the case of values—or so one thinks, in any event.

Values hold through the assumption of their validity. Anyone who communicates in this way enjoys a kind of value bonus. For then it is the burden of the other to say if he or she is not in agreement. One operates, as it were, under the aegis of the beauty and goodness of values, and profits from the fact that anyone who wants to protest must assume the burden of complexity. He/she assumes the onus of argumentation. He/she runs the risk of having to think innovatively and of being isolated. And since it is always the case that more values are implied than can be thematized in the next move, selection, rejection, and modification are an almost hopeless undertaking. Therefore—instead of values—preferences, interests, prescriptions, and programs are discussed. None of this means that there exists a system of values or that value orders are structured transitively or hierarchically. Nor does it mean, and this is important, that values are a matter of psychologically stable structures. On the contrary, values seem to lead an extraordinarily labile psychological existence. They are used on one occasion and not on another without being supported by a psychological deep structure. Their stability is, as I would like to formulate it provocatively, an exclusively communicative artifact. And the autopoietic system of consciousness deals with them as it pleases. It is precisely because structures of the autopoiesis of the social system operate in this case that the semantics of values is appropriate to use in the presentation of the foundations of a social system. Their stability rests on a recursive assumption and testing of the semantics with which this functions at any time. The *basis of validity*

is recursiveness, reinforced by the communicative disadvantage of contradiction.

Whatever else consciousness thinks is an entirely different mater. In due time it will come to recognize that value consensus is as unavoidable as it is innocuous. For there is no self-execution of values. And everything that they seem to require can be allowed to slip by in the execution, of course in the name of values.

VI

Such a profound revision of the conceptual framework of communication systems will surely have consequences for the diagnosis and therapy of the states of systems that are viewed as pathological. The author does not claim any kind of competence in this area, above all that kind of automatic self-correction that arises from a familiarity with the milieu. Nevertheless, in a kind of summary fashion, I would like to illuminate several points that might serve as an occasion for reconstructing well-known phenomena.

First of all, this account emphasizes the difference between psychical and social systems. The former operate on the basis of consciousness, the latter on the basis of communication. Both are self-referentially closed systems that are limited to their own mode of autopoietic reproduction. A social system cannot think and a psychical system cannot communicate. There are, however, immense and highly complex causal interdependencies. Closure does not mean that no reciprocity exists or that such interconnections cannot be observed and described by an observer. It does require, however, that the initial situation of autopoietic closure enters into the description.

This means that one must take into account the fact that effects can arise only through the co-operation of the system experiencing them. And one must also remember that the systems are opaque to each another and therefore cannot reciprocally steer each other.

A consequence of this account is that consciousness contributes only noise, disturbance, or perturbation to communication and vice versa. In fact, if you observe a communication process you have to be familiar with the preceding communication, ultimately with its themes and what can be said meaningfully about them. As such, you do not have to have a knowledge of the conscious structures of the individuals.

But, of course, this point of departure needs refinement since communication systems very often thematize persons and since consciousness has become accustomed to prefer certain words, to tell certain stories and to identify itself, in part, with communication. Thus an observer can recognize highly structured interdependencies between psychical and social systems. Nevertheless, the psychical selectivity of communicative events in the experience of the participants is something completely different from the social selectivity. A mere consideration of what we ourselves say suffices to make us aware of how carefully we must select in order to be able to say what can be said, how much an emitted word is no longer what was thought and intended, how much one's own consciousness dances about the words like a will-o'-the-wisp, using and mocking them, meaning and not meaning them at the same time, letting them rise and fall, how it has

them on the tip of its tongue and des-
perately wants to say them and then
without any good reason does not do
so. Were we to try to observe our own
consciousness moving from thought to
thought we would indeed be fasci-
nated by language. But we would also
experience the noncommunicative,
purely internal use of linguistic sym-
bols and a genuine depth of conscious
actuality in the background, one on
which the words sail like little ships
connected one to another but without
itself being consciousness.

This superiority of consciousness
to communication (to which, of
course, a superiority of communica-
tion to consciousness corresponds in
the converse system reference) be-
comes completely clear when one real-
izes that consciousness is not only con-
cerned with words and vague word
and propositional ideas but also and
preeminently with perception and
with the imaginative depiction and ef-
facement of images. Even during
speaking, consciousness is incessantly
concerned with perceptions. In my
own case it often happens that in the
act of formulating I see the pictures of
the written words (a state of affairs
that has never, as far as I can see, been
noted by research into culture's trans-
position into the written form [Ver-
schriftlichung]). And the extent to
which one can be diverted from the ob-
servation of others by one's own talk-
ing, or still be able to process sense im-
pressions while attending to the train
of conversation, varies from person to
person.

All this makes it necessary to adapt
communication to this will-o'-the-wisp
of consciousness when we change the
system reference again to that of the
social system of communication. Of

course, this does not mean that com-
munication carries consciousness
along piece by piece. Instead, con-
sciousness—whatever else it may be
thinking—is maneuvered by communi-
cation into a situation of forced
choice. Or at least that is how it ap-
pears from the point of view of com-
munication. Communication can be
accepted or rejected in a way that is
communicatively understandable. And
naturally the range of themes can be
factored so that a decision is broken
down into several decisions. The auto-
poietic autonomy of consciousness, so
to say, is represented and compen-
sated in communication by binariza-
tion. A decision that can be handled in
communication takes the place of a
meaninglessly noisy environment of a
decision, for example, yes or no, fur-
ther inquiry, perhaps hesitation, de-
lay, doubt. In other words, communi-
cation can be disturbed by
consciousness and even foresees this;
but this always happens in ways that
can be connected with further commu-
nication and thus can be handled com-
municatively. In this way a confusion
of the autopoiesis of the systems is
avoided despite a high degree of coevo-
lution and reciprocal interaction.

I am well aware that this analysis
still does not suffice to describe what
we experience as a pathological state
of the system. In terms of this theory,
reciprocal noise, disturbance, pertur-
bation, and so on, are the normal case
for which a normal interception and
absorption capacity exists, psychically
as well as socially. Supposedly a sense
of the pathological occurs only when
certain thresholds of tolerance are
transcended. Or one could possibly
say, when the memory of the system is
brought into play and experiences of

disturbances are stored, combined, represented again, and amplified by the reinforcement of deviation and hypercorrection, and when an increased capacity for the same is called on. Be that as it may, from the theoretical position that I have attempted to outline, one would have to distinguish clearly between psychical and social pathologies and be especially careful if one wants to view either as the indicator or even the cause of the other.

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Critical Essay
A Critique of *No Sense of Place* and the Homogenization Theory of Joshua Meyrowitz

Robert Kubey

Joshua Meyrowitz's (1985) *No Sense of Place* remains one of the most insightful books yet written about the effects of the mass media. Drawing on Erving Goffman (1959) and Marshall McLuhan (1964), Meyrowitz argues that electronic media have substantially altered the traditional relationship between social roles and physical place.

The book has received a great deal of praise, as much as any about mass communication since McLuhan's *Understanding Media,* but there has been remarkably little critical or theoretical assessment, particularly given that its claims for the effects of the media are both ambitious and sweeping. Meyrowitz contends that his theory can help explain:

[T]he social explosions of the 1960s, the many "integration" movements (blacks, women, elderly, children, disabled, etc.), the rise of malpractice suits, the development of "halfway" houses for prisoners and the mentally ill, the decline of the nuclear family and the rise of the nuclear freeze movement, and the trends toward living alone and "living together." The theory suggests that a broad, seemingly chaotic spectrum of social change may be, in part, an orderly and comprehensible adjustment in behavior patterns to match the new social situations created by electronic media. (p. 9)