

opinion, such questions as how concepts are related to reality as ultimately sterile. Bohr once replied to this very question: "We are suspended in language in such a way that we cannot say what is up and what is down. The word 'reality' is also a word, a word which we must learn to use correctly" (French and Kennedy 1985, 302).

NOTE

1. Cf. this surprising passage in a letter by Guillaume Mallarmé (1989) to his friend Henri Cazalis: "Gracious me! Madame Ramaniet ate asparagus yesterday! 'How can you tell?' 'From the pot she put outside her window.' . . . that ability to see clues in the most meaningless things—and such things, great gods!"

Peirce and Communication

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FROM EDWARD C. MOORE, one of the editors of the *Writings of Charles S. Peirce*, we learn that if the publishable works of Charles Sanders Peirce were collected, the set would run to something like 104 volumes. I am no expert even in what has been published and is easily accessible. But, happily, Peirce was of the opinion that *all* signs are fragments of a larger, still undeciphered text—and, just the same, await their interpretation here and now. In this I detect some slight encouragement.

A second reservation I have is related to the topic that has been posed to me: as the subject index in editions of his work reveals, Peirce did not often speak of communication. That is surprising in the case of an author who was convinced of the semeiotic structure of thought (CP 5.421) and who asserted "that every logical evolution of thought should be dialogic" (CP 4.551). But, even in this last passage, Peirce was not talking about the relation between a speaker who uses an expression and an addressee who understands the expression. Rather, what he said there is that every sign requires two quasi-minds—a "Quasi-utterer and a Quasi-interpreter; and although these two are one (i.e. are one mind) in the sign itself, they must nevertheless be distinct. In the sign they are, so to say, welded." Peirce spoke of quasi-minds here, because he wanted to conceptualize the interpretation of signs abstractly, detached from the model of linguistic communication between a speaker and a hearer, detached even from the basis of the human brain. Today this makes us think of the operations of artificial intelligence, or of the mode of functioning of the genetic code; Peirce had crystals and the work of bees in mind.

Peirce wished to conceptualize the process of communication so abstractly that the intersubjective relationship between speaker and hearer is able to disappear, and the relationship

between sign and interpreter can be absorbed without a trace into the so-called interpretant-relation. The "interpretant" is at first understood as the picture or impression that the sign calls forth in the mind of an interpreter. This intention explains the heavy sigh with which Peirce accompanied his definition of the sign in a letter to Lady Welby (from December 23, 1908), since this definition might well suggest a concretistic fallacy:

I define a sign as anything which is so determined by something else, called its Object, and so determines an effect upon a person, which effect I call its Interpretant, that the latter thereby is mediately determined by the former. My insertion of "upon a person" is a sop to Cerberus, because I despair of making my own broader conception understood [PW 80-81].

In another letter (from March 14, 1909), Peirce cautioned against limiting the analysis to the repertoire of signs and the grammar of human language or, worse, to *one* language. The title "Speculative Grammar" announces the ambitious project of a *universal* semeiotic ranging over the universe of all signs. The concept of the sign ought to be so conceived that it is equally appropriate for natural and conventional signs, for pre-linguistic and linguistic symbols, for sentences and texts, as well as for speech acts and dialogues.

A semeiotic of this sort begins with the elementary sign. Yet, in the properties, functions, interpretive possibilities, and transformation rules of the single sign, this semeiotic should already bring features to the fore which are also constitutive for a full-fledged language and its use. A linguistic approach (for example, Saussure's structuralism) does not suffice for this. In contrast, the perspective of the logician which Peirce took up has the advantage of examining expressions from the point of view of their possible truth *and*, at the same time, from the point of view of their communicability. Thus, from the perspective of its capacity for truth, an assertoric sentence stands in an epistemic relation to something in the world: it represents a state of affairs. At the same time, from the perspective of its employment in a communicative act, it stands in a relation to a possible interpretation by a language user: it is suitable for the transmission of information. What, at the level of grammatical language, is thus

differentiated into the epistemic relation to the world and the communicative relation to the interpreter Peirce already attended to on the level of the elementary sign when he distinguished two relations: "standing for . . ." and "standing to. . ." He integrated the representative function of the sign (standing for . . .) with its interpretability (standing to . . .) in such a way that the sign determines its interpretant according to the relation in which the sign itself stands to the object it represents. Everything that brings something else (its interpretant) to refer to an object in the way that it itself refers to the object counts as a sign (CP 2.303). A sign is only able to represent an object thanks to this three-placed relation.

What is thereby represented at first remains unspecified; in any event, we cannot assume from the start that the "object" (*Objekt*) will be an identifiable thing (*I*) or even a state of affairs. We must not lose sight of the fact, however, that Peirce did not explicate the representative function of the sign through the two-placed relation of standing for something. In order to fulfill its representative function, the sign must at the same time be interpretable: "A thing cannot stand for something without standing to something for something" (W 1:466). This is already to be found in the seventh Lowell Lecture of 1866. The sign cannot establish the epistemic relation to something in the world if it is not at the same time directed toward an interpreting mind—that is, if it *could* not be employed communicatively. Without communicability there is no representation—and vice versa. Even though Peirce was interested in semeiotic problems primarily from an epistemological point of view, he set the fundamental conceptual switches in such a way that the epistemic relation of the sign to something in the world cannot be isolated from the communicative relation to a *possible* interpreter. At the same time, however, Peirce insisted on the anonymization of the interpretative process, from which he eliminated the interpreter. What remains after this abstraction are currents of depersonalized sequences of signs, in which every sign refers as the interpreter to the previous sign, and refers as the interpretandum to the following sign. To be sure, these linkages are established only through the mediation of a mind in which signs are able to

call forth interpretations: "intelligent consciousness must enter into the series" (CP 2.303). Still, this *mind* remains anonymous, because it consists of nothing other than that three-placed relation of representation in general; it is absorbed by the structure of the sign.

In terms of theoretical strategy, this abstract conceptualization has the merit that it does not restrict semeiosis to linguistic communication from the start, but remains open for further specifications. Nonetheless, the question arises whether Peirce's concept of the sign really does leave open the specifications that are required for the communicative level of propositionally organized language, or whether it does not prejudice them in a certain way. A methodological consideration can help us along here. Peirce pursued something like the logical genesis of sign processes. In doing so, he began with the complex structures of language that are accessible to us, in order to feel his way toward the more elementary forms by means of privative determinations—Peirce speaks of "degeneration." In this procedure, one may abstract only from those aspects of a given higher semeiotic level for which it is not possible to identify more primitive predecessors or lower semeiotic levels. Peirce seemed to regard the intersubjective relationship between a speaker and a hearer, and the corresponding participant perspectives of the first and second person (in contrast to the perspective of an uninvolved third person), as such aspects that may be disregarded. He seemed to believe that the fundamental semeiotic structure can be completely defined without recourse to forms of intersubjectivity, however elementary. In any event, he generally suspended his logical-semeiotic analyses at the point where speaker-hearer perspectives come into play.¹

Like George Herbert Mead later on, the *young* Peirce was clearly of a different opinion. He attached virtually fundamental importance to the attitudes of the first, second, and third persons. On the one hand, the corresponding perspectives are equally fundamental, that is, none can be reduced to the others; on the other, they can be transformed into one another. The primitive expressions "I," "thou," and "it" thus form a system of relations: "Though they cannot be expressed in terms of each other, yet they have a relation to each other, for 'Thou' is an 'It'

in which there is another 'I.' 'I' looks in, 'It' looks out, 'Thou' looks through, out and in again" (W 1:45), noted the twenty-four-year-old Peirce. And two years later Peirce connected his speculations about a future communitarian age, which is supposed to supersede the tendencies to reification of the present materialistic age, with the name "Tuism," thus indicating the importance of attitude toward a second person for purposes of social integration.² In 1861 Peirce planned to write a book about "I, It, and Thou" as "Elements of Thought." In the first Harvard Lectures of 1865 he attempted to introduce the concept of the sign in connection with the system of personal pronouns; not unreasonably, the interpretant relation, and thus the power of the sign to influence an interpreting mind, were explicated by means of the attitude of the second person (W 1:174). But after that, if I am not mistaken, the system of personal pronouns completely lost its significance for the foundations of semeiotic.

Now, the question that interests me is: What considerations could have brought Peirce to turn away from the intersubjective aspects of the sign process? I want to defend the thesis that it is impossible to give a satisfactory explanation of the interpretant relation of the sign without having recourse to the conditions for reaching an intersubjective agreement, however rudimentary these may be. This remains impossible as long as sign-mediated representation is conceived, as Peirce conceived it, in terms of truth and reality—for these concepts refer in turn to the regulative idea of a community of investigators that operates under ideal conditions. As long as Peirce stuck to his main intuition, that the pragmatic turn cannot be consistently carried through without accepting these or similar counterfactual presuppositions, he could hardly do without an intersubjectively based semeiotic. I would like to explicate this thesis in four steps.

First I want (1) to sketch the critique of the philosophy of consciousness that Peirce carried out in the 1860s and 1870s, as well as (2) to recall the two resulting problems that emerge from the semeiotic transformation of Kantian epistemology. The solutions Peirce proposed depend on (3) the premise of cumulative learning processes, which admits a weak intersubjectivistic reading. But instead of this interpretation, Peirce preferred a strong, or cosmological, one. He developed this version in terms of (4) a

theory of natural evolution which has problematic consequences for semeiotic and leads to a Platonistic concept of the person which cannot be brought into harmony with our best intuitions.

(1) A third world of symbolic forms which mediates between the inner and the outer worlds (W 1:168) disclosed itself to the young Peirce along the dual path of religious experience and logical investigation: "Religion . . . is neither something within us nor yet altogether without us—but bears rather a third relation to us, namely, that of existing in our communion with another being" (W 1:108). Whereas for Peirce the Transcendentalist the forcelessly unifying power of communication stood in the foreground, for Peirce the logician something else provided the decisive factor: namely, the idea that "every thought is an unuttered word" (W 1:169).

Peirce, prior to Frege and Husserl, carried through a devastating critique of psychologism in his first Harvard Lecture. Logic is not a matter of mental processes or facts of unconsciousness. Rather, it analyzes general sign operations and properties that are actualized in the symbolic expressions; logical characters "belong to what is written on the board at least as much as to our thought" (W 1:165). But unlike Frege and Husserl, Peirce did not arrive at the conclusions of some sort of meaning-Platonism. Every symbol of itself refers to possible interpretations, that is, to infinitely many reproductions of its meaning *over time*. Like all signs, symbols are what they mean only in relation to other signs. And these relations can in turn be actualized only with the aid of operations that for their part extend in time. The transformation of symbolic expressions requires time. For this reason the world of symbolic forms stands in an *internal* relation to time. From Hegel, Peirce had learned "that the thought descends into time." In his debate with Kant, however, Peirce did not engage this theme from the perspective of a temporalization of mind. Instead, he was concerned with the way the flowing stream of consciousness is stabilized in the form of a symbolically embodied mind.

Under the heading "On Time and Thought," Peirce considered how the flow of our ideas can take on the continuity and the connectedness of feelings, wishes, and perceptions that are in contact with each other. A mere succession of distinct ideas,

each of which is absolutely present at a different time, cannot provide an explanation for the way ideas can be determined by previous ideas—that is, the way one idea can be transformed into the next one according to a rule. Ideas that at one point are past must still be capable of being held fast in the mind, as it were, and of existing together and being linked up with the ideas that come after them. The semeiotic interpretation of consciousness offers the key to explaining this reproduction of ideas which makes their recognition possible.³ If cognitions are signs, then replicas can be generated from past cognitions and linked up with present and future ones: "thus the intellectual character of beliefs at least is dependent upon the capability of the endless translation of sign into sign" (W 3:77). For their power to grant continuity, signs are indebted to the temporal reference that, with an object relation to the past and an interpretant relation to the future, is inherent in them.

With his semantic transformation of Kantian epistemology (Apel 1981), Peirce cleared the way for a critique of the philosophy of consciousness that brings about a specifically pragmatic turn. The architectonic of the philosophy of consciousness had been defined by the subject-object relation, interpreted as mental representation. Within this traditional paradigm of representative thinking, the objective world is conceived as the totality of mentally representable objects, while the subjective world is conceived as the sphere of our mental representations of possible objects. Access to this internal sphere is gained via the epistemic self-relation of the representing subject (or by self-consciousness), that is, by the mental representation of our representations of objects. Peirce undermined this architectonic by giving a semeiotic reinterpretation to the fundamental concept of "representation": the two-placed relation of mental representation (*Vorstellung*) is made into the three-placed relation of symbolic representation (*Darstellung*).

In explicit form, symbolic representation appears as a proposition representing a state of affairs. This only seems to replace the *psychological* perspective with a *semantic* perspective, as if the place of the subject-object relation were taken by the relation between language and the world. But a first complication already emerges from the propositional structure of what the

sentence-sign stands for. A simple predicative sentence does not simply stand for an entity; it indeed refers to a singular object in the world, but it attributes to this object a property that can be expressed only in a predicate or a general concept. And it does this in such a way that it is not immediately clear whether this universal belongs more properly in the world or to language.

Another complication is more interesting. It arises from the fact that the sentence-sign not only has a relation to something in the world, but at the same time refers to an interpretative community. A fact is represented in terms of an assertoric sentence that can be true or false; the act of representation, however, is performed in terms of an assertion with which a speaker raises a contestable truth-claim for an addressee. As early as the Ninth Lowell Lecture of 1866, Peirce emphasized this *pragmatic aspect* of representation: "a symbol may be intended to refer to an interpretant or to have *force*. . . . It is intended . . . to inculcate this statement into the interpretant" (W 1:477). An assertion receives illocutionary force through the fact that a speaker offers—at least implicitly—a reason or an argument by means of which he wants to induce the addressee to give assent. Peirce will later say that every proposition is the rudimentary form of an argument (CP 2.344). According to the paradigm of the philosophy of consciousness, the truth of a judgment is based on the subject's certainty that the mental representation corresponds to the object. After the pragmatic turn, however, the truth of a sentence-sign must be measured both against its object relation and against the reasons that could be accepted for its validity by an interpretative community. Thus, in the new paradigm the role of the subject is assumed not by language *per se*, but by communication among those who demand explanations from each other in order to reach reasonable agreement about something in the world. The place of subjectivity is taken over by an intersubjective practice of reaching initial understanding; this practice emits from itself infinite sequences of signs and interpretations. Peirce developed this conception through a penetrating critique of the paradigm of the philosophy of consciousness. He was guided therein by the following *six* considerations:

- The methodological critique is directed against an *introspection* that relies on the private evidence of so-called facts of con-

sciousness, without being able to present verifiable criteria for discriminating mere appearance from reality. In contrast, symbolic expressions and complexes of signs are generally accessible facts whose interpretation is open to public criticism, so that it is not necessary to appeal to a particular individual in place of the community of investigators as the final arbiter of [correct] judgment.

- The epistemological critique is directed against an *intuitionism* that claims that our judgments are constructed from immediately given and absolutely certain ideas or sense-data. The truth is that no idea, no matter how elementary, comes into contact with its object without semeiotic mediation. In an experiential process which is fundamentally discursive, there is no absolute beginning. Whether consciously or not, all cognitions are determined logically by previous cognitions.
- From the above there emerges the critique of any theory that confers a *foundationalist* distinction on *self-consciousness*. The truth is that we draw only inferences about the inner world of mental states and psychic events from our knowledge of external facts. Only when an opinion that is at first held to be true turns out to be merely "subjective" does the experience of error force the hypothesis of a "self" upon us.
- The critique of Kant's construction of a "thing-in-itself" is directed against a kind of *phenomenalism* that is led astray by the mirror-model of representative thinking: into assuming that reality, lying hidden *behind* appearances, has, like the mirror itself, a rear side that evades reflection. The truth of the matter is that reality does impose restrictions upon our knowledge, but only in such a way that it rejects false opinions as our interpretations founder upon it. Yet, it does not follow from this that reality could fundamentally elude better interpretations. Rather, what is real is everything that can become the content of true representations, and nothing else.
- Further, doubt about Cartesian doubt is directed against the *conception* of a *worldless subject* standing over and against the world as a whole. The individual consciousness does not form a monad encapsulated in itself, which could put into brackets the totality of beings just by distancing itself *from everything* through a supposedly radical doubt. Rather, every subject always finds itself already within the context of a world that is familiar to it. The subject cannot by fiat problematize this massive background of beliefs as a whole. An empty, abstract "paper doubt" cannot undermine life-world certainties; on the

other hand, nothing is in principle immune to real nagging doubt.⁴

- Finally, Peirce was opposed to the *privileging* of the *knowing subject* above the acting subject. All our beliefs are interwoven with our practices: "A belief which will not be acted upon ceases to be a belief" (W 3:77). Thus, mind is situated and finds its embodiment simultaneously in the symbolic media of language and of *practice*. Any thought articulated in an utterance is recoupled with action and experience via the belief held by an interpreting mind. Every link in this chain exhibits the three-placed structure that explains the representative function of signs—and to this extent each is itself something of the same sort as a sign.

(2) Even the semeiotically transformed philosophy of consciousness does not, however, escape the old epistemological queries. How is objectivity of experience supposed to be possible if the semeiotically embodied mind remains caught in the spell of discourses and practices and bound by the chains of signs? How can we do justice to our intuitive understanding of reality as something independent of us if the truth of judgments and statements is mired in the rhetorical pro-and-con of argumentation without end? True, Peirce destroyed two dogmas: the myth of the given, and the illusion of truth as the certainty of our mental representations. But then he found himself confronted with the question whether he had not simply traded the dogmas of received empiricism for a second-order empiricism—an holistically renewed empiricism on the level of sign systems, behind which we are no more able to reach than behind "first principles" or "ultimate facts." Peirce suggested three innovative answers:

- (a) the theory of pre-symbolic signs;
- (b) the doctrine of synthetic inferences; and
- (c) the regulative idea of a final consensus (ultimate agreement or final opinion).

(a) How is objectivity of experience supposed to be possible? On the one hand, the contact between signs and reality must be established via experience, just as before; on the other, experience is absorbed within a continuum of sign-mediated processes. Peirce thus had to show how strings of signs, which can be

endlessly continued through logical operations of inference, are still able to open themselves up osmotically to reality. He had to demonstrate the possibility of *anchoring* strings of signs in reality. Along the path of a logical genesis of perceptual judgments, Peirce, like the late Husserl in *Experience and Judgment*, had to descend into the realm of pre-predicative experience.

The starting point for this descent is provided by the structure of the simple predicative sentence. The proposition is composed of two elements. One of these, the subject expression, establishes the relation to the object of reference, while the other contains the predicative determination of the object. From this, Peirce developed the distinction between the concept of "existence" and the concept of "reality." The two-placed relation between the referential term and its object is an existential relation which does indeed reflect the "outward clash" of a confrontation with reality, but does not mirror reality itself. For the real state of affairs is represented only by the sentence as a whole, including the predicate expression.

Drawing the well-known distinction between symbol, index, and icon was the first move, then, in the game of a logical genesis of the assertoric sentence. Below the level of complete sentences and propositional structures—that is, those representations that are capable of being true or false—there are simple signs which stand either in a relation of denotation or in a relation of similarity to corresponding aspects of reality. From this, Peirce inferred that the subject and predicate expressions, which must be joined together in sentences in order to fulfill an explicit propositional function, are based upon a genetically more primitive layer of index signs and icons, each of which is of itself—that is, independently of any propositional structure—capable of taking up a relation to an object and finding an interpretant (see Oehler 1979a, 9ff.). While terms, propositions, and arguments count as "symbols," the next lower level consists of non-symbolic but still conventional signs.

After this first step in the archaeology of linguistic symbols, the conventional signs are complemented by three classes of non-conventional or natural signs. Whereas symbols as well as independently appearing indices and iconic representations such as diagrams still stand in conventional relations to their

objects, natural symptoms and analogues rely upon a causal nexus or on pre-existing similarities in form.⁵ Later on, Peirce further differentiated these classes of signs, but he never arrived at a conclusive system. That fits the overall intention to demonstrate that the roots of the semeiotic family tree of predicative sentences branch off endlessly and extend down to a depth where, for the time being, they finally slip out of the sight of an analysis proceeding to ever more primitive signs. In the same way, then, experiential processes can root in preconscious layers of sense and stimuli and feelings, without losing the discursive character of a sign-mediated inferential process.

(b) Of course, these considerations are able to support a claim to objectivity for experience only if the infinitesimal initial phases of our pre-predicative experience elude conscious control, that is, explicitly discursive processing: in a certain sense the "percepts" force themselves on us. But these elementary information inputs that are vested with sensory evidence are no less fallible than the perceptual judgments that are obtained from them (Hookway 1985, 149ff.). What Peirce called "percepts" cannot take on the role of "first premises." Even they depend upon those limiting cases of abductive inference which strike us in the form of lightning insights, and which for that reason merely conceal their fallibility from us: "If the percept or perceptual judgment were of a nature entirely unrelated to abduction, one would expect that the percept would be entirely free from any characters that are proper interpretations, while it can hardly fail to have such characters" (CP 5.184).

Certainly, such percepts and perceptual judgments, which run again and again through the channels of practice and become habitualized, are capable of gelling together with theoretical background suppositions and moral principles to become an unquestioned context of life-world certainties (common-sense beliefs). But none of these habitualized beliefs is immune to being problematized. That is, only in the case of misfires, or negative experiences, does the contact to reality furnish a good criterion for the evaluation of the opinions that are invested in plans of action.⁶

If, however, the objectivity of experience cannot be made secure with an indubitable source of information, at least the

mode of information processing will guarantee the truth. Peirce regarded the rules of inferential reasoning as the core of such a procedural rationality. As is well known, he reconstructed this *logica utens* in the form of a doctrine of synthetic inferences. I cannot pursue that here (see Hookway 1985, 208ff.). One reservation is nonetheless important. The circular process of hypothesis formation, inductive generalization, deduction, and renewed hypothesis formation will promise a self-correcting processing of experiences and a cumulative growth of knowledge only as long as abduction is handled correctly. The abductive form of inference is the real knowledge-amplifying element, but at the same time it is far from yielding *necessary* conclusions. In the case of induction, Peirce believed that probability-theoretical considerations could be used to show that we can rely on it "in the long run." Yet, only the rational formation of hypotheses could close the circle of inductive generalization and deduction. So, the question of how the objectivity of experience is possible gets posed again.

How can we explain the quasi-transcendental fact of universal learning processes? Either the doctrine of synthetic inferences needs an objective foundation in reality, so that it could be shown how nature itself directs our formation of hypotheses; the late Peirce would come back to this alternative. Or the burden of proof, which experience—including the experience of practical failure—and inferential reasoning alone cannot sustain, has to be redistributed and *relocated* upon another link in the chain of the semeiotic process: upon argumentation. Indeed, Peirce had always conceived discussion as the "proofstone of truth" (Kant): "Upon most subjects at least sufficient experience, *discussion* and reasoning will bring men to an agreement" (W 3:8). He did not conceive of discussion as a contest (CP 5.406) in which one side seeks to overpower the other rhetorically; discussion is the cooperative quest for truth by means of the public exchange of arguments. Only thus is it able to serve as a "test of dialectical examination" (CP 5.392).

(c) At first, in "The Fixation of Belief," Peirce gave an *historical* grounding for the thesis that procedural rationality, which is effective in everyday practices and elaborated in science, is able to develop only under the conditions of rational discourse: in

modernity, the rational authority of discursive learning guided by experience has asserted itself against the power of habits, against thought control, and against wish-fulfilling *a priori* doctrines. But an explanation going beyond such historical suggestions is needed for the proposition that the inferential processing of information would not succeed without the public and unforced exchange of arguments. Peirce again used the tripartite structure of the sign itself to explain why the sign-mediated cognitive process also requires these conditions of operation.

A sign can fulfill its representative function only if, along with the relation to the objective world of entities, it simultaneously establishes a relation to the intersubjective world of interpreters. The objectivity of experience is not possible without the intersubjectivity involved in coming to initial understanding. This argument can be reconstructed in four stages.

- In a distant analogy to Wittgenstein's private-language argument, Peirce emphasized the internal connection between private experience and public communication. A private aspect is always attached to experience, because everyone has privileged access to his own ideas (*Erlebnissen*). At the same time, the sign character of these ideas points beyond the borders of subjectivity. By representing something, a sign expresses something general; therefore, it could not find an interpretant that would remain the exclusive possession of an individual mind. We all become aware of this supra-subjective partnership in the interpretant at the moment when we confront the opinion of someone else and an error becomes apparent to us in a flash.

- This confrontation of opinions must take on the rational form of argumentation, because this form of communication merely makes explicit what is already implicit in every proposition. That is, the illocutionary force of the act of assertion indicates that the speaker invites the addressee to support his statement with an argument if necessary (Peirce said: to develop an argument from the proposition). So, rational discourse, in which a proponent defends validity claims against the objections of opponents, is just the most reflexively developed form of sign processes.

- Because the rules of synthetic inference cannot of themselves generate compelling results, and thus cannot be repro-

duced on the semantic level as algorithms, the argumentative processing of information has to assume the form of an intersubjective practice. Certainly, in argumentation the yes-and-no positions of the participants are supposed to be regulated by good reasons. The problem is that what may count as a "good reason" in any case has to be decided within argumentation itself. There is no higher court of appeal than the agreement of others which is brought about within discourse and, in this respect, is rationally motivated.

- To be sure, the objectivity of experience cannot be made dependent upon the agreement—no matter how rational—of a contingent number of participants, that is, contingent agreement within any particular group. Better arguments, which would refute what is here and now held to be true by you and me, might emerge in different contexts or on the basis of further experiences. With the concept of reality, to which every representation necessarily refers, we presuppose something transcendent. As long as we move within a particular linguistic community or form of life, this transcending relation cannot be supplanted by the rational acceptability of an argument. Since we cannot break out of the sphere of language and argumentation altogether, we can establish the reference to reality—which is not equivalent to "existence"—only by projecting a "transcendence from within." This end is served by the counterfactual concept of a "final opinion" or a consensus reached under ideal conditions. Peirce made the rational acceptability of an assertion, and thus its truth as well, depend upon an agreement that could be achieved under the conditions for communication among a community of investigators that is extended to ideal limits in social space and historical time. If we understand reality as the totality of all assertions that are true in this sense, then we are able to do justice to its transcendence without having to surrender the internal connection between the objectivity of experience and the intersubjectivity of reaching initial understanding:

The real, then, is that which, sooner or later, information and reasoning would finally result in, and which is therefore independent of the vagaries of me and you. Thus, the very origin of the

conception of reality shows that this conception essentially involves the notion of a *Community*, without definite limits, and capable of a definite increase of knowledge [CP 5.311].

(3) Out of this semeiotic model of knowledge there emerges an image of a rationally directed process of interpretation in which "men and words reciprocally educate each other" (W 1:497). The semeiotically constituted world of human beings reproduces itself and develops through the medium of signs. At one pole, experience and purposive action secure a contact with reality that is sign-mediated: "The elements of every concept enter into logical thought at the gate of perception and make their exit at the gate of purposive action" (CP 5.212). At the other pole, the exchange of arguments takes place with regard to and in anticipation of the counterfactually presupposed conditions of an ideal communication. At the former pole, learning processes start as more or less quasi-natural events according to the rules of synthetic inference; at the latter, these processes have become reflexive. They come under the direction of a conscious community of investigators that supervises itself. This community is committed to a logic "whose essential end is to test the truth by reasons" (W 1:329). Experience and argumentation stand to each other in the tension between "private" and "public." Correspondingly, everyday action and argumentation are caught up in the tension between the certainty of common sense and the awareness of radical fallibility.⁷

Both common sense and science operate with the supposition of a reality that is independent of us. In our practices, however, what we take to be unavoidable and indubitable has the status of an acritical certainty, although it is by no means immune *a priori* from objections. In the realm of argumentatively tested knowledge, we are, on the other hand, conscious of the fallibility of every insight. In order to believe that we are capable of the truth nonetheless, we need the compensatory reference point provided by the "final opinion." Only those assertions are true which would always be reaffirmed within the horizon of a community without definite limits (CP 5.311).

From his semeiotic model of knowledge, reality, and truth, consequences emerge for the very concepts of the sign and interpretation. Until now we have proceeded from the position

that, in the mind of an interpreter, the sign has the effect of reproducing, as it were, the object that is represented by the sign. Strictly interpreted, this would mean

that a representation is something which produces another representation of the same object, and in this second or interpreting representation the first representation is represented as representing a certain object. This second representation must itself have an interpreting representation and so on ad infinitum, the whole process of representation never reaches a completion [W 3:64f.].

Yet, such an infinite regress would come about only if the process of interpretation were to circle within itself, as it were, without continual stimulation from outside, and without discursive processing. But this description is adequate only for that initial phase, in which, even before any experience, the interpretant relates to that "immediate object" which inheres, so to speak, in the sign as its meaning. But the actual employment of the sign in a particular situation requires an interpretant which refers in view of collateral experience to the "dynamic object." This object is external to the sign and demands of the interpreter both sensory and practical experience, knowledge of the context, and discursive processing of information. Nor is the interpretation of a sign therein exhausted; because the interpretation aims toward an explicit representation, that is, one that is capable of being true, it anticipates the possibility of a "final interpretant." The latter refers to the object as it would be represented in light of an ideal consensus—that is, to the "final object." Only an orientation toward the truth does justice to the role of symbolic expressions which "represent" something, in the sense that interpreters can make use of them *in order to reach an agreement with one another about something in the world*. Understanding, reaching agreement, and knowledge refer reciprocally to each other (Saván 1977, 179ff.; Ransdell 1977, 157ff.).

The interpretation of signs is interwoven with the representation of reality; for this reason, the stream of interpretation takes on a direction. The original text of nature does not go down in the contingent flows of significant. The telos of a *complete* representation of reality is already inscribed in the struc-

ture of the first sign. Nonetheless, one consequence of this disturbed Peirce from the start: because of their semeiotic constitution, learning processes are ultimately unable to break away from the circle of the signs given interpretations by us. In the end, the limits of our language remain the limits of the world.

This semeiotic circle closes itself off all the more inexorably when Peirce's *logical* analysis of language is extended to include *linguistic* aspects. It then becomes apparent that in limiting cases successful abduction also requires an innovative modification of language itself—a modification, that is, in the perspective from which we look at the world. In extreme cases, we run up against the limits of our comprehensions, and interpretations that labor in vain on resilient problems begin to falter. They get moving again only when, in light of a *new* vocabulary, the familiar facts show themselves in a different light, so that well-worn problems can be posed in a completely new and more promising way. This world-disclosing function of the sign was neglected by Peirce.

This function does not at all imply that the universalizing force of learning processes becomes fragmented whenever it runs up against the borders of a particular language or a concrete form of life. All languages are porous, and every newly disclosed aspect to the world remains an empty projection as long as its fruitfulness does not also *prove its worth* in learning processes that are made possible by the changed perspective on the world. But this interplay between linguistic world-constitution and innerworldly problem-solving only highlights the question that disturbed Peirce.

If the limits of semeiosis means the limits of the world, then both the system of signs and the communication among sign-users acquire an almost transcendental status. The structure of reality itself is not what is mirrored in the structure of the language in which subjects give a representation of the world. Peirce stubbornly fought against such nominalistic consequences his entire life; and it seemed to him that they could be avoided if the semeiotic circle were to encompass not merely the world of subjects capable of speaking and acting but nature as a whole—to encompass nature and not just our interpretation of nature. Only then would the topos of the “book of nature”

shed its metaphorical character, and every natural phenomenon would be transformed—if not into a letter, then at least into a sign that determines the series of its interpretants. Furthermore, the imaginative generation of hypotheses which is at work in all successful abduction would need to bring to consciousness only what has already been “thought out” or prefigured in natural evolution. The synthetic inferences would obtain a *fundamentum in re*. This semeiotic idealism (McCarthy 1984, 395ff.) requires, of course, a naturalization of semeiosis. The price Peirce had to pay for this is the anonymization and depersonalization of the mind in which signs call forth their interpretants. With this metaphysical baggage, however, Peirce overburdens his semeiotic.

I see the great achievement of Peircean semeiotic in its consistent expansion of the world of symbolic forms beyond the limits of linguistic forms of expression. Peirce contrasted our propositionally differentiated language with signal languages. He analyzed those types of intentionally employed indices and icons which attain independence below the level of linguistic signs. He showed how causal symptoms and spontaneous expressive gestures, as well as pre-existing gestalt similarities, can be interpreted on the model of linguistic signs. He thereby opened new realms to semeiotic analysis: for example, the extra-verbal sign world, in the context of which our linguistic communication is embedded; the aesthetic forms of representation, especially the formal repertoire of non-propositional arts; finally, the abductive decoding of a symbolically constructed social world, upon which thrive not only our everyday communicative practices, but also figures like Sherlock Holmes (Sebeok and Umiker-Sebeok 1980) or novels like Eco's *The Name of the Rose*. Our lifeworld, which is semeiotically constructed from the bottom up, forms a network of implicit meaning structures that are sedimented in signs which, though non-linguistic, are nonetheless accessible to interpretation. The situations in which participants to an interaction orient themselves are overflowing with cues, signals, and telltale traces; at the same time, they are marked by stylistic features and expressive characteristics which can be intuitively grasped and reflect the “spirit” of a society, the “tincture” of an age, the “physiognomy” of a city or of a social

class. If Peirce's semeiotic is applied to this sphere, produced by human beings but by no means intentionally *controlled*, then it also becomes clear that the deciphering of implicit meaning structures, that is, the understanding of meaning, is a mode of experience. Experience is communicative experience. Karl-Otto Apel (1984), in particular, has drawn our attention to this.

When we become aware of this wealth of meaning which is not linguistically articulated, but objectivated in pre-symbolic and even pre-conventional signs, then one fact turns out all the more clearly: even if natural signs lack authors who give them meaning, still they have meaning for interpreters who are in command of a language. How should they find their interpreters where there are no interpreters who are able to argue with reasons about their interpretations? Yet, precisely this is assumed by a semeiotic idealism which projects semeiosis into speechless nature. Semeiotic idealism assumes that the process of habit formation that is steered by the interpretation of signs extends far beyond the human world, to include animal, vegetable, and mineral.

(4) Peirce is convinced "that habit is by no means exclusively a mental fact. Empirically, we find that some plants take habits. The stream of water that wears a bed for itself is forming a habit" (CP 5.492). A nature that has developed by means of a semeiotic learning process opens its eyes and becomes a virtual participant in the conversation conducted among humans. This venerable idea obtains its appeal from an image of ourselves entering into conversation with nature and unbinding the tongues of the creatures so far excluded from redemption. To the naturalization of humans there would then correspond a humanization of nature, as Marx thought. But a completely different result emerges out of Peirce's semeiotic reading of this legacy of Judaic and Protestant mysticism, Romantic philosophy of nature, and Transcendentalism: by being absorbed into an all-encompassing nexus of communication, the conversation among humans loses just what is specific to it. This becomes apparent in Peirce's concept of the person (Muio 1984, 169ff.), in which everything that makes a person into an individual is defined purely negatively in terms of its difference from what is general—namely, in terms of the distance separating error from the truth, and divid-

ing the egoist from the community. The individual is the merely subjective and egoistic: "The individual man, since his separate existence is manifested only by ignorance and error, so far as he is anything apart from his fellows, and from what he and they are to be, is only a negation" (CP 5.317).

Thus, the bad legacy of Platonism is reproduced even in the work of the anti-Platonist Peirce. A metaphysical realism in regard to universals that has been set in motion turns the evolution of the cosmos into the bearer of an inexorable tendency toward universalization, a tendency to ever more organization, ever more conscious control. But the consequence I am examining is not explained by metaphysical realism *per se*. Rather, it emerges from the semeiotic conception of the universal only as a sign-mediated representation, together with the interpretation of evolution as a learning process. Both present communication, in which the tendency to universalization asserts itself, only from *one* side: communication is not for the sake of reaching initial understanding between ego and alter-ego about something in the world; rather, interpretation exists only for the sake of the representation and the ever more comprehensive representation of reality. This privileging of the sign's representative relation to the world above the sign's communicative relation to the interpreter causes the interpreter to disappear behind the depersonalized interpretant.

This is made all the more feasible by the fact that the doctrine of synthetic inferences now finds its foundation in the laws of natural evolution. If the learning processes of the human species merely continue, in reflexive form, those of nature, then argumentation, of what one human being has to say to another, and the power of the better argument to convince, both lose the weight and value that are proper to them. The unforced agreement of individuals who hold one another accountable, and who are faced with opinions that differ from person to person, ought to issue from argumentation by virtue of the latter's specific character. But this specific achievement falls victim to the leveling force of a universalism propelling itself inferentially from within reality itself. The multi-vocal character of intersubjectivity becomes an epiphenomenon.

It is interesting that finally Peirce is able to picture one inter-

preter reaching agreement with another only as an emotional fusion of ego and alter-ego: "When I communicate my thoughts and my sentiments to a friend with whom I am in full sympathy, so that my feelings pass into him and I am conscious of what he feels, do I not live in his brain as well as in my own—most literally?" [W 1:498]. In this view, the generalization of a consensus implies not only the dissolution of contradictions, but also the extinguishing of the individuality of those who are able to contradict one another—their disappearance within a collective representation. Like Durkheim, Peirce conceived of the identity of the individual as the mirror-image of the mechanical solidarity of a group: "Thus every man's soul is a special determination of the generic soul of the family, the class, the nation, the race to which he belongs" (W 1:499). George Herbert Mead, pragmatist of the second generation, was the first to conceive language as the medium that socializes communicative actors only insofar as it individualizes them at the same time. The collective identities of the family, class, and nation stand in a complementary relation to the unique identity of the individual; the one may not be absorbed by the other. Ego and alter-ego can agree in an interpretation and share the same idea only insofar as they do not violate the conditions of linguistic communication, and maintain an intersubjective relationship that requires them to orient themselves toward each other as first person is oriented toward second person. That means, however, that each must distinguish himself from the other in the first-person plural from others as third persons. To the extent that the dimension of possible contradiction and difference would close, linguistic communication would contract into a type of communion that no longer needs language as the means of reaching initial understanding.

Peirce once accused the Hegelians—in just the same sense as Feuerbach had—of neglecting the moment of Secondness, which expresses itself in the external resistance of existing objects (CP 8.39ff.). He himself neglected that moment of Secondness that we encounter in communication as contradiction and difference, as the *other* individual's "mind of his own" (*Eigensinn*). To be sure, when it is a matter of a great philoso-

pher, his individuality may also be expressed in his philosophy. As Peirce said: "Each man has his own peculiar character. It enters into all he does. It is in his consciousness and not a mere mechanical trick, and therefore it is . . . a cognition; but as it enters into all his cognition, it is a cognition of *things in general*. It is therefore the man's philosophy, his way of regarding things . . ." (W 1:501)—that constitutes his individuality."

(Translated by William Hohengarten)

NOTES

1. The irrelevance of the intersubjective relationship pointing beyond the structure of the sign-mediated representation is justified thus: "In every assertion we may distinguish a speaker and a listener. The latter, it is true, need have only a problematical existence, as when during a shipwreck an account of the accident is sealed in a bottle and thrown upon the water. The problematical 'listener' may be within the same person as 'the speaker'; as when we mentally register a judgment independent of any registry . . . [;] we may say that in that case the listener becomes identical with the speaker" (CP 2.334). On the other hand, Peirce doubted that a judgment which, as presupposed in this thought experiment, is not structured through the "register" of an internalized proposition, that is, through a sign, would have any logical significance at all. In regard to that it is clear that even the message in a bottle has an addressee, however anonymous.

2. As late as 1891, Peirce defined Tuism as the doctrine "that all thought is addressed to a second person" (Fisch, in W 1:xxix).

3. For a similar approach, cf. Cassirer 1953-1957, vol. I, Introduction and vol. II, first and second part.

4. "It is idle to tell a man to begin by doubting familiar beliefs, unless you say something which shall cause him to really doubt them. It is false to say that reasoning must rest either on first principles or on ultimate facts. For we cannot go behind what we are unable to doubt, but it would be unphilosophical to suppose that any particular fact will never be brought into doubt" (W 3:14).

5. Cf. the introduction of the ten classes of signs in Pape, ed. 1983: 64ff., esp. 121ff.; also Pape 1989.

6. Peirce was long of the opinion "that there is no definite and fixed collection of opinions that are indubitable, but that criticism gradually pushes back each individual's indubitables, modifying the list, yet still leaving him beliefs indubitable for the time being" (CP 5.509).

7. "Full belief is willingness to act upon the proposition in vital crises, opinion is willingness to act upon it in relatively insignificant affairs. But pure science has nothing at all to do with action. . . . The scientific man is not in the least wedded to his conclusions. . . . He stands ready to abandon one or all as soon as experience opposes them. Some of them, I grant, he is in the habit of calling *established truths*; but that merely means propositions to which no competent man today demurs" (CP 1.634).

A Response to Habermas

Klaus Oehler

HABERMAS'S ESSAY CONTAINS four major claims. His first one is that Peirce, after taking an early interest in the intersubjectivity of the speaker-listener relationship, rapidly turned away from intersubjective aspects of sign processes and invariably broke his logical-semeiotic studies off wherever speaker-listener perspectives come into play. The second claim: Peirce could not define the interpretant relation without reference to the conditions of intersubjective communication. His third claim: Peirce preferred to ground the sign processes in cosmology rather than in an intersubjective framework. His fourth claim: the universal realism on which Peirce's theory of natural evolution rests has negative implications for both semeiotic and ethics. I would like to respond to these four claims as follows.

To the first thesis: Habermas's claim is not supported by the texts and must be rejected on historical and philological grounds. Peirce took a deep and lasting interest in the communicative structure of the speaker-listener relation. The most significant and thorough of his many discussions of this topic dates from 1907. The still unpublished MS 318, which contains this discussion, has attracted special attention in recent years because it provides one of the most consistent of all Peirce's expositions of his theory of signs. In this manuscript Peirce carried out a logical-semeiotic analysis of situative speech as it occurs in dialogue. In reconstructing the speech situation, Peirce succeeded in laying bare both the triadic structures of the sign relation and what he refers to as its "essential ingredients": namely, the sign user, the sign expression, and the sign interpreter. The results of this analysis would prove not uninteresting to the author of the theory of communicative action.

What emerges most clearly from MS 318 is that Peirce did not need to draw on the concept of communicative rationality in order to derive the relationality of the sign. Peirce recognized

early in his career that a model based on intersubjective communication was in this respect dispensable, and he abandoned it for two specific reasons: first, from the start his systematic intention was of a scope that transcended the speech situation; and, second, he was skeptical about the degree of generality of the rationality structures embedded in natural languages. Habermas himself cites a passage from a letter of 1909 to Lady Welby, in which Peirce warned of the dangers inherent in restricting semeiotic analysis to the sign mechanisms of language and grammar. Instead, he preferred to anchor his theory of the sign in the doctrine of categories, and it is this anchoring that guarantees its generality. The speech situation and the communicative rationality implicit in it should on no account be made to bear the burden of providing the foundation for semeiotic. They represent merely a peculiarly privileged instance through which the basic structures of the sign can be illustrated.

To the second claim: Habermas's assertion that Peirce could not define the interpretant relation without reference to the conditions of intersubjective communication is correct. But Peirce did not seek these conditions in the counterfactual "final opinion" or in the consensus of the "indefinite community of investigators." These conceptions play a different role in his view. Since the unlimited community of investigators does not exist *in concreto*, it had for Peirce only the status of a regulative idea. Habermas tends to transform this regulative function into a constitutive one and to draw idealistic conclusions from Peirce's "notion of a Community, without definite limits, and capable of a definite increase of knowledge" (CP 5.311), which he endows with a quasi-transcendental character. The texts do not support this reading. We should not forget that in the treatise entitled "Critic of Arguments," Peirce described the transcendental method as occultism (CP 3.422).

The conditions of intersubjective agreement are the three sign relations inherent in the sign itself, "First," "Second," and "Third," or, in the language of the young Peirce, "I," "Thou," and "It." These correspond exactly to Peirce's scheme of categories from which they are derived. The categories Firstness, Secondness, and Thirdness are classes of relations: monadic, dyadic, and triadic. Habermas does not discuss the foundation of

the sign process in the doctrine of Categories, and this oversight leads him to ignore the logic of relations, which is fundamental to that determination of the conditions of intersubjective agreement he is seeking. Peirce thought that the three pragmatic functions of representation, expression, and communication can be adequately analyzed only with the tools of relational logic, because they conform to the logical conditions of the sign structure exhibited in every linguistic act. The question of the general conditions of possible agreement cannot be adequately posed and answered without relational logic. Peirce's later conception of the categories is no longer based on the analysis of the proposition, or on transcendental reflection, but on what he called "Phaneroscopy," a method that is indifferent to the limits of language.

As far as the third claim is concerned, Peirce emphasized the limitations of language. Habermas acknowledges the role Peirce played in broadening our understanding of symbolic forms far beyond the boundaries of language. But Peirce's own view, it should be noted, did not need to be broadened in this respect, since his approach to the sign, early and late, was a broad one, and was never confined by the boundaries of language. The rose itself, not just the name of the rose, is a sign.

Peirce did not think that the intentionality of the sign and semeiosis depend exclusively on acts of consciousness. He regarded rational discourse as a special case of semeiosis. Human acts of cognition differ from other self-referential and self-correcting processes by virtue of their greater degree of self-reference and self-correction. Human beings achieve this superiority through the creation of symbols, which represent and control our habits of action. It follows that communicative reason is only a particularly complex case of semeiosis, characterized through goal-oriented production, use, and interpretation of signs. This in no way changes the fact that signs also figure at lower levels of life, as we know from research in animal communication. Peirce's semeiotic accommodates natural as well as cultural signs, and can thus systematically take account of the position of human beings in culture and nature, which is more than a theory of communicative rationality can achieve. Habermas likes to refer to this systematic integration as a "naturalization"

of semeiosis or even a "semeiotic pragmatism," in order to avoid misunderstandings. Habermas resists an extension of semeiotic into the natural sphere. He makes intentionality depend on consciousness and reason, and divorces it radically from physical processes. This dualism of mind and nature is not merely foreign to Peirce's thought. Peirce opposed it. He would charge Habermas with Cartesianism, and it is difficult to see how Habermas can survive this criticism. Furthermore, Habermas's dichotomization between an intersubjective and a cosmological foundation of the sign process seems to be basically ill-conceived, since the dynamics of both intersubjectivity and natural information processes depend on and develop according to the same logic of the structure of the sign relation.

In his fourth claim, Habermas thinks that Peirce's position has negative implications for both semeiotic and ethics. For semeiotic, because the absorption of human conversation into an all-encompassing, cosmic sign process robs it of its specificity and individuality. But it is Habermas's linguistic apriorism that forces him to this conclusion. His theory of communicative action is founded in a universal pragmatics, according to which certain general validity claims are raised in every act of linguistic communication, the satisfaction of which constitutes what he calls "communicative rationality." Consensus is a function of these universal pragmatic conditions of communication. Reason, as he sees it, is manifested solely in intersubjective communication. This conception of communicative rationality is rooted in the framework of language. But Peirce doubted that language and the rationality structures which it exhibits can ever yield this justification. Just how far he distanced himself from the linguistic paradigm is apparent from his reflections on diagrammatic thinking. The form of diagrammatic-graphic understanding and communication which he used to model not only mathematical and scientific inquiry, but also the basic structure of pre-scientific, everyday thought transcended and relativized the framework of language pragmatics. We do not yet understand the structures on which thought, especially creative thinking, depends. It would be imprudent to make a decision that would prematurely bind us to a linguistic paradigm.

Habermas sees undesirable ethical implications in Peirce's concept of the person. Peirce characterized individuality negatively. Insofar as it lacks universality, the individual is exposed to error and idiosyncrasy. This is not, however, Peirce's main conception of the person, but an almost sacred conception bathed in the glowing, quasi-religious light of the "final opinion." Individuality is error, subjectivity, egoism, privacy, heresy, sin, separation from the *summum bonum* represented by the Catholic Consensus. If Peirce used this almost religious conception of the person to portray humanity under the rule of the "final opinion," then he did no better and no worse than our religions when they talk of an afterlife, or Marx when he painted a glowing picture of the realm of freedom. Peirce did a better job than Marx, since his utopia is at least consistent with the laws of logic, whereas Marx had merely a somewhat simple, pre-industrial pastoral scene in mind. Since every increase in knowledge tends to yield increasing universality, Peirce extrapolated that the limit of this process may be characterized in terms of a speculative universal ideal. The philosopher may well regret that the rule of this "final opinion" will put an end to philosophical discussion and debate. That is indeed regrettable, if not indeed as regrettable as the prospect that heaven will put an end to all sin and transgression. But that remains to be seen.