COMMUNICATION, LANGUAGE, AND THE EMERGENCE OF SOCIAL ORDERS

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ABSTRACT

Purpose – *This essay attempts to answer the question, ''What distinguishes inter-human influence from other forms of influence?''*

Design/methodology/approach – *Specifying the micro-foundations of social structures in terms of communicative inferences necessitates a revision of the concept of social structures (and institutions) as distributed, and hence, uncertain, structures of expectation. Institutional realities are generated in linguistic interaction through the indirect communication of generic references. The generalizing function of language – in particular, abstraction and memory – coupled with its reflexive function, to turn references into things, are sufficient to generate both social structures and institutions as collective inferences.*

Findings – *Social relations are fundamentally communicative relations. The communicative relation is triadic, implying an enunciator, an audience, and some referential content. Through linguistic communication, humans are capable of communicating locally with others about others nonlocally.*

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Institutions exist only as expectations concerning the expectations of others. These expectations, however, are not only in the mind, and they are not exclusively psychological entities. Linguistically, these expectations appear as the reported statement within the reporting statement, that is, they are constituted through indirect discourse.

Research limitations/implications – *An important implication for current sociological theory is that, from the point of view of a sociology defined as communication about communication from within communication, institutional realities should not be reified as existing naturalistically or objectively above or behind the communications through which they are instantiated.*

Originality value – *This approach, then, is decidedly anti-"realist." The goal of such research is to examine the inadequacy of nonreflexive models of social order. Accounts of how sets of social relationships emerge will remain inadequate if they do not reflect upon the cognitive and communicative processes which make possible the consideration of such structures.*

INTRODUCTION

This essay is attempts to answer the question, "What distinguishes inter-human influence from other forms of influence and physical causation (e.g. contagion)?" To answer this question, I examine several prevalent sociological models of communication and language as they relate to the emergence of human social orders and institutions. Specifically, I examine George H. Mead's account of institutions as arising from the capacity to form a notion of a "generalized other," Jürgen Habermas's reaction to and criticism of Mead's account, John R. Searle's account of collective intentionality as fundamental to institutions, the problems of social order and double contingency as explicated by Talcott Parsons and Niklas Luhmann, and the fundamental importance of language in explicating the emergence of institutions via inter-human communication.

The central claim of this essay can be summarized as follows: no indirect communication, no social institutions. I propose that one useful way of distinguishing human social relations from other sorts of relations, and thus one way of defining sociology's object of investigation, is to specify *social relations* as *communicative relations*. A communicative relation can be understood as a special type of causal power that entails the attribution (to others and to oneself) of communicative agency, the notion that by

communicating with others one can make some difference to the actions or behaviors of others. Conversely, the causal power of communication implies a corresponding susceptibility to communicative influence. Through linguistic communication, humans are capable of communicating locally *with* others *about* others nonlocally.[1] In other words, through referential communication, humans are capable of providing both first-person and third-person accounts of phenomena, including explanations of their own actions and the actions of others. The duality of structure and institution is always already implied by efforts to reduce uncertainty by inferring communication, but language is required to transform the latter from a psychic intuition into social reality or, at least, the communicated expectation of such a reality.

SOCIAL ORDERS AND INSTITUTIONS

An understanding of language is necessary to understand social systems because language, is, "essentially constitutive of institutional reality" (Searle, 1995, p. 59). When explaining the emergence of social orders at any level of analysis, sociology must pay attention to the connection between the observed social patterns of relationships ("orders") and the local communication processes by which they are engendered. Communication refers to a multifaceted process of human influence, which operates reflexively and recursively.

By *social order* I mean expected patterns of human relationships. *Social* orders are thus a subset of orders; they refer to the patterns or relationships that people (or more generically, "systems") express through communication and the observed patterns of relationships about which they communicate – successfully or unsuccessfully to others. I will be circumventing the more traditional sociological question and adopting the stance of a second-order observer in order to elucidate the linguistic basis of social orders. Instead of asking, "How are social orders possible?" I will ask instead "How is it possible that we can communicate about social orders?" I propose that the answer to the latter question will provide the key to resolving the riddle of the former.

Social orders are engendered linguistically via *order-words*: implicit commands (i.e., "orders") that focus attention on perceived patterns of relationships (i.e., "orders") (Deleuze and Guattari, 1987). Social relationships are expressed or performed through the linguistic description of social relationships. I distinguish two types of social orderings (i.e., relationships),

in accordance with the literature: social structures and institutions. The difference between the two can be expressed as an analogy: social structures are to direct, immediate relationships as institutions are to indirect, mediated relationships.

Relationships, furthermore, can be distinguished from properties. In analytic philosophy, sentences (i.e., propositions) are generally regarded as fundamental units of meaning. If we delete a concrete particular (i.e., proper names such as John, Fido, Hurricane Katrina) or "quasi-object" (i.e., generic categories referring to a class of concrete particulars, such as person, dog, hurricane) from a sentence, what remains is a *propositional function* with a blank space or variable called an *argument*. A "property" can be defined in this manner as a "propositional function with precisely one argument position" (Carnap, 1967, p. 51). A "relation," in contrast, can be defined as a propositional function with two or more argument positions. Linguistically, then, the propositional function "*x* is a city in Germany" is a property, while "*x* is a city in *y*" is a relation. A *class* is the extension of a property, that is, a class refers to all of the objects that "satisfy" the given propositional function or set of such functions. A class can be distinguished from the extension of a relation, such as the ordered triplet of communicative relations, discussed below.

The communicative relation takes the form, *X communicates with Y about Z*. In this case, *X, Y,* and *Z* are arguments.[2] The resulting form of the communicative relation is necessarily triadic. The *Z* term can include X, Y, some other variable, or more interestingly, because of the recursive capacity of human language, Z can even include the relational form itself.

Let ***C*** mean the relation "communicates with" so that the propositional function above can be written as $x\boldsymbol{C}y(Z)$, where the *Z* in parentheses refers to the content of the communication. If we now let *A* refer to the expression $x\boldsymbol{C}y$, and *B*, *C* … refer also to the expression $x\boldsymbol{C}y$ but with potentially different values for *x* and *y* (i.e., *A, B, D,* etc., are all isomorphic), then indirect discourse takes the form $A(B(D\ldots\ (Z)))$. More specifically, indirect communication takes the form *I communicate to YOU that X communicated to Y that Z,* where $Z = P\boldsymbol{R}Q$, some relation **R,** that may or may not be communication, linking two arguments *P* and *Q*. In communication, this first-person proposition "*I communicate to YOU that Z*" is usually implied. This form integrates first-person and third-person accounts.

First, I will discuss in detail three accounts of social institutions: George H. Mead, John-Levi Martin, and John R. Searle. Second, I will address three accounts of how social orders are made possible by first solving the "problem" of "double contingency." Afterwards, I will address the link

between social structures and institutions, and argue that this distinction recapitulates a duality inherent to linguistic communication itself.

Mead and Habermas

G. H. Mead defines institutions as "common responses" made possible by (generalized) expectations of *generalized others*:

> Institutional reality not dependent on the individual actor arises from the fact that *A*, on the way to symbolically restructuring his action orientations and dispositions, forms an identity as a member of a social group. The *first step* along this path is marked by conceptions and dispositions for particularistic expectations that are 'clustered', that is to say, conditionally connected and complementarily related to one another. In a *second step*, these expectations are generalized and gain normative validity. These two steps correspond approximately to the stages Mead characterized as 'play' and 'game.' (1934, p. 33)

Mead goes on to describe the necessary relationship between institutions and the "generalized other":

> There are, then, whole series of such common responses in the community in which we live, and such responses are what we term 'institutions.' The institution represents a common response on the part of all members of the community to a particular situation … One appeals to the policeman for assistance, one expects the state's attorney to act, expects the courts and its various functionaries to carry out the process of the trial of the criminal. One does take the attitude of all these different officials as involved in the very maintenance of property; all of them as an organized process are in some sense found in our own natures. When we arouse such attitudes, we are taking the attitude of what I have terms a 'generalized other.' (1934, p. 38)

For Mead, taking the attitude of the other, however, ultimately rests upon the authority of the group. Jürgen Habermas (1985), in his *Theory of Communicative Action,* Vol. 2 (*TCA* II) objects to (his interpretation of) Mead's account of the normative genesis of institutional life, arising from the internalization of "imperativistic authority."

For G. H. Mead, language emerges through the internalization of gesture-mediated interaction, in which participants learn to *take the attitude of the other*, that is, to anticipate other's potential responses to their own actions, and thus learn the "meaning" (in functional, pragmatic terms) of their own behavior. A gesture can acquire a sufficiently similar meaning for both participants only on the condition that the gesture is at least potentially capable of eliciting the same response from both participants. Synonymy of meaning at this stage is tantamount to unanimity of response.

According to Jürgen Habermas (*TCA* II), demonstrating this transition requires no less than a demonstration of "how processes of reaching understanding *with* one another differ from exerting influence *upon* one another with a view to consequences" (1985, p. 10). Moreover, Habermas contends that the emergence of symbolic language not only constitutes the "self" of participants, it also changes the whole system, constituting a "higher-form of life" (1985, p. 10).

Habermas points out that Mead vacillates between two lines of thought. On the one hand, Mead understands *taking the attitude of the other* as resting upon "inhibited or relayed action": "the organism pauses and becomes aware of what it is doing when it arouses certain responses to its own gestures in another party" (1985, p. 11). This capacity, however, presupposes a "mode of reflection" that remains unexplained. On the other hand, Mead argues more consistently that a Darwinian survival advantage might accrue to those organisms or groups of organisms who learn to anticipate the responses of others to their "anchored reactions," and in addition to modify their actions accordingly.

Mead's account, however, is still insufficient to account for the emergence of signal language. An organism that responds to its own vocalizations in the same manner as the other to which it reacts implies only that both exhibit the same behavior from the perspective of a third-person observer. Similar behavioral responses, however, do not necessarily require their conscious recognition of this fact. Reacting to one's own gestures is distinct from addressing one's gestures to an interpreter (1985, p. 13). Behavioral responses in this latter sense are better characterized as *answers* constituted by an organism's internalization of yes/no responses. Internalized dialogue, however, in the form of a "yes" or "no" responses to imperatives or statements already requires symbolic language and "propositionally differentiated language," that is, behavioral expression is differentiated from informational content, the imperative mood becomes distinct from the indicative, and so on.

Habermas characterizes this linguistic development as one where the first organism responds toward the second as an addressee capable of interpreting the gesture and thus "produces its gesture with communicative intent" (1985, p. 13). Habermas specifies three necessary developments in the transformation of gesture mediated to symbolically mediated interaction:

1. Meanings have to be generalized (i.e., there is no private language; symbolic interaction is not mere coaction).

2. Interpersonal relation between speaker and hearer replaces the causal relation of stimulus and response.
3. Participants learn to "acts of reaching understanding" from "acts oriented to success" (1985, p. 9) (i.e., participants attain "modal differentiation," or in other words, they can distinguish between the behavioral expression or form of a communication and its information content; the functions of manipulation and information are distinguished; the imperative and indicative moods are differentiated).

The third stage entails participants "ascribing to the same gesture an *identical* meaning rather than merely undertaking interpretations that are objectively in agreement (p. 14). What, then, is required for there to arise symbols with *identical meanings* (i.e., collective reference)? For Habermas (like Searle), identical meanings require the capacity for ego to know "how alter *should* respond to a significant gesture; it is not sufficient to expect that alter *will* respond in a certain way" (p. 14). In other words, identical meanings require the adoption of a critical, normative attitude by communicative participants with respect to *rules* of the use of symbols (p. 15). Habermas contends that the violation of an expected response will produce an expression of disappointment which "reveals disappointment regarding a failed communication and not, say, the undesirable consequences of alter's actual course of action" (p. 14). It is, of course, doubtful that the meaning of disapproval can be generalized to all cases of its expression. It is clearly possible, for example, for someone to express disapproval in responses that upset expectations precisely because of the deleterious consequences. One may also consider the possibility of being unexpectedly surprised by one's responses. Nevertheless, there are cases in which Habermas's interpretation remains plausible, and it is therefore at least conceptually possible to distinguish disappointment arising from "not being understood" (e.g., think of ordering food in a foreign country) from disappointments in the likely consequences of behavioral responses.

Habermas argues that sameness of meaning (i.e., the emergence of symbolic, collective reference) entails following rules. Language is thereby accomplished by the enforcement of linguistic rules. Following Wittgenstein, Habermas argues that it is not possible for one to obey a rule privately, that is, without being open to the possibility of being criticized or corrected by others for failing to do so. Conversely, the possibility of criticizing or correcting the use of symbolic expressions by others presupposes (and elaborates) a rule that is violated. Habermas summarizes his thesis as follows: "sameness of meaning is based on the ability to follow

intersubjectively valid rules together with at least one other subject; both subjects must have a competence for rule-governed behavior as well as for critically judging such behavior'' (p. 18). It is this *normative* dimension of human language (which is also shared by Searle), which, according to Habermas, Mead overlooks in his analysis of *Self and Society* (1934). Habermas presumes that rules must be *consciously* followed.

For Habermas, rules (along with the mental and linguistic capacity to enforce and recognize rules) are a necessary precondition for *sameness of meaning*, or what I am calling ''collective reference.'' Following a rule entails in addition the capacity for *normative evaluations*, that is, an ability to criticize unexpected responses and to defend oneself against criticisms via normative justifications. The nonoccurrence of predicted behavior from alter becomes, under these circumstances, ''incorrect'' behavior with respect ego's expectations. In order for the behavioral responses of alter to be ''incorrect'' rather than merely unexpected, the behavior of alter must not be presumed to be fixed. In other words, as formulated by Niklas Luhmann (1995), ego must presume or infer the capacity of alter to *select* (consciously or unconsciously) from a range of possible behavioral responses. In this sense, a rudimentary form of ''double contingency'' arises in the sense that the behavioral stimuli and responses are both contingent, that is, selected from a range of possible behaviors. According to Luhmann, ''communication'' in the sociological sense only emerges once these responses along with their behavioral stimuli are ''understood'' as behavioral expressions of contingently selected messages (i.e., ''information'').

Consider the warning call of vervet monkeys. These vocalized gestures are collectively referential in the sense that they refer to some object in the vervet monkey's perceived environment, in this case a predator. The vocalizations are not only reliable stimuli capable of provoking in others a reliable and advantageous response in others. These calls also encode information about the particular type of predator observed. Even in this case, however, the fact that a predator of a particular type is observed is not distinguished from its appropriate, normative response. The cry of ''land predator!'' is at once communicating information that an eagle has been observed and a command to flee higher up into the trees. Even if the particular predator call must be learned and is not innate, the imperative command is not yet distinguished ether from its indicative, informational content or the emotional excitement of the utterer.

Language, that is, culture, can only become a mechanism of coordination and social steering once communication becomes ''modally'' differentiated so that any utterance can be contested or affirmed on the basis of its truth,

sincerity, or legitimacy (Habermas, 1985, p. 26). Communication thereby no longer resembles a mere relation of stimulus–response, but is potentially interrupted and called into question along each step in the chain of communicative utterances. Indexical signals (i.e., analogical communication or gestural communication) can be neither true nor false: laughing or shouting "help!" do not elicit the possibility of critical responses or an "objectivating attitude."

Martin: Institutions and Social Structures

Sociological inquiry since its classical inception has been concerned with the "reality" and "emergent powers" of social structures. John-Levi Martin (2001) has referred to this preoccupation as sociology's *substantive hunch*: the idea that "that social order exists on some level 'higher' than the individual" (p. 190). In *Social Structures* (2009), John-Levi Martin attempts to explain analytically the origin of large-scale, aggregated social structures. Martin proposes that social structures come from the crystallization of social relationships between individuals. Social structures are defined as "patterns of interaction that link persons to *particular* others, as opposed to classes of others" (p. 14). Social structures are not necessarily mutually acknowledged patterns, but rather, analytical constructs that may not be recognized by the agents that constitute them. Martin implies that social structures are ultimately observer-dependent patterns of concrete relationships

An institution appears, on the other hand, whenever, "instead of defining the situation in terms of our relationships with particular people, we define it in terms of relations with *types*" (2009, p. 340). *Institutions are generalizations and abstractions of social structures*. Institutions arise from a two-step process: first, "patterns of interaction recur with sufficient regularity among different sets of persons, that analysts can recognize formal characteristics that are independent of the individuals" and second, these become institutions whenever, "[i]nstead of simply noticing that there are recurrent patterns, we can make reference to these patterns as independent entities that make predictable demands on us" (2009, p. 3). Institutions are "transposable subjective rules" defining positions in relation to those "*with whom we do not interact*" (p. 340; my emphasis). Institutions are found whenever observed *relationships* between individuals are also socially recognizable *relations* between generic categories of social positions, or roles.

Martin distinguishes relationships from relations. Whereas relationships entail *mutually acknowledged* interaction between individuals, relations refer to any property of a dyad and do not imply interaction. A fan has a relation, but not a relationship, to a famous celebrity. Importantly, Martin argues that social structures are derived from *relationships* of interaction between concrete individuals, rather than from *relations* between types.

The difference between structures and institutions is captured by the distinction between the formal concepts of structural and general (aka "regular") equivalence. Two persons are structurally equivalent if they have identical ties to the *same* others (e.g., two employees of the same boss). *S*tructural equivalence only presupposes *relations* not relationships. Two persons are generally or regularly equivalent, however, if they have identical ties to the same *type* of other (e.g., two employees with different bosses). Institutions require general equivalence between different actors across multiple contexts and circumstances.

Martin moves analytically from small and simple to big and complex. He writes: "the larger structures tend to be the result of historical processes in which small structures were progressively aggregated" (p. 15). Martin argues that social structures entail the concatenation of relationships, where concatenation is one form of aggregation in which two or more relationships are shared by at least one person (p. 11). Essentially, the "content" of relationships *within* a dyad is understood to correlate with the probability that similar relationships *between* dyads will emerge. The kind of relationships between alter and ego has some influence on the probability that others tied (attached) to ego will become tied (attached) to alter and vice versa. Social structures, however, can only aggregate if there are already extant relationships potentially or indirectly relating everyone else not yet related. Thus, Martin presupposes a degree of unstructured, amorphous contact between already established relationships, which raises a number of questions: Who or what is being aggregated? By what method do we analytically (e.g., as in a multiagent model) bring persons into contact with one another, in what order, and so on?

With respect to institutions, Martin's theoretical exercise presumes that institutions (i.e., a global understanding of participants who are not necessarily in *relationships* with one another, but who may be nevertheless *related*) are not already present. In Martin's model, the aggregate structure emerges unintentionally from local interactions. Such structures can only be seen by super-observers *ex post*. The question is then, what prevents participants from exercising their powers of super-observation from the beginning? In my view, whether or not institutions arise depends not on the

(extant) relationships between individuals *in the present*, but on media of communication to codify and shape ("structurate") their expectations (i.e., to amplify the certainty of ego's expectations of alter's expectations of ego, and vice versa). Social institutions arise from the capacity of participant-observers to gain distance from their own relations, thereby hypostasizing them, and successfully communicating these expectations in mutually accessible codifications. Institutions are irreducible to observed social structures just as a selected expression is irreducible to the context of selection from which it derives its meaning.

Searle: Institutions as Collective Intentions

John R. Searle defines an *institution* as "a system of constitutive rules, and such a system automatically creates the possibility of institutional facts" ((2010, p. 10). Constitutive rules "create the possibility of the very behavior that they regulate" and take the form "X counts as Y in Context C" (2010, p. 10). Constitutive rules differ from regulative rules which regulate an already existing activity. For example, the rules of chess are constitutive rules, whereas the rules of traffic (e.g., driving on the right-hand or left-hand side of the road) and table manners are regulative rules. Searle contends that *SF Declarations* always take the form of *constitutive rules*, making something the case by representing it as existing *to others* – or in other words, by virtue of the fact that others recognize or accept that the token-symbol means what it means or possesses the function it symbolizes.

According to Searle, "*all of human institutional reality is created and maintained in existence by … SF* [Status Function] *Declarations*" (2010, p. 13). *Declaration*s are a performative type of speech act that brings about a state of affairs by representing it as existing, and a *status function* is a function that "a person or other entity has, not [solely] in virtue of its physical structure … but in virtue of collective imposition and recognition of a status" (2010, p. 59). Individual status functions are possible, but Searle is concerned only with status functions which are collectively recognized. All *status functions* are *institutional facts*. The two terms are synonymous. However, not all status functions are created by explicit declarations. Importantly, for collective status functions to work, according to Searle, "there must be collective *acceptance* or *recognition* of the object or person have that status" (2010, p. 8). Searle emphasizes in his more recent work that "'recognition' does not imply 'approval'" (2010, p. 8).

Searle succinctly defines a "function" as "*a cause that serves a purpose*" (2010, p. 59). All notions of purpose are what Searle called *intentionality-relative* (2010, p. 43).[3] Thus, the function of a hammer is to pound nails, relative to a human who uses it for this purpose. The biological concept of function, as reflected in statements such as "the function of the heart is to pump blood," are also intentionality-relative, but this is more difficult to see because we assign this function to the heart on the implicit presumption that whatever contributes to life is valuable. Searle calls these "natural" cases of function, where purposes are not ascribed to objects to serve practical purposes, *nonagentive functions,* as opposed to *agentive functions,* where objects are used by intentional subjects (human or animal) for some purposes (e.g., a bonobo ape using a stick as a fish for termites). Not all collectively assigned agentive functions, however, count as *status functions*. A hammer, for instance, does not count as an institutional fact. Searle describes status functions as *noncausal* agentive functions because the function assigned to an object is unrelated to the objects physical structure. Although the word "status" is not explicitly defined, Searle seems to suggest that it is roughly coextensive with the term symbol: "Within the category of agentive functions is a special category of those entities [i.e. status functions] whose agentive function is to *symbolize, represent, stand for,* or – in general – to *mean* something or other" (1995, p. 23). In the sociological tradition, this insight has been long appreciated, particularly by symbolic interactionists such as George H. Mead and Charles Horton Cooley. The famous theorem of sociologist W. I. Thomas, known as the "Thomas Theorem," succinctly summarizes the argument thus far: "If men define their situations a real, they are real in their consequences" (cf., Merton, 1995).

It follows then, that, institutional facts consist of *tokens* (whether physical objects, persons, or nonmaterial indicators) symbolizing certain purposes (i.e., "representing" certain "conditions of satisfaction") that exist by virtue of their being recognized as existing. Institutional facts, then, are akin to a shared lexicon. Repeatedly, Searle acknowledges that the *status function* exists because it is represented as existing. The kinds of status functions that Searle has in mind, however, are unique in that *what* they represent (i.e., the function they serve) are social *relationships*. In this sense, status functions (recursively) codify expectations concerning the "rules" of interpersonal behavior.

Thus far, Searle has defined institutional facts as collectively assigned (i.e., collective recognized) *status functions*. Accordingly, Searle concludes that "*[L]anguage is essentially constitutive of institutional reality*" (1995, p. 59). That language is a necessary precondition for things like money, property,

religion, and culture, however, may not come as a surprise to many. What, exactly, does this explain? Is the capacity to treat something as something else the *explanandum or explanans*? On one side, Searle invokes the concept of *collective intentionality* in order to explain language and hence, institutional reality. On the other side, Searle explains human cooperation on the basis of language (i.e., the collective assignment of status functions). We can clarify the linear progression of the argument as follows: collective intentionality → collective *SF Declarations* (= *institutional facts, "language"*) → cooperation (and, to some extent, institutions). On the other hand, it is clear from Searle's exposition that the direction of causality goes in the reverse direction: language must be presupposed in order for collective intentionality to emerge.

SF Declarations, moreover, do not have to be repeated in order that they may be used. One does not need to declare oneself or recognize the declaration of another that the twenty-dollar bill represents "money." Searle therefore distinguishes between the constitutive rule and its application in particular instances. The former, which he calls *standing declarations*, are presupposed, and provide the scaffolding for the formation of additional constitutive rules.

Searle contends that institutions like money, property, and marriage require a *collective recognition* by the participants to sustain their existence. Full cooperation is not required. To believe that "there is a mutual acceptance on the part of others" (2010, p. 58) is sufficient to generate an institution. In other words, institutions may emerge even when they are not *personally* desired or expected or regarded as real. So, for example, it is not necessary that one personally regards money as valuable for it to become valuable, so long as one expects that others expect that others expect that others expect (ad infinitum) money to be accepted as a medium of exchange. Searle, however, does not abandon cooperation all altogether, for he also asserts that "particular acts within the institution" *does* require cooperation, as when buying and selling or getting married.

It remains to be seen, however, exactly what the link is between a shared, conventional system of symbolic reference (i.e., a system of collectively recognized *status functions*), on the one hand, and his notion of collective intentionality, on the other hand. Collective intentionality refers to the first-person plural form of intentionality, as reflected in statements such as "*We* are going for a walk." Searle argues that "collective intentionality is a biologically primitive phenomenon" (1995, p. 24): we-intentionality cannot be reduced to I-intentionality. The notion of collective intentionality is ultimately a way of describing cooperative behaviors, where "cooperation"

means symbolically mediated interactions in which people act collectively in some way toward a shared goal. There are an innumerable number of possible goals and interactions, from armed robbery to taking a walk together (cf., Gilbert, 1990). Hence, "cooperative" does not rule out cooperation motivated by coercion and does not imply equivalence of power and influence.

Searle asserts that "collective intentionality is the basis of all society, human or animal" (2005, p. 6). According to Searle, collective intentionality requires more than having shared knowledge or the same goals. For example, two people can have the same goal to help the environment, and they can even know that the other person has the same goal, but this common knowledge is insufficient to describe the cooperative behavior Searle is designating with the term "collective intentionality."

Ontology–Epistemology and Objectivity–Subjectivity

Human institutions are unique, Searle argues, for being both ontologically subjective (i.e., they would not exist apart from "our" believing them to exist) and epistemologically objective (i.e., they would still exist even if, *as individuals*, we did not believe in or desire their existence. Institutions do exist outside of our *individual consciousness* in the same way that other humans and other minds exist apart from our own. Searle's claim that human institutions are ontologically subjective therefore implies that the term "ontologically subjective" is not relative to the experience of "*a* conscious subject" but rather to the experiences of *all* (or at least many) of the conscious subjects who come in contact with the institution in some way. What seems to be relevant, in other words, is the independence or dependence of the collective, rather than the individual. Institutions are regarded as *collective intentions*, for they could not "exist" (in the sense of being recalcitrant against one's efforts or wishes) apart from the "intentions" of many. I contend that institutional, social reality is better understood as ontologically objective (as physical medium) and epistemologically subjective (as meaning or "information"), as opposed to ontologically subjective and epistemologically objective, as Searle proposes.

Searle defines epistemically objective statements as "those that can be established as true or false independently of the feelings and attitudes of the makers and interpreters of the statement" (2005, p. 4). Epistemic subjectivity and objectivity "are features of claims" (2005, p. 4), whereas ontological subjectivity and objectivity are features of the world and roughly correspond to intentionality dependence and intentionality independence, respectively. Some things in the world, like mountains and galaxies, are said

to exist independently of our experience of them, and are thus ontologically objective.

The features of the universe which are ontologically objective "do not need to be experienced by a conscious subject in order to exist" (2005, p. 4). All mental events are for Searle ontologically subjective. However, other people certainly exist outside of our own *individual* minds. The question then arises: Are other conscious subjects ontologically objective or subjective? Subjective or objective *relative to what?*

If questions of subjectivity and objectivity are "features of claims," however, then presumably an object that is not a claim could be neither true nor false, in the same way that an injunctive such as "stop!" can be regarded as neither true nor false (or the property of "happiness" as either circular or triangular). It follows, then, that institutions as such, have no epistemological properties. *That* institutions exist (or not) is, accordingly, an *ontological* issue. Statements *about* institutions (or *about* other statements, or thoughts *about* other thoughts), however, can be held to be true or false, but we cannot in this case secure in advance our knowledge of the truth or falsity of the statements. It is necessary, furthermore, to examine the role that indirect speech and second-order anticipations of people's beliefs about what people believe other people believe, and so on.[4]

Cross-tabulating these two dimensions, ontology–epistemology and subjective–objective, yields four possibilities, as depicted in Table 1. Searle does not acknowledge the possibility of no. 2, namely, phenomena which are *ontologically objective* yet *epistemologically subjective*. Given that epistemological subjectivity and objectivity are features of *statements*, we can infer that these would be indicative propositions which exist independently of some individual or group of conscious observing subjects, that is, which are ontologically objective, but about which they are uncertain. Interpreting ancient religious texts is a prime example. I will argue that communication itself is such a phenomenon: it is ontologically objective (as physical

Table 1. Cross-Tabulation of Ontological and Epistemological Possibilities.

		Epistemologically	
		Objective	Subjective
Ontologically	Objective	*1*	*2* (ignored)
	Subjective	*3*	*4*

medium) but epistemologically subjective (as meaning or "information"). Furthermore, I will argue that human, institutional reality is better understood as ontologically objective and epistemologically subjective, as opposed to ontologically subjective and epistemologically objective, as Searle proposes.

There is yet another sense in which the attribute of ontological subjectivity when applied to institutions may be misleading, namely, the question of whether (or to what extent) institutions in the past are subjective or objective to conscious subjects in the present. It is clear that the distinction of between ontological subjectivity and ontological objectivity is not coterminous with the distinction between the social and the natural, respectively, as Searle seems to think. Searle neglects the dimension of time. This is evident in Searle's notion of unconscious intentionality.

Searle defines "intentionality" as a "feature of representations by which they are about something or directed at something (fn 7). Intentionality in this sense refers to the "aboutness" or "directedness" of mental events and not specifically to "intention" (e.g., wishes, desires, or hopes).[5] Indeed, intentionality has often been cited as distinguishing feature of consciousness: unlike physical events, mental events are always "about" something other than themselves.[6] In *The Construction of Social Reality* (1995), Searle argues that "intentionality" is not coextensive with consciousness:

> Not all consciousness is intentional, and not all intentionality is conscious. There, for example, forms of consciousness such as undirected anxiety that do not represent anything; and there are forms of unconscious intentionality, such as my belief, even when I am not thinking about it, that Bill Clinton is president. (1995, p. 7)

Searle's distinction between consciousness and intentionality is confusing on two accounts. First, although anxiety as a feeling is, by definition, undirected, one can certainly take notice of one's own anxiety. Were it not for a mind's intentional stance toward anxiety, the latter could not be consciously perceived at all. More precisely formulated, anxiety pertains to mental and physiological processes operating outside of one's consciousness awareness, that is, in the *cognitive* unconscious. Second, the beliefs and thoughts of a person cannot exhibit the property of intentionality until and unless they are believed and thought. To suggest otherwise is to reduce intentionality to the concept of potentiality or tendency, which would rob the concept of any requisite specificity.

Those thoughts (facts, beliefs, etc.) *about* the world can only attain phenomenal existence (i.e., can only be experienced) if attended to intentionally, that is, consciously. I will refer to those thoughts *to* which a

mind is not currently attending in the present moment but could be as the *preconscious*.[7] The concept of the preconscious is a mere place holder, a category referring to thoughts that a mind may possibly have in the future, but which are not experienced in the present, that is, all of those memories (facts, thoughts, etc.) that might be remembered.

Searle confuses (i) adopting the intentional stance toward a memory (in the past) from (ii) remembering in itself (in the present), that is, he fails to distinguish the experience of consciousness from the objects of that conscious experience. The latter certainly do not possess the property of "intentionality" any more than my thought of airplanes possesses the property of flight. (Intentionality presupposes, of course, both this distinction and the inseparability of its two sides.) My argument is simply that the concept of "consciousness" should not be broadened to include those objects of consciousness, such as the *concept* of the preconscious or even "consciousness" itself. The confusion arises, I believe, because consciousness exhibits the recursive capacity of self-reference. Consequently, mental terms like ""thoughts" and "beliefs" and "knowledge" can designate both the experience of thinking, believing, knowing, etc., and the object of thinking, believing, knowing, etc. Objects of belief, such as the current president of the United States, therefore do not possess the property of intentionality, since they are themselves the objects of that intentionality. There are therefore no "unconscious forms of intentionality." Insofar as they exist preconsciously, preconscious thoughts are not intentional, and insofar as they are intentional, they are no longer preconscious.

Collective Intentions and Social Power

What are the mechanisms or processes by which the collective recognition of status functions is created and preserved? Searle is not content to describe the emergence of collective recognition. Instead, he insists that collectively shared statuses are achieved by way of *Declarations*. Likewise, institutions are ostensibly systems of (usually implicit) constitutive "rules" which make possible institutional facts. But why account for these "facts" in terms of "rules"? Are implicit or explicit *Declarations* necessary for the establishment of these rules? Could we account for the existence of a shared lexicon of status functions, in other words, without invoking something like *collective intentionality*?

Furthermore, in what does collective recognition consist? If institutional facts require collective acceptance or recognition, then what, exactly, is accepted or recognized? Is it necessary that people accept or recognize an explicit formulation of constitutive rules of the form "X counts as Y in

Context C?'' And if not, on what basis do we infer that there are such rules? How do we distinguish between, what Searle (1995) refers to as, ''rule-*governed*'' and ''rule-*described*'' behaviors? How do we decide whether and when people are genuinely obeying constitutive rules of the form ''X counts as Y in context C,'' and when they are instead, merely behaving *as if* they were following such rules? In other words, how do we determine whether such rules exist ''out there'' in the minds of individuals, or whether positing such rules is superfluous?

Searle acknowledges that constitutive rules of the sort that create institutional facts need not take the explicit form of ''X counts as Y in Context C''; need not be consciously understood as a constitutive rule; and need not be repeatedly declared in order to be effective. So-called *standing declarations* rely on the *network* (of other intentional states to which any given intentional state refers) and the *background* (of capacities and skills that enable one to perform one's various intentional states). The problem is that Searle must demonstrate that institutional facts like money cannot be derived *solely* from the background and network if he is to successfully maintain the necessity of collective intentionality to social life.

Turner (2002) argues that the concept of collective intentionality requires an explicit collective intention. Otherwise, whatever the concept of collective intentionality is supposed to explain will be explained equally well by background capacities, habituation, and the network of other I-intentional states. A *Standing Declaration*, for instance, presupposes that some *Declaration* was made in the past and continues to be operative in the present by means other than explicit collective intention. *Standing Declarations* possess an inertial causal force. A *SF Declaration* must be originally or initially produced by means of collective intentionality, and moreover, a collective intention that is *explicitly represented*, as the rules of chess or football are when first learning how to play. Without this explicit representation in the minds of cooperating individuals, the very notion of we-intentionality becomes superfluous. Searle, after rejecting the notion social regularities can be explained by the internalization of deep, unconscious rules, invoked the notion of collective intentionality as a functional substitute for the former. Having also rejected the (equally absurd) idea that social life requires that people must always consciously recognize or accept the contents of such intentions, Searle invokes the notions of the background and the network. Turner points out, however, that these two concepts end up explaining away collective intentionality itself.

According to Searle, collective intentionality is ultimately the only explanation possible for the normative component of collective acceptance.

Normative here refers to the fact that people can distinguish right and wrong, legitimate from illegitimate, appropriate from inappropriate uses of language and behaviors. Searle argues that we have to distinguish between *dispositions to behave*, on the one hand, from *recognitions of obligation*, on the other hand. It is true that something explicit is required in order to explain this normative, evaluative character of social life, but Turner insists that this does not necessitate collective intentionality. Instead, the difference between *habitual behavior* and *following a rule* (i.e., normative behavior) can be explained by explicit training:

> following a rule requires training, in which a trainer tells the trainee whether the trainee is right or wrong, the trainee habitualizes her responses, and also is able to habitually distinguish right from wrong. The trainer has to have beliefs, in a minimal sense of the word, that something does or does not count as something else. So, once trained, does the trainee: minimally, she needs to be able to respond to the words and thus to distinguish a correct response from an incorrect one. But there is nothing 'collective' that happens in this process of training. There are, rather, explicit sayings together with patterns of behavior that are the subject of sayings about whether something does or does not conform to the rule, or 'count as.' There have to be explicit sayings, because the act of training requires that something is explicitly articulated. (2002, p. 52)

Consequently, Turner concludes that ''Collective intentionality is either superfluous or the incidental by-product of common belief'' (2002, p. 54).

In his most recent work, Searle appears to concede the point. Turner's argument concerned the necessity of explicit acceptance. Searle acknowledges that status functions need not be collectively *accepted* in order to work. They only need to be collectively *recognized*. Still, it can be argued that even this minimal form of *collective recognition* is superfluous, depending on how one construes ''recognition.'' More importantly, Searle has concluded that collective intentionality is required only in ongoing intentional acts of cooperation: ''collective recognition need not be a form of cooperation and thus does not require a collective intention to cooperate'' (Searle, 2010, p. 58); ''In collective intentionality I have to presuppose that others are cooperating with me'' (2010, p. 53). Searle continues: ''This is an important point, because it shows that there are some forms of collective intentionality which are *reducible to* I-intentionality plus mutual belief'' (2010, p. 58; my emphasis).

This would seem to circumvent some of the criticisms made against Searle, particularly his account of money as a collectively assigned status function. Tieffenbach (2010) argues, for instance, that Carl Menger provides an equally cogent and plausible ''rational reconstruction'' of the origin of money which does not rely on collective intentionality at all. According to

Menger's account, money as medium of exchange could arise on its own (i.e., self-organize) from a self-reinforcing mechanism: "the more a given good is chosen as an intermediate good, the more its saleability increases, and the more it will henceforth be chosen as an intermediate good" (2010, p. 200). Searle could respond that the ability to communicate ideas about the rules or expectations of barter, trade, and property presupposes language, the preeminent and foundational institution. Nevertheless, alternative accounts of institutional origins do weaken the explanatory significance of Searle's central notion of collective intentionality. If collective intentionality is only required during cooperative engagements, how much of institutional reality does collective intentionality explain? Given that cooperative games involving "constitutive rules" like chess and football require collective intentionality, can more complex institutional facts like money, property, marriage, religion, and so on be explained in the same terms?

Searle discusses the "normative" element of social behavior in terms of *deontic powers* – that is, rights, duties, obligations, permissions, and so forth. Such (normative) powers, Searle argues, are the ultimate source of institutional reality: "This basic move underlies all of institutional reality.... [U]tterances can create desire-independent reasons for action if the status functions that they attempt to create are recognized by other members of the community" (2010, p. 86). To have a motive for acting that is independent of one's desires is, according to Searle, to have an *obligation*. And what is the source of these obligations or (as Habermas would say), of these "normatively binding" relations? Searle contends that, because speech acts are "above all, public performances," (2010, p. 83) "all types of speech acts contain an element of commitment" (2010, p. 83).

A commitment is an irreversible obligation. Importantly, Searle contends that the element of commitment is intrinsic or internal to the speech acts itself. One cannot communicate without committing oneself to the communication. Speech acts imply a stronger commitment than the commitment entailed in private thoughts, because only by the former can someone be held publicly accountable. Searle proclaims that "once you have language, it is inevitable that you will have deontology because there is no way you can make explicit speech acts performed according to the conventions of a language without creating commitments" (2010, p. 82).

Here, Searle's argument is rather tenuous if not untenable. Searle *defines* "commitment" as an "irreversible obligation" and then *defines* "obligation" as a motive for acting independent of one's inclinations (2010, p. 96). But this restricted notion of commitment, which is inherent to communication itself, is far too weak to account for the kinds of deontic powers

characterizing actual social life. The communicative commitment that Searle has in mind is the minimal commitment to the validity (e.g., truth, sincerity, or normative rightness) of one's statements in the face of potential criticism.[8] This commitment, inherent to communication utilizing conventional symbols, presupposes the ability to "adopt the attitude of the other" (Mead, 1934) so that criticisms can be defended with reasons and justifications (cf., Boltanski & Thévenot, 2006).

This notion of linguistic or communicative "commitment," however, does not at all seem to account for the establishment of deontic powers of social significance. A commitment to the truth of the sentence "It is sunny today" seems to have nothing in common with the commitment to pay one's taxes or to pay one's debts, for example. Certainly the sorts of minimal commitments internal to all speech acts may turn out to be necessary to the establishment of a standardized lexicon of token symbols, but it is certainly not sufficient to account for any of the symbolically mediated power relationships that seem to matter most, that is, those pertaining to money, politics, family, work, and so on.

Searle, like Habermas (1985), locates a normatively binding force inherent to language and communication. Human relationships, mediated symbolically in communication, entail some minimal commitments, that is, irreversible obligations, of the speaker. Is the minimal commitment inherent to communication, however, sufficient to generate a collective recognition of status functions? Furthermore, does the collective recognition of status functions entail the creation of obligations (i.e., motivations independent of one's desires)? A status function is a collectively acknowledged symbol conferring rights and obligations (e.g., credits and debts). Deontology is ultimately about *power*. Searle's implicit theory of social power can be translated as follows: symbols of power (i.e., status functions) confer relationships of power (i.e., deontic rights and obligations) whenever they are collectively accepted.

What, then, motivates their acceptance? What makes the *SF Declarations* binding? Moreover, if obligations are desire-independent reasons for acting, how much of what people do can be explained on these grounds? The actual power of such a commitment would seem quite small, considering that the commitment to truth, ostensibly inherent to representational statements, is not strong enough to prevent deceit and deception. On the other hand, if such a power was too strong, the commitment would cease to be a commitment at all, since there would be no possibility of not having been fulfilled. Furthermore, an obligation is a commitment, a type of social tie to another. On what basis do we regard these social ties as existing

independently of our inclinations, desires, and/or interests? Would I not communicate if it were not my inclination to do so? Are they necessarily independent? What compels a serf or a slave to accept the deontic conditions of his or her serfdom or slavery? The point is that anticipations of sanctions, whether positive or negative, are motivations to comply with deontic commitments, and these motivations *do* inform and *are informed by* one's preexisting inclinations and intentional states. And if the ground of this commitment is the anticipation of potentially being held publically accountable, would not the seriousness of the commitment then vary and depend upon the circumstances and expectations of the likely response?

Such questions expose the limits of Searlean social ontology, where *the attribution of* power remains conspicuously absent. Although Searle acknowledges that institutional facts require only collective recognition (rather than acceptance), the causes and motives of this recognition remains unexplained. Recognition is merely a weaker version of acceptance, without replacing any of the latter's implicit connotations. Recognition is still a choice, albeit possibly a grudging one, a choice grounded not in selfishness or personal gain, but in reasons independent of individual motives. The cause of the recognition of power-conferring status symbols would then seem to reside in the obligation to recognize the status symbol as "real," an obligation ultimately conferred by the status symbol itself. Searle's concept of collective intentionality does not account for *which* persons and symbols are attributed with power, nor does it specify the generating mechanisms that induce *compliance* to specific collective intentions, that is, specific "definitions of the situation."

ORDER AND CONTINGENCY

Parsons' Solution: Culture

One of the most discussed accounts of the process through which social structures (but not necessarily institutions) emerge concerns the concept of "double contingency," as introduced by Talcott Parsons. Parsons adopts an analytical strategy to tackle this problem, a (poorly defined) thought experiment of sorts, referred to as "the problem of double contingency." Double contingency refers to the mutual uncertainty, in-transparency, and consequent unpredictability of behavior experienced by two actors encountering one another for the first time. Whereas a single contingency occurs whenever one event is dependent, that is contingent, upon another, a

double contingency occurs when two events are each contingent upon the other (e.g., both ego and alter think to themselves, "I want what you want, and you want what I want.") Each actor is uncertain of both herself and alter: ego decides to act and respond on the basis of how ego perceives alter will perceive those actions and responses, and vice versa. The first and second contingencies can also be understood as the problem of anticipating the manifest behavior and latent mental life of alter, respectively (cf., Leydesdorff, 2010).

As Parsons puts it: "Part of ego's expectations, in many cases the most crucial part, consists in the probable *re*action of alter to ego's possible action, a reaction which comes to be anticipated in advance and thus to affect ego's own choices" (1951, p. 5). For Parsons, the problem of double contingency cannot be solved locally (i.e., dyadically). Parsons acknowledges that, "A dyad always presupposes a culture shared in a wider system" (1967, p. 437). For Parsons, social order appears to be grounded in something outside of society altogether: the wider cultural system of values.[9]

Parsons equivocates on the notion of "social order" – for example, he regards as satisfactory an account of the emergence of *The Social System* which stops at dyadic interaction. The concept of "social order" is poorly defined in part because Parsons does not tell us what circumstances would fail to qualify as "order." One is left with the impression that *any* interaction, even a violent agonistic encounter or nonverbal eye contact, for example, would count as a solution to the "problem." If so, social disorder is ruled out from the very beginning, since their very encounter specified as a premise of the thought experiment counts as a solution in itself. Parsons acknowledges that in reality, this "problem" is always solved, that is, is never a problem – so we are left trying to answer in theory, what is never a problem in practice – that is, a virtual problem. I am arguing, in contrast, that the Parsonian formulation is not problematic because it is unproblematic in practice, but rather, that its insolvability itself is inconceivable.

Related to this problem of underspecification is that Parsons does not inform us of the circumstances in which these two strangers are encountering one another, except to suggest that, once they meet, they must realize they are not strangers after all and actually share a common heritage, a set of instructions which specifies their mutual comportments *vis-à-vis* one another (i.e., tells them how to behave). We do not know, for instance, whether or not their interaction is a chance encounter by one or both parties or mutually motivated. In other words, the thought experiment ignores the ecological conditions and biological imperatives that would be

necessary to provide any adequate account of the emergence of social order, even one that is explicitly not intended to have historical veracity.

That his "cultural" explanation of social order presumes that which it explains is a criticism made *ad nauseam* in the literature.[10] A number of separate criticisms, however, can be made, and it would be useful to discriminate them. First, this move to salvage social order by means of culture can be criticized for its immanent circularity, or perhaps, for not acknowledging this circularity. That "social order" is irreducible to atomistic interactions either in principle or in practice is not, however, a fatal flaw of the account. Furthermore, we can distinguish between a criticism against its implicit circularity from the standpoint of his inability to demonstrate the emergence of aggregate order (i.e., to "scale up" the dyadic situation to multiple actors) from the criticism that he fails to account for macro, collective references such as the "state" or "money." The two are not identical. The former task pertains to the aggregation of social structures or patterns from dyadic relationships, whereas the latter pertains to the emergence of collective institutions, reflexively acknowledged categories and types transposable across specific situations and multiple contexts (cf., Martin, 2009).[11]

More recently, drawing on the previous work of Harvey Sacks, Reich (2010) has proposed a reformulation of intersubjectivity as a problem of *accountability:* the "problem" of intersubjectivity and hence, double contingency, is solved once ego and alter realize that they are being observed, and hence, their (unobservable) thoughts and intentions are being inferred, and that these social inferences will impact them positively or negatively. We learn (to attempt) to communicate to others because we find doing so confers to us practical advantages, that is, communication improves our ability to control our (perceived) environments.

Reich distinguishes between two forms of understanding: observational and communicative. Observational understanding refers to the observation of emotional states that are hard-wired to the body, such as anger, fear, nervousness, and blushing.[12] Emotional signals are more difficult, but not impossible, to control, and are thus usually (although not entirely) unintentional. Communicative understanding, however, occurs whenever the understander [observer] "attributes [to] the understandee both intentionality and internal consistency, the former being necessary to reconstruct in-order-to motives and the latter to exclude 'hidden' motives and causes" (p. 58). Reich proposes that communication is motivated by the control efforts of the communicator. Communication happens reactively, as a response to the (anticipated) negative consequences of *not* communicating.

Reich's solution, however, crucially hinges on the use of "socially standardized rules" which make possible effective communication:

> The understander then uses socially standardized rules in order to decide what the understandee's behavior is supposed to tell her about what he thinks, knows wants to tell her, and so on.... As the example shows, *rules have to be standardized* but may vary with culture. (p. 58; my emphasis)

Moreover, according to Reich, individuals have the capacity to recognize and thus anticipate that others will place them in general social categories like gender, class, race, status, and so on.[13] How these general categories used by individuals themselves become distributed at the supra-individual level is left unexplained. Reich's concept of "socially standardized rules" of communication takes the place of Parsons's value system but is ultimately indistinguishable from it. Reich therefore presupposes what needs to be explained: the emergence of these rules (whether normative or linguistic) from the interaction of local actors and the mechanism of their reconstitution. Reich presupposes communicative competency in both alter and ego.

Luhmann's Solution: Order from Noise

In contrast to Parsons and Reich, Luhmann proposes that dual uncertainty is diminished endogenously. Following (second-order) cybernetician Heinz von Foerster, Luhmann invokes as his explanatory mechanism the principle of *order from noise*: unlikely occurrences, once they occur, can set in motion self-reinforcing processes that stabilize interaction patterns, making probable outcomes that were initially improbable. A chance encounter, for instance, may have life-long repercussions, and becomes meaningful only in hindsight. The mere expectation of the possibility that one's communication may fail or succeed seems sufficient to trigger a social system into existence. However, the degree of reciprocal knowledge required to reproduce a social system is a variable *that varies from system to system*.

Luhmann characterizes the basic problem of double contingency as an encounter between two "black boxes" which remain inaccessible to each other, but, "*through their mere assuming* they create certainty about reality, because this assuming leads to assuming the alter-ego's assuming" (1995, p. 110; italics in original). In this way, "order can arise that *is conditioned* by the complexity of the systems that make it possible *but does not depend on this complexity's being calculated or controlled*" (p. 110). Ego and alter can

only formulate expectations with respect to the other, which, in the situation of double contingency, adopts the form of expectations of expectations, as a specific means of increasing certainty. Because increased *risk*[14] accompanies the experience of increased certainty, however, the expectation of expectations channels the processing of information in one direction rather than another. In repeated encounters over time, one can observe the other's behavior and anticipate what the other is anticipating as a probable response. Because the expectations of others cannot be observed, however, ego must anticipate that others will expect them to respond as they have in the past. Agents can generate certainty, and hence order, by conforming to the expectations of others, thereby imposing on themselves some minimal degree of consistency.[15]

The problem, however, is always immediately solved, for to anticipate anything implies already a distinction between selected and deselected possibilities. From the point of view of the individual actor, order can be achieved so long as one does not act randomly and/or does not *perceive* that alter behaves randomly. Like Parsons, its status as a "problem" is thus entirely counterfactual.

Double Contingency is not Communication

The resolution of mutually perceived contingency in communication, however achieved, is insufficient for the generation of social institutions. Neither Reich nor Luhmann adequately distinguish between communication and mutual observation, on the one hand, and between language and communication, on the other. Double contingency alters the conditions under which coaction occurs.[16] The perception or sense of being observed, however, is itself neither communication at the supra-individual level nor the conscious experience of communication at the personal level. One would need to adequately distinguish communicative and noncommunicative interactions to sufficiently appreciate the difference. On the one hand, the capacity for consciousness to anticipate anticipation and to attribute this capacity to multiple addresses (self and other) seems to render the experience of communicative "contact" ubiquitous.[17]

On the other hand, this experience of second-order anticipation is not itself communication or even the experience of communication. Chess players make moves by anticipating their opponents' responses (and also by anticipating that their opponents are anticipating that their responses will be anticipated).[18] The anticipations of the players constitute sets of possibilities

from which their own moves are decided and their opponents' moves predicted, but these contexts of possibility cannot be communicated themselves. The player communicates only by moving her piece. Prior to this behavioral signal, communication could only have been anticipated. *Double contingency is the anticipation of communication*, which can remain latent. It is also, however, the precondition for the possibility of communication.

Luhmann writes that the emergent social order arises out of the experience of double contingency and the perception of being perceived.[19] Perception becomes social "when one perceives that one is perceived" (1995, p. 412). Explicit communication can then link up to this reflexive perceiving, which is the experience of mutual awareness initiated by double contingency.

It is important to distinguish the question of the conditions of possibility of order as such, and what is sociologically relevant here is *institutional order*, from the uncertainty regarding which kind of social order will arise, once this possibility is secured in the capacities of humans to use language. It is unclear what sort of order is being explained, although presumably the former. One shortcoming of Luhmann's account of double contingency with respect to the emergence of institutions is it need not entail human actors at all, since the procedure by which social order emerges describes equally well any nonhuman animals or machines with the capacity for mutual perception. Certainly his account can give us linked, dyadic social structures, in the restricted sense specified by Martin (2009), but it is far from providing a convincing account of institutions. To do that, language must be invoked.

LUHMANN AND THE COMMUNICATION OF COMMUNICATION

For Luhmann, communication has taken place when an observer infers that one possible behavior (among others) has been selected as a means of expressing one possible message or idea (among others), and attributes these selections to a common source. Communication thus necessarily entails three selections: the observation of the distinction between information and utterance distinguishes communication from other perceptions (see Fig. 1).

The use of the term "understanding" [*verstehen*] means that a communication is understood *as a communication*, or in other words, that

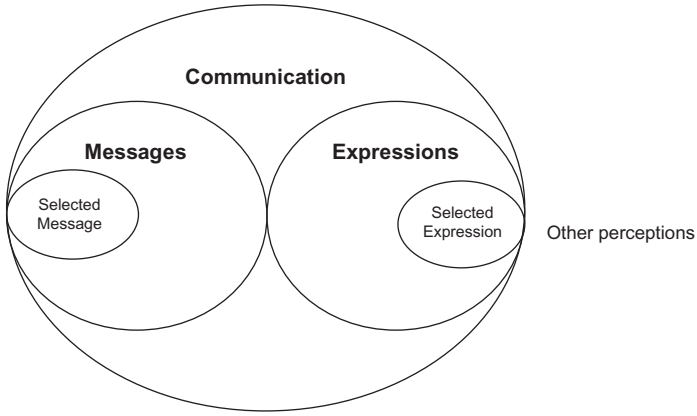

Fig. 1. The Structure of Referential Communication.

it is *recognized* as a communication. First, it must be distinguished from other perceptions. It must be noticed. Second, what is noticed has to be *recognized* as two concurrent selections: *what* the message is (information), and *how* this message is expressed (utterance). Both are regarded as *motivated* selections that are necessarily contingent, in the sense that they could have been otherwise. When we observe any communication, we can choose to focus on or respond to, either the message itself or its means of expression. Consequently, c*ommunicating about something is always also a way of communicating about oneself and about the others that one addresses*.[20]

Central to this understanding of social order is the shift from a ''transmission'' model of communication to a self-referential model emphasizing the role of the observer.[21] The message sent is not necessarily the message received, and strictly speaking, neither *meaning* nor *information* are physically transferred from one location to another, nor are thoughts teleported between minds. One can observe another's behavior, but behavior does not always imply communication. Communication is therefore inferred, or even ''imaginary.'' Communication is not caused by a psychic or spiritual *will* to communicate, nor is human intention the essence of meaning. Instead, communication is an emergent and self-generated phenomenon arising from an environment of (anticipated or remembered) human interaction. From this point of view, intentions arise retrospectively, as the motives attributed to observed communications.

Communication and Meaning

Niklas Luhmann, in reference to the transcendental phenomenology of Edmund Husserl, defines *meaning* or the making of *sense* [*Sinn*] as the unity of the distinction actual/possible, that is, as the "simultaneous presentation of actuality and possibility" (2002, p. 83). Meanings are not passively received properties "attached to" past experiences or objects. Meaning is an active process of sense making, "a kind of attention that is directed to this experience" (Weick, 1995, p. 26). Meaning is like a flashlight: the light is not a property of that which it illuminates, but is nevertheless a precondition for its illumination and visibility as an object of visual perception. Sense (i.e., *meaning*) is not a frame of reference, but the medium of framing and through which frames are observed. Meaning, therefore, has "no outside, no antonym, no negative form" (Luhmann, 2002, p. 83). Even the theme of "meaninglessness" makes sense when distinguished from and within meaning.

For Luhmann, both psychic and social systems process *meaning* through the use of *symbolic generalizations*. The psychic and the social can thus be regarded as two dimensions of meaning, coupling minds and society.[22] Systems that process meaning are able to simultaneously vary their selected messages and their contexts of message selection. The processing of meaning may therefore be alternatively defined as the recursive process of comparing comparisons, and this *process* is *dynamic* and *reflexive*.

Information and Meaning

For Luhmann, both psychic and social systems process *meaning* through the use of *symbolic generalizations*. The psychic and the social can thus be regarded as two dimensions of meaning, coupling minds and society.[23] For Luhmann, communicative events reconstitute structures of meaning because communications are always "understood" as (double) selections from contexts of possible selections. The distinction between the actual and the possible (*i.e.,* meaning) is thus reinforced with every communication.

Luhmann adopts Gregory Bateson's (1972) definition of information as "a difference that makes a difference," *for an observing system*. Information has no existence apart from an observing system.[24] In other words, a difference that makes no difference is no difference. Information updates or is the process of updating a (relative) difference between expected and unexpected. Luhmann defines information as "an event that selects system

states'' (1995, p. 67). For systems that process meaning (i.e., psychic and communication systems), *''all information has meaning*'' (67; my emphasis).[25]

Leydesdorff distinguishes between ''information as uncertainty and information that is meaningful to a system receiving this information'' (2006, p. 49). According to Shannon's (1948) mathematical and content-free definition, information is the reduction of uncertainty, that is, entropy.[26] Entropy refers to the uncertainty of predicting a message (''signal'') from a set of possible messages. The more uncertain or unlikely a message is (*ex ante*), the more information it transmits (*ex post*) when and if it is eventually selected.[27] It follows that the entropy of a given set of possible messages is maximized when each selection is equally probable. Shannon's (1948) mathematical concept of information therefore bears no relation to the meaning or importance of messages.[28] An incoherent and random AU :1 juxtaposition of words is therefore quite informative in this technical sense, but utterly meaningless.

Bateson's ''difference that makes a difference'' entails a selection of a difference from a set of differences, and thus already implies primary variation, or what Leydesdorff refers to as ''Shannon-type information'' (2006, p. 48). Shannon-type information precedes information processed within a system and can be regarded as part of the system's environment (as perceived externally by *another* system or subsystem).

A biological example will help clarify this distinction. Human eyes have an estimated information bandwidth of approximately 10 million bits per second. Of the 10 million bits per second, humans are only capable of consciously attending to 40 bits per second (cf., Nørretranders, 1999). The raw, visual sensory data constitutes Shannon-type information, and that aspect of information that can be consciously perceived at any given moment constitutes Bateson-type, or what Leydesdorff refers to as, *meaningful* information. It follows that Shannon-type information (''uncertainty'') cannot be directly observed from within a system or single frame of reference, but instead constitutes part of a system's environment, as observed from an external point of view.

Leydesdorff (2006) explicitly links Shannon-type information, meaningful (Bateson-type) information, and meaning as iterations in a recursive process of selection. Accordingly, just as meaningful (Bateson-type) information is defined as a ''difference that makes a difference,'' *meaning* can be defined as ''information that makes a difference,'' and *knowledge* as ''meaning that makes a difference.''[29] This entire process is depicted in Fig. 2. To avoid confusion, I call Shannon-type information ''uncertainty'' and Bateson-type

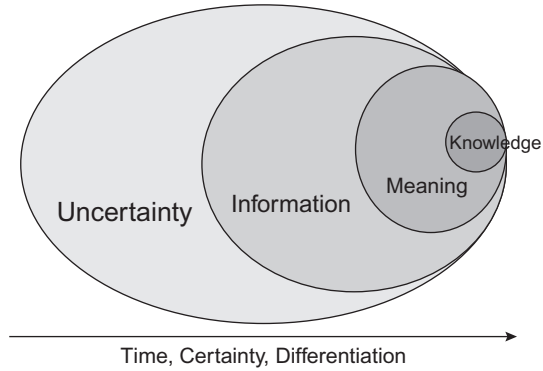

Fig. 2. Uncertainty, Information, Meaning, and Knowledge.

information "information." The horizontal axis can be viewed from the perspective of (at least) three orthogonal dimensions: time, certainty, and differentiation. The distinction between uncertainty, information, meaning, and knowledge is relative. Notice that the processing of knowledge and meaning selection presuppose a continual injection of uncertainty as a resource to enable selection to continue. As Luhmann notes, information processing constrains possibilities but never entirely "[pins] down the system" (1995, p. 68).

In principle, this recursive process of selection could be extended indefinitely. The important point is that "selection" presupposes a context of variation. Systems that process meaning are able to simultaneously vary their selected messages and their contexts of message selection. The processing of meaning may therefore be alternatively defined as the recursive process of comparing comparisons.

The Duality of Communication

An observer of a communication can always distinguish *what* is communicated (i.e., information) and *how* this information is expressed (i.e., utterance). Whenever we communicate symbolically we are always also communicating behaviorally (i.e., at the relationship level). Communication operates along two channels simultaneously. Consequently, one can focus on and orient one's responses toward either the information or how the

information is expressed. Two sets of contexts must be inferred: *the context of possible behavioral expressions* and *the context of possible messages to convey*.

Communication entails, moreover, a kind of ontological oscillation between subject and object, that is, between the reflecting and reflected. This occurs because, in communication, information and utterance are simultaneously distinguished and coupled. This distinction can be understood as a distinction between external or hetero-reference (via information) and self-reference (via utterance).[30] Like consciousness, communication is always *about* something else and communication about itself simultaneously. Communication thus shares with consciousness the same structure of intentionality: "just as consciousness is always consciousness of something, communication is always communication of something" (Tada, 2010, p. 181).[31] In its very form, however, communication simultaneously reintroduces the possibility of reflexively becoming its own object. According to Luhmann (1995, p. 440), if a system orients itself toward the *unity of the difference* established by its own system–environment distinction, the system has gained *distance* from itself and operates simultaneously at a basal level of distinguishing and a meta-level of distinguishing its distinctions from other possible distinctions. Such a system can also become anticipatory.[32]

The distinction between self and hetero-reference is a recursive application of the system–environment distinction from within a system. Communication and consciousness are structured both by a double distinction or recursive contextualizing. Pure external-reference would constitute mere reactive responses to determining stimuli, whereas pure self-reference would deteriorate into tautology and paradox.[33] For Luhmann, the paradoxes of pure self-reference can only be "solved," or dissolved, in practice, by introducing different levels of observation, that is, by distinguishing between *different observational perspectives or contexts*. This is the "transformative formula" through which the observer "can make his appearance in two ways: as an external observer who sees that another system is observing itself, or as a self-observer, which is to say, somebody who observers himself, refers to himself and states something about himself" (Luhmann, 2006, p. 54). Switching contexts and perspectives, then, is a necessary precondition for both conscious and social systems.

Luhmann's distinction between utterance and information is roughly coterminous with the distinction between *communicating behaviorally* (i.e., analogically) on the one hand and *communicating symbolically* (i.e., digitally) on the other hand. Behavioral communication and symbolic communication are two channels of communication operating

simultaneously. Thus, the distinction between structures and events corresponds to the distinction between meaning and information. Structures of meaning are observed patterns of communicative events, upon which expectations can be formed. Structure is a misleading metaphor, however, to the extent that it connotes properties of concreteness or permanence. Structures of meaning are patterns of expectations distinguishing themselves through multiple perspectives, that is, experiencing themselves through temporal transformation.

Meaning does not reside in the words, but rather, in their use, that is, their selection. Communication consists of the coupling of perceived variation (''information'') with meaningful experience. It follows that a structure of expectations can vary on two levels: first, at the level of selected messages, and second, at the level of the possibility set. In other words, we need not assume that the set of possibilities from which selection takes place is fixed. Contexts of meaning are unstable, *that is*, variable. I will refer to this as the *double contingency of structure*. As with the double contingency of consciousness, the double contingency of structure abates the complexity of their referential possibilities by means of a dual selection: at each moment, both the horizon of possibilities (including, of course, possible but absent and impossible but conceivable) and the present state constitute contingent selections.

Linguistic Communication as Symbolic Interaction

What kind of influence is linguistic communication? Communication is not only the elicitation of observed behaviors (e.g., commands expressed in one-word utterances). It is a form of mediated, symbolic interaction (cf., Mead, 1929). Communication does not signify the capacity of an action to ''make a difference'' in the sense of determining causally effects in the world. Instead, communication entails the capacity of ego's selection to influence or ''condition'' the selection of alter *and* vice versa, namely, the possibility that ego's selection will be influenced or conditioned by that of alter. This condition has been described by Parsons as one of double contingency, meaning mutual uncertainty and reciprocal determination. Luhmann's analysis reveals that social (as opposed to causal) relationships always take this form. Communication implies choice on both sides. By communicating *with* others I do not *determine* their behavior (even if that is my intention *and* even if, in hindsight, my efforts appear to have been successful), but rather, anticipate that the probability of their possible behaviors has changed, and this includes the behavior of communicating itself. Once a communication is

AU :2

recognized and noticed, at the very least the odds of subsequent communication, perhaps initially improbable, become more probable. *Social relations are above all communicative relations*.

Loyal and Barnes (2001) propose that the concept of agency is a "red herring" for whether or not human actions are *caused* or *chosen*, ultimately makes no difference to either prediction or retrodiction. However, the attribution of agency *does* make a difference for how society distributes praise and blame for (un)desirable or (un)expected outcomes, for actions identified as "chosen" as opposed to "caused" are behaviors for which agents are held accountable or responsible (e.g., in a legal or moral sense). More importantly, consciously chosen actions are regarded as behaviors "that could be modified or inhibited by symbolic communication, or as we often say, by persuasion" (Loyal & Barnes, 2001, p. 521). Moreover, the attribution of agency to another implies a reciprocal attribution of agency to oneself, and to one's potential susceptibility to another's communicative influence.

The belief in agency is thus the anticipated causal power of symbolic communication. Conversely, agency signifies the anticipated susceptibility to influence via symbolic communication: "the custom of referring to causation [is used] to index how resistant to modification through communicative interaction an action is considered to be" (Loyal & Barnes, 2001, p. 523). Agency only makes sense as an exhortation, as a persuasive tactic *with whom* one speaks, but not as a description of those *about* one speaks from an external or third-person point of view.

Macro-agents (Mouzelis, 1995) are thus individual agents representing or disproportionately influencing social structures and with whom one may communicate and potentially influence. Social structures in this sense can be regarded as contexts of participatory action. On the other hand, social structures are more commonly regarded as contexts of nonparticipatory observation, in which one can only communicate *about* structure, not *with* structure. Social structures in this sense are aspects of the environment of agency.

Communication presupposes agency: the ability to communicate implies a capacity to have selected a different message, to have selected a different means of expressing that message, or to have not communicated at all. Inferring communication certainly presupposes some modicum of agency. The *environment* of communication signifies that which is beyond the *immediate* reach of communicative influence: a system can communicate *about* its environment, but not *with* it. Whatever communication communicates *about*, however, is still *within* communication, in the sense that the

content of communication can have immediate effects. In such cases, we attribute causal powers to the message rather the messenger. In this way, human communication, exhibiting the capacity for symbolic reference, enables the direct albeit mediated tie between alter and ego, to be forge an indirect link to an *absent third*. Words are spoken *by* someone *to* someone *about* someone or something. According to Taylor and Every (2000), the delegation of responsibility to an *agent* who acts on behalf of another is the "key mechanism explaining the emergence of more complex forms of organizing" (p. 36).

Ontological Oscillation and Nonlocality

Moreover, in *linguistic* or symbolic communication, not only do the observed behavioral expressions of alter influence ego's behavior but also the informational content of these behavioral expressions (i.e., what they are *about*) can influence behavior. This implies that social causes are inherently overdetermined or redundant. If alter communicates to ego *about* some event *X* that alter has experienced or observed, and this informational content influences ego's subsequent behaviors (or behavioral propensities), then what do we regard as the "cause" of this change? Ego's response, depending on one's observational frame, can be regarded as a causal consequent of (a) the behavioral expression of alter (i.e., the actions of alter); (b) the behavioral propensities of ego; or (c) the information content of the message. In other words, *information* itself may be accorded causal power when making sense of social life. Of course, the information itself may be attributed to ego (as necessary interpreter and receiver of information) or to the world at large.

Are representations (i.e., the informational content) properties of the represented or representing systems? Information as difference cannot unambiguously be located in either. Communicated information is always communicated within communication and thus appears to originate from multiple sources at once: both from the communicative utterance and from the given state of affairs to which the communicative utterance refers. Information is thus intrinsically nonlocal.

Downward Causation

This raises an interesting possibility regarding the issue of social emergence and downward causation (cf., Greve, 2010; Sawyer, 2005). If the social

"whole" is functionally equivalent (for an observer) to the set of individuals and their relations, then there is no difference between imagining social structures ("wholes" or networks) or imagining the sets of individuals (parts or nodes) constituting them as causes. The idea of downward social causation is thus not ontologically "real" but rather a particular reference frame or way of describing social phenomena.

As pointed out by Brian Epstein (2009), ontological individualism, which asserts a dependence (i.e., relation of "supervenience") of the social on the individual, ultimately fails because many social properties are determined by properties and objects found in the physical *environment*, for example, that cannot be plausibly taken as properties of individual persons. This is only possible, however, if these properties are attributed to nonhuman objects in the course of communication, and this in turn presupposes the capacity for symbolic reference.

If one adopts some form of externalism (i.e., the idea that sensory perceptions are themselves evidence of the objectiveness of objects), then, accordingly, the social whole understood *as information about the social circumstances or social structures* can exert "downward" causal impacts on individuals who are cognizant of and/or communicate about outside social circumstances and social structures. This applies universally: an outside, sociological observer may become capable of seeing what the "native" does not see, but for there to be any observed effects of social structure, these effects must be observed. Downward causation can therefore exist in the sense that communications *about* society (whether valid or invalid) influence individual behaviors. Global networks are capable of being hypothesized and communicated *about* locally *among* the nodes. It would be a mistake, moreover, to regard this as mere nominalism or idealism, for the ideas are not assumed to be generated in a solipsistic manner. Instead, the capacity for communicating referential information about the environment, for communicating information about objects and events that are not immediately accessible, and for communicating what one has heard but not seen, these are the preconditions for the possibility of social institutions, as defined by Mead (1934) and Martin (2009). Linguistic communication enables indirect influence and the coordination of generalized expectations (cf., Vološinov, 1996).

Institutions emerge whenever global visions (i.e., macro patterns of social structures) affect local behavior. Institutions, like the informational content of communicated messages, are fundamentally nonlocal: they exist simultaneously as expectations "in the heads" of individuals and also as that external state of affairs (whether validly or invalidly apprehended) to

which the expectations refer. Information about social structures (as first-order aggregate patterns of social relations) gives rise to the emergence of social institutions (as second-order references to these patterns in communication).

LANGUAGE, SIGNS, AND COMMUNICATION

To explain the role language plays in constituting human institutional reality, it is necessary to distinguish it from communication. An elegant summary is provided by Maturana and Varela (1998), who define the linguistic realm as all "ontogenic [i.e., learned] communicative behaviors" (p. 209), where "communication" refers to all "the coordinated behaviors mutually triggered among the members of a social unity" (p. 193). We "language," they argue, whenever we begin to make linguistic distinctions of linguistic distinctions. According to their view, communication transmits no information and is, like Luhmann's model, observer dependent. Although appealing, this definition does not yet specify with sufficient precision the essential features of human language that makes it possible to engender institutional realities, namely, generalized symbolic reference.

All animals, including humans, communicate nonlinguistically. Non-linguistic, human forms of communication include innate communicative signals (e.g., facial expressions and smiling), manual gestures (aka "body language"), and music (Fitch, 2010, p. 25). Human language possesses three unique features which, when taken in combination, are not found in other species (that we know of): syntax, learning, and symbolic reference. I will focus on the latter two.

Fig. 3 shows a typology of interactive or "communicative" behavior. Communication, defined broadly as all forms of interaction, can utilize signs or not. Ackoff and Emery define a "sign" as "anything that is a potential producer of a response to something other than itself" and a "symbol" as a sign of a sign, that is, "a sign that is a potential producer of a response to something, which in turn is a potential producer of a response to something other than itself (1972, p. 168). Rain is not a "sign," but could become a sign if I regarded the rain as an indicator of an approaching hurricane or bad omen, to which I had to respond. In either case, however, my behavior in response to the rain is not "communication" because the sign (rain) is not produced as a response to some other previous sign (whether natural or artificial). According to this definition, responses to signs can be dislocated in time and space, and communication to and with machines is possible.[34]

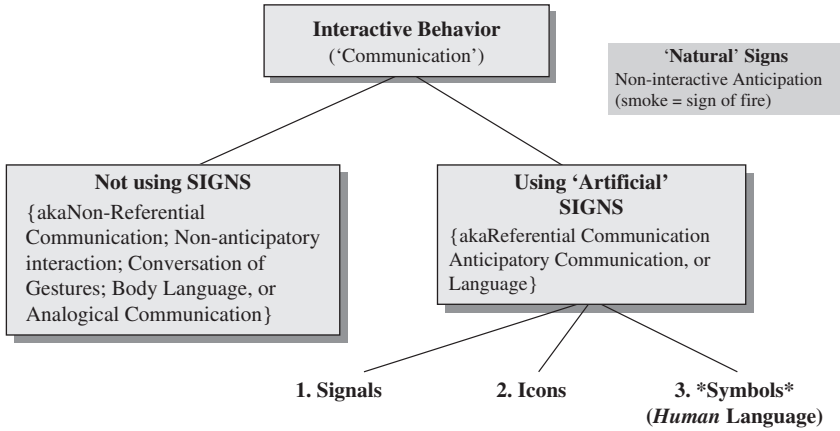

Fig. 3. Typology of Interactive Behaviors.

Signs

Communication not making use of signs includes Mead's notion of a "conversation of gestures," "body language" (e.g., unconscious facial expressions and movements). In a "*conversation of gestures*," responses are immediate and without deliberation. Ritualized gestures, involving the *prolongations of "intention movements"* (i.e., behaviors that precede an action), often performed in the same way for their communicative value, are included in this category as well, although it could reasonably argued that such gestures constitutes "signs" since they elicit responses to future, that is, *anticipated* behaviors (cf., Martin's discussion of pecking orders, 2009). As Martin (2009) observes, "The dog who growls for some time before attacking may be the dog that does not need to attack" (p. 118).

Communication not making use of signs includes behavioral communication that *expresses* immediately that which it communicates, that is, by making present its referent through physical demonstration. These forms of interaction are mere stimulus–response relationships in which the behavior of one organism elicits a response from another, and this response is an immediate response to the stimulating behavior.

Arguably, the "language of the honeybees" is nonreferential communication which does not make use of signs. Although the "dance" of the honeybees has been decoded and understood as providing information, this is only from the point of view of an outsider observer. Likewise, because

humans possess this capacity to attribute meaning to physical events (i.e., to see it as the selective expression of some information), behaviors such as laughing and crying, which are nonsignifying behavioral responses, can always be interpreted as signs (i.e., indicators) of something else. Communication that makes use of signs include the use of more primitive signals as well as symbolic speech differentiated into the dimensions of informational content and behavioral expression Each are in turn discussed below.

Signals

Signals are one-word utterances conveying simple commands. Signals are "intended to" (or "serve the function of") eliciting specific behaviors from others. Signals do not yet distinguish between indicative and imperative moods. In other words, behavioral expressions and their values (i.e., the information they express) are coupled and fixed (Oller, 2004). Moreover, AU :3 animal signals evolve from, and remain anchored to, particular, concrete circumstances happening in present time. A vervet monkey, for instance, is only capable of "referring to" a flying predator as an immediate vocal warning call in response to the visual stimulus of this predator, which in turn serve as a stimulus for the other monkeys to run downward into the trees and not, for example, to imagine this predator. Signals have no meaning apart from specific behavioral responses. This context dependence also makes it impossible for signals to carry second-hand, or "indirect" information: a vervet monkey which has seen an eagle can elicit the appropriate behavioral response to others in its group; this information is passed along by means of imitation, but even in the most advanced signals, it is not yet possible to report *that* the first monkey has seen an eagle.[35] Bickerton observes that animal communication systems "all share the same limitations: they all consist of single, unrelated signals that can't join with one another to make more complex message, can't be used outside of particular situations, can't do anything but react to some aspect of the here and now" (2009, p. 24)

Symbols

According to Oliphant (2002), human language is "the only existing system of communication that is both learned *and* symbolic" (pp. 23–24). Symbolic communication enables one to "refer to" objects that are *not present*, a

capacity referred to as *displacement*. Icons represent something by virtue or resemblance, such as a picture or a painting. Words substitute for the things to which they refer, without having to actualize them or represent them (i.e., make them present). To refer to something symbolically presupposes some distance to that thing: this distinguishes the behavioral expression of communication from its content. *Symbolic communication both invokes relationships and indicates* informative *content* simultaneously, but tends to conceal the former and focus our awareness on the latter. Moreover, only when symbols are used to stand in for absent referents, is the extent of separation sufficient to generate something like an ''indicative mood'' or an abstract concept of negation (cf., Bateson, 1972).[36]

Luhmann on the Function of Language

Luhmann calls *media* the ''evolutionary achievements'' that transform improbable into probable events (1995, p. 160). Language is the medium that makes the ''understanding'' of communication more probable. Through the use of acoustic and optical signs exhibiting patterned variability, language attracts perceptual attention.[37] *Language* helps overcome the barrier that a communication will be noticed or recognized as communication. Through the use of signs, the difference between information and utterance, and also self- and external-reference, is accentuated: symbols are always *about* something else, and because the signs are unlikely to occur by accident or randomly, and because their forms of expression do not serve some other noncommunicative function, once perceived, they are understood as communication. A mere behavior interpreted as nonlinguistic communication is more ambiguous and less directed. A person may laugh or cough, and this can be interpreted as directed communication or not. When one speaks, however, communication is almost always presupposed.

Communication between organisms is in some sense homologous to conscious perception within organisms. Communication is thus commonly regarded as an extension of conscious perception. Just as communication is regarded as an extension of conscious perception, the primary function of language can be regarded as the extension of communication (Sayre, 1976, p. 189; Sinha, 2004, p. 218). For clarity I will assume that human language and symbolic communication are coextensive. By using symbols, rather than signals or mere perceptual inputs, communication about communication becomes possible. This entails fixing an instance in the communicative process and treating it as a reference, that is, an action or utterance

attributed to a communicator. This expands the sphere of reference by transforming, as if by magic, the words as things in themselves, that is, by reifying communicative relationships.

Luhmann suggests that:

> [L]anguage itself cannot be understood as a mere concatenation of signs, because its function is not only or even primarily to refer to something that exists independently of language. Language is also not just a means of communication because it functions in psychic systems without communication. Its true function lies in generalizing meaning with the help of symbols that – rather than designate *something else – are themselves* what they perform. Only in its function as a medium of communication – which, from the viewpoint of evolution, seems to have been its original function – is language bound to coding, and thus to acoustic or optical signs for meaning. (1995, p. 94)

Luhmann highlights two functions of language that are often ignored: language's generalizing or typifying function and its performative (or also its "perlocutionary") functions. Language enables humans to *both* think and communicate not only referents but also the categories or classes to which these referents belong, rendering possible the capacity for cooriented schemas of categorization, that is, for generalizing the forms of generality. Moreover, language can also "construct" that to which it refers in the sense that the latter has no existence independent of its representation. This is why, according to Searle (1995), "language is essentially constitutive of institutional reality" (p. 59).[38]

Elsewhere, Luhmann notes that recursive, mutually reinforcing relationship between language and speech:

> Language is possible only on the basis of the operation of speech; one would soon forget one's language if one could never speak and had no opportunity to communicate – or rather not even learn it in the first place. Conversely, language is the condition of speaking. This circular relation presupposes as framing, as condition, the identity of specific systems within which this circle is brought into operation or transformed into sequences, such that time can dissolve the circle. That is, the relation is circular only if abstracted from time. In reality, however, there are operations that establish with a minimum of structural effort more complex structures, which, in turn, enable more differentiated operations to take place. (1995, p. 149)

To summarize, five interdependent, interrelated, and overlapping characteristics of symbolic language can be enumerated. First, symbols are not innate, but flexible, arbitrary, or conventional. Unlike the symbolic communicative behavior of honeybees and other social insects, human language is learned, rather than fixed or determined, and is thus not entirely innate.[39] This "functional decoupling" of information and utterance makes possible the adaptation of language use within the individual organism and

also cultural learning. Second, symbols refer to *absent* references, that is, objects that are not present, but possible or conceivable. Words stand *in* for the things, that is, serve as substitutes for them. This distinction is uncertain and can lead to two outcomes: first, the adoption of the "natural attitude" or the "intentional stance" which entails suspending one's disbelief, taking for granted what another communicates and implicitly asserts in the act of communicating and second, the attitude of critical suspicion against the implicit naturalizing and legitimating functions of discourse. Third, Linguistic communication constitutes a differentiation of imperative and indicative grammatical moods: one not only can command or direct one's call to another's behavior, it is also possible to direct one's attention without implying any determinate behavioral response outside the context of communicative behavior.

Fourth, linguistic communication facilitates *indirect, mediated communication*, that is, hearsay or gossip. Symbolic communication enables one to talk about what one has *heard* (from someone else) and not only about what one has *seen* personally. Finally, and related to the previous point, symbols are not just particular references, they are also categories: they refer to something as a particular entity and also as a member of a general category or class of beings to which it belongs.

SUMMARY AND CONCLUSION

Language enables us to communicate using two (or more) codes simultaneously. Because of language's recursive capacity to communicate informational content (including communicative relations), humans can simultaneously communicate a selected message and a context of message selection. Languages enable *contexts of selection* (i.e., structures of meaning) themselves to become reflexive objects of communication. Language enables information and contexts of information (i.e., meaning) to vary simultaneously while remaining coupled in each communication.

An important difference between human linguistic communication and other forms of influence is that the former communicates uncertainties or contexts of selection, that is, a distribution of possible future or past states. Institutions exist as communicated expectations regarding the (future or past) communication of others and their expected contents. Institutions exist only as expectations concerning the expectations of others. These expectations, however, are not only in the mind, and they are not exclusively psychological entities. Linguistically, these expectations appear as the

reported statement within the reporting statement, that is, as the extensions of the communicative relation *B* contained within the first-person present communicative relation *A*, or *A*(*B*), both of which take the form $x\mathbf{C}y(Z)$. Thus, indirect communication, communicating generic extensions of the communicative relation $x\mathbf{C}y(Z)$, is a precondition for the possibility of human institutions: statuses, roles, "generalized others," and so on.

Specifying the micro-foundations of social structures in terms of communicative inferences necessitates a revision of the concept of social structures (and institutions) as distributed, and hence, uncertain, structures of expectation.[40] I argue that institutional realities are generated in linguistic interaction through the indirect communication of generic references. The generalizing function of language, in particular, abstraction and memory, coupled with its reflexive function, to turn references into things, in my view are sufficient to generate both social structures and institutions as collective inferences. Importantly, the ability to communicate uncertainties is directly linked to the capacity to refer not only to specific concrete individuals or objects but, more fundamentally, to categories and types. This distinction between concrete particulars identified with proper names (e.g., John, Fido, Hurricane Katrina) and generic categories (e.g., person, dog, hurricane) is certainly relative. For example, "The First World War" is a proper name that seems to indicate a singular, macro-historical event, which, from another perspective, is clearly just shorthand for countless individual experiences. The important point is that the basal referent *Z* is ultimately uncertain or unstable. Uncertainty is another way of describing vagueness or polysemy. Adopting a frame of reference means fixing these basal referents for purposes of communication and observation, such as when a sociologist reduces abstract references like "the economy" to "human relationships." I am proposing that the basal uncertainty of the original reported statement *Z* be formulated generically as a communicate relation, $x\mathbf{C}y$.

An important implication for current sociological theory is that, from the point of view of a sociology defined as communication about communication from within communication, institutional realities should not be reified as existing naturalistically or objectively above or behind the communications through which they are instantiated. This approach, then, is decidedly anti-"realist." I concur with Martin (2009): social structure is *not* "something that *causes* regularities in action"; rather, social structure "is simply what we *call* regularities in action" (p. 7–8). Institutions can be specified sociologically as the communicative acts themselves, about which the analyst can provide a first-hand, empirical account and formulate testable hypotheses (i.e., expectations). Thus, sociology breaks the chain of indirect

reference (e.g., hearsay, gossip) and remains wedded to communicating its own unique first-person account of the first- and third-person accounts already communicated elsewhere. Moreover, sociology in this approach becomes far more uncertain and less dogmatic about its claims, which are always hypotheses or expectations, the success of which can only be pending, until further notice.

My aim in part is to demonstrate the inadequacy of nonreflexive models of social order (i.e., models that do not reflect upon the media through which they communicate). Any account of how sets of social relationships (i.e., social orders) emerge is inadequate if it does not reflect upon the cognitive and communicative processes which make possible the consideration of such structures. Social institutions originate from our capacity to not only enter into direct communicative relations with others but also to communicate indirectly about these communicative relations. By specifying the emergent linguistic basis of human organization, this essay expects to demonstrate that social orders are ultimately as real, and constructed, as human consciousness.

NOTES

1. "Local" as used here does not mean unmediated, as all communication is mediated to some extent. Thus, a local communication would include all persons included in a conversation, even persons separated in space and time. The difference between locally and nonlocally is the same as that between first-person and third-person accounts of social events (cf., Martin, 2011).

2. The term "communicates" may of course itself be treated as a variable (say, ***R*** for "relation" as in ***XRY***) and substituted with other predicates (e.g., acts, influences, causes, infers, understands, interprets) I also include here in the formal definition of the communicative relation other forms of the term "communicate" (e.g., communicated, has communicated, was communicating, will communicate).

3. In earlier works, Searle (1995, 2005) uses the term "observer-relative." He drops this term because it seems to imply that the existence of social phenomena such as money and governments are dependent on the perspectives held by external, nonparticipating observers (e.g., anthropologists imputing to some indigenous group a monetary system). This interpretation would essentially conflate status functions with Merton's concept of latent functions. Instead, Searle means to say that people have to believe, accept, or recognize a status function as existing for it to exist socially.

4. On the distinctive and constitutive role of indirect speech in human language, see "On the postulates of linguistics" (Deleuze & Guattari, 1987; Vološinov, 1996 [1973]).

5. The notion of intentionality, as I will argue below, is also a distinguishing feature of human communication. Luhmann discusses this notion in terms of the

concept of *reference,* which he construes as a weak form of observation, that is, a drawing of a distinction without significance for or relevance to an observer.

6. The concept of intentionality is generally attributed to Franz Brentano in his work *Psychology from an Empirical Standpoint* (1995 [1874]). Brentano regarded intentionality as the sole defining feature of consciousness, distinguishing it from brute matter.

7. This term derives from Freud, who distinguishes the preconscious from the unconscious, the latter of which he identified with those repressed memories to which we did not have access, presumably because they were anxiety provoking. While Searle disregards the notion of the "unconscious" altogether, I reject only the Freudian theory of the unconscious. I regard as uncontroversial in cognitive sciences the notion of a cognitive unconscious.

8. Searle acknowledges expression and representation as two functions or aspects of language. Expressions such as smiles, laughing, questions, or injunctions are neither true nor false, and so cannot be criticized or defended on these grounds. Searle confines his discussion in *Making the Social World* (2010) to representations.

9. Barber (1994) notes that Parsons uses the term "social system" inconsistently, as both the whole society and as one of three subsystems of society, alongside the cultural and personality subsystems.

10. To cite only two, Herbert Garfinkel, a leading figure in ethnomethodology and a former doctoral student of Parsons, argued that Parsons reduced individuals to "judgmental dopes." Granovetter characterized Parsonian accounts of social influence as a static and taken for granted, "external force that, like the deists' God, sets things in motion and has no further effects – a force that insinuates itself into the minds and bodies of individuals (as in the movie *Invasion of the Body Snatchers*)…" (1985, p. 486).

11. The extension of the concept of double contingency to that of third (or higher-order) contingencies has also been explored. For instance, Piet Strydom (1999) uses the term "triple contingency" to refer to the emergence of an anonymous and physically absent public in modern society, resulting from the uncoupling of communication from physical copresence. Harrison White and his colleagues (2007) propose an extension to *n*-contingencies. Introducing a third contingency into human interaction can be regarded as analogous to the introduction of a communication channel mediating alter and ego. Failures of communication can thus be attributed to alter, ego, or the communication channel itself (cf., Leydesdorff, 2003).

12. According to TenHouten's neurocognitive sociology of the emotions, "Emotions signal that a social situation demands attention. They are adaptive reactions to the simplest and most basic problems of life and also to problems of great complexity" (2007, p. 8).

13. A fascinating experimental study conducted by Boltanski and Thévenot (1983) explores the relationship between individual mental representations (i.e., images or categories) and the social processes that generate official representations of groups. They find that ways of categorizing people were correlated with the milieu and background of the person categorizing.

14. Risk refers to the possibility of losses attributed to system decisions, which in principle can be foreseen, whereas danger refers to those possible losses attributed to the uncontrollable environment (Luhmann, 2008).

15. This interpretation has been tested in a formal simulation (Dittrich, Kron, & Banzhaf, 2003). They distinguish between two "motivations" or means of generating certainty in a situation of mutual contingency: expectation–expectation (i.e., "How do I usually respond in these situations?) and expectation–certainty (i.e., "To which of my possible actions am I most certain of your response?"). Operationalizing order at the individual and system-levels, the latter referring to a generalization of action sequences across a population, they find that only expectation–expectation yields social order. In addition, they find that in situations involving more than two persons, social order would only arise "if there is a mechanism of 'information proliferation,'" that is, the "observation of others" (2003). See also Barber, Blanchard, Buchinger, Cessac, and Streit (2006).

16. More precisely, it changes the probability distribution of behavior. Since we can never know with certainty what we would have done in the absence of being observed, the knowledge of being observed enables us to mark the distinction between what is possible and what would have been possible in the counterfactual (unobserved) condition. I propose that double contingency can be modeled as the introduction of a new parameter value in a state space model. As a condition, it does not necessarily change the selected actions but changes the probability (or frequency) distribution of actions. In other words, it changes the decision rules by which actions are determined.

17. See, for instance, Abram (1997) for a history of how humans have attempted to communicate with their sensory environments.

18. If one takes this too far, however, one may enter into an infinite regress of expectations. This could possibly lead to paranoia or delusion, as evidenced by famous chess champion Bobby Fisher.

19. Luhmann notes: "Whatever contributes to solving the problem of double contingency belongs in the system" (1995, p. 126). Luhmann contrasts the meta-perspective compelled by this experience to that of "autistic behavior." Stephan Fuchs (2001) states that social encounters are often just the perception of being perceived, and the difference this makes is the encounter.

20. This theme is developed by Bateson (1972) who distinguishes between information and meta-information. The latter is roughly synonymous with "utterance" in Luhmann's theory. Meta-information is the information about the relationship that one is attempting to establish with the audience while communicating. This takes the form of an implied command. For interactions involving physical co-presence, much of this information is conveyed via body language. See also Watzlawick, Bavelas, Jackson, and O'Hanlon (1967), who formulates this distinction as one between digital and analogic communication.

21. For a review, see Dirk Baeker's "Systemic Theories of Communication" (2011).

22. Luhmann describes the relation between mind and communication as one of *interpenetration*, or *structural coupling*. The concept of interpenetration is borrowed from Parsons, and refers to a process by which "both systems enable each other by introducing their own already-constituted complexity into each other. (1995, p. 213). The concept of structural coupling is used in later works (after *Social Systems*) and is borrowed from the biologist Humberto Maturana. Structural coupling occurs "whenever there is a history of recurrent interactions leading to the structural congruence between two (or more) systems (Maturana & Varela, 1998, p. 75).

23. Luhmann describes the relation between mind and communication as one of *interpenetration*, or *structural coupling*. The concept of interpenetration is borrowed from Parsons, and refers to a process by which "both systems enable each other by introducing their own already-constituted complexity into each other" (1995, p. 213). The concept of structural coupling is used in later works (after *Social Systems*) and is borrowed from the biologist Humberto Maturana. Structural coupling occurs "whenever there is a history of recurrent interactions leading to the structural congruence between two (or more) systems" (Maturana & Varela 1998, p. 75).

24. Heinz von Foerster concludes that "the environment contains no information; the environment is as it is" (1984).

25. For these systems, however, not all meaningful events are informative. Repeated information, for instance, is by definition uninformative, on the condition that its repetition is known with certainty.

26. Shannon's formulas for entropy and information are, respectively: $H = -\text{pilogpi}$ and $R = H(x) - Hy(x)$. Redundancy is one minus the entropy value.

27. Technically, information is the reduction of statistical entropy, and is therefore sometimes referred to as negentropy (Brillouin, 1964). Because unexpected messages convey greater information value, I will use "information" and "uncertainty" synonymously unless otherwise specified.

28. Shannon famously stated that the "semantic aspects of communication are irrelevant to the engineering problem" (Shannon and Weaver, 1949, p. 3).

29. Elsewhere Leydesdorff proposes that "*meaning can be defined as the operation which is generated when a system of reference is specified*" (2006, p. 51).

30. To refer is closely related to the operation of observation. To observe means to draw a distinction in order to indicate one side of a distinction. Observation occurs when this indication is made with the purpose of acquiring information about that which is distinguished. Reference is a weak form of observation, which does not necessarily entail the processing of information.

31. Moreover, as Luhmann reminds us, systems can only communicate *about* their environments, not *with* their environments (Luhmann, 1995, p. 410). My thoughts are always my own, not yours, and any pain that you may feel is yours, never mine.

32. The mathematical biologist Rosen (1985) coined the term "anticipatory systems" to designate those organisms that not only react to environmental stimuli, but also posit models that enable them to anticipate consequences of their actions in order to guide their re-actions in the present. Anticipation can be regarded as a recursive model of the system's modeling, or a meta-model. Anticipation necessarily entails the conjoined capacity for hetero and self-reference. In other words, the system must be capable of generating a model of its "self" in order to anticipate its next state, both in response to possible environmental stimuli and its own activity.

33. A useful typology is provided by Fenzl and Hofkirchner (1997), who distinguish between self-organizing systems capable of "reflection" and possessing microstructure (e.g., a snow-flake), self-reproducing ("autopoietic") systems capable of "representation" with a mesostate (e.g., all living organisms), and self-recreating systems capable of anticipation and decision making.

34. The *signification of a sign* is something other than the sign that the sign potentially produces a response to. A caricature is a sign of an image. Images connote structural properties, but concepts connote functional properties. Images help us *describe*; concepts help us *explain*.

35. Likewise with honeybees, which do not seem to be using "signals" in this sense. However sophisticated a honeybee may be in delivering coded directions to the location where it has discovered nectar, the second honeybee receiving this information cannot then communicate these coordinates to third parties.

36. There is no simple way of expressing negation or the word "not" in body language. For instance, to communicate the intention of "I will *not* fight you" would require expressing the concept of fighting by demonstration (e.g., showing one's fangs), an ambiguous gesture which could easily convey its opposite intention! It is possible to express the imperative "don't," as in "don't come near or I will eat you," but the imperative "don't" is far from the negative indicative sense of "not." Gregory Bateson (1972) proposes that the communication of the negative "not" evolved from playful behavior, and conversely, that playful behavior evolved from the necessity of communicating this negation. Similarly, Sayre (1976) proposes that human language could have only emerged from contexts freed of necessity, that is, contexts of playful, idle chatter.

37. In addition to and presupposing language, *media of dissemination* (aka mass media) such as writing have developed, which have extended the spatial and temporal range of communication; finally, presupposing media of dissemination, *communication media* (aka symbolically generalized communication media, or success media), such as love, truth, money, and power, serve to motivate the acceptance of a communication by making its selection criterion (its "intent") intelligible. These media relate to one another as a nested hierarchy of the form: (language → (mass media → (success media))).

38. Searle reasons that "Language is the basic social institution in the sense that all others presuppose language, but language does not pre-suppose the others: you can have language without money and marriage, but not the converse" (1995, p. 60).

39. Chomsky postulates the existence of innate linguistic rules (syntactic structures) internalized in the minds of all potential language users, but provides no account of the evolutionary origin of these structures. A full exposition of this theory and of Chomsky's theory of linguistics is outside the scope of this paper.

40. One might also say "structures of anticipation." For Parsons action "does not consist only of *ad hoc* [improvised] 'responses' to a particular situational 'stimuli' but [rather] the actor develops a *system* of 'expectations' relative to the various objects of the situation" (1951, p. 5). For this reason, Parsons speaks of an integration of action expectations, or orientations. Parsons distinguishes between passive expectations, which he calls "anticipations," and expectations which are actively pursued, which he calls "goals" (1951, p. 8). In contrast to this usage, however, I use "anticipation" and "expectation" interchangeably.

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