ORIGINAL ARTICLE

Experience, Purpose, and the Value of Vagueness: On C. S. Peirce's Contribution to the Philosophy of Communication

Mats Bergman

Department of Communication, University of Helsinki, Helsinki, Finland

Recent decades have witnessed a growth of interest in the contribution of pragmatism to the study of communication. Yet, it is striking that C. S. Peirce, the founder of pragmatism and the father of one of the major strands of modern semiotics, is often ignored by communication scholars sympathetic to pragmatism. In this article, I explore some of the reasons for this neglect, and put forward the case for a recovery of some of the philosophical tools that Peircean pragmatism can provide for communication theory.

doi:10.1111/j.1468-2885.2009.01343.x

The popularity of pragmatist approaches, both in their classical shapes and in their later incarnations as neopragmatism, is growing—not only within the confines of academic philosophy but also in diverse fields of more concrete inquiry. Quite naturally, this invigoration has led to increasing attention to the possible contribution of pragmatism to the study of communicational processes and cultures (see, e.g., Craig, 2007; Hardt, 1992; Langsdorf & Smith, 1995a; Perry, 2001; Russill, 2005; Sandbothe, 2001; Simonson, 2001). Yet, the very conceptions of communication inherent in or implied by pragmatist thought have partly been buried under other concerns and have not been sufficiently examined. As Langsdorf and Smith (1995b) correctly observe, "pragmatism to some extent assumes, and to some extent proposes, a philosophy of communication that has scarcely been articulated" (p. 4).

This claim should raise a few eyebrows. After all, do we not have ample evidence of pragmatism's contribution to the philosophical investigation of communication in C. S. Peirce's and Charles Morris's theories of signs, G. H. Mead's dialogic conception of the self, and Richard Rorty's conversationalism? And is not John Dewey, who famously proclaimed that communication is "the most wonderful" of all affairs (LW¹ 1:132 [1925]), a highly influential figure in communication and cultural studies (see, e.g., Carey, 1989; Crick, 2005; Schiller, 1996)?

Yes, of course. But it may still be a fact that the pragmatists' influence in communication theory has been restricted, if not blocked, by the lack of articulation

Corresponding author: Mats Bergman; e-mail: mats.bergman@helsinki.fi

to which Langsdorf and Smith refer.² In particular, it is striking that Peirce, the founder of pragmatism and the father of one of the major strands of modern semiotics, remains a marginal figure in contemporary media and communication studies. This is not to deny the existence of Peircean influences in the field, albeit they are mostly connected to a somewhat distorted semiotic appropriation (in Fiske, 1990; Pietilä, 2005, for instance). Moreover, while a number of philosophers (such as Colapietro, 1995; Habermas, 1995; Liszka, 1996, 2000), semioticians (such as Johansen, 1993a, 1993b), and rhetoricians (such as Braun, 1981; Lyne, 1980, 1982) have in various ways tried to expound Peirce's view of communication, the only allout attempt to introduce Peircean approaches to the field of communication studies seems to be Klaus Bruhn Jensen's social semiotics of mass communication (Jensen, 1991, 1995; but see also Moriarty, 1996; Schrøder, 1994a, 1994b). However, albeit Jensen's effort is laudable and his employment of Peircean sign theory as a criticism of traditional dualisms (still prevalent in the semiological tradition stemming from Ferdinand de Saussure) is highly commendable, but he does not utilize all the resources of Peirce's philosophy.

On the other hand, it would be rather unfair to blame Jensen for this. One of the reasons for the relative neglect of Peirce is certainly the sheer magnitude and complexity of his philosophical writings—a corpus that leaves most philosophers bewildered, to say nothing of normal mortals. For communication scholars, Peirce's theory of signs seems to be the most promising place to start, but many have no doubt turned back after a brief encounter with the unwelcoming neologisms and logical classifications of his *semeiotic*.

Another partial explanation for Peirce's low profile in the field is a lack of understanding for the role of his theory of signs within his broader conception of inquiry and its relation to his pragmatist perspectives. Indeed, there is a definite danger in connecting Peirce too strongly to the so-called semiotic tradition of communication studies (see, e.g., Fiske, 1990; Littlejohn, 2002, for such associations); not because many of the ideas linked with the semiotic point of view would not be attributable to Peirce, but because the usual view of the tradition—that is, as contrasted to such approaches as rhetoric, phenomenology, even pragmatism—is too narrow to capture the range of Peirce's philosophy and its relevance for communication studies. Arguably, one of the strengths of the Peircean approach lies in the way it can combine several perspectives that are often thought to be too divergent to fit into the same framework.

In view of recent discussions, it is of special interest to consider Peirce's pragmatist qualifications. Notably, some accounts of the relationship between pragmatism and communication research are dismissive of Peirce's contribution, whether deliberately or not. For instance, in his attempt to establish the credentials of a distinct pragmatist tradition in communication studies, Russill (2004, 2005) in effect bypasses Peirce in favor of William James and Dewey, thus emulating the influential interpretative move of Richard Rorty, the leading proponent of neopragmatism (see Rorty, 1982). While Russill gives a kind of rationale for this preference by identifying the Jamesian notions of *incommensurability* and *pluralism* as the defining ideas of the pragmatist theory of

communication, his strategy may lead to an unnecessarily narrow picture of classical pragmatism and its potential for the field. Arguably, a pragmatist philosophy of communication would benefit from a serious consideration of Peirce's contribution.

This point of view could be motivated historically. James is of course influenced by Peirce; even the emphasis on incommensurability around which Russill begins to reconstruct the pragmatist tradition can be partly traced to Peircean conceptions in logic and metaphysics.⁴ Moreover, in his later phase Dewey seems to turn away from James as he explicitly adopts a Peircean viewpoint (especially in his Logic: The Theory of Inquiry; see Prawat, 2001; Colapietro, 2004). This gradual turn to Peirce is connected to Dewey's growing appreciation of the social dimension of Peirce's theory of inquiry, something that Dewey finds lacking in James (see, in particular, MW 10:77 [1916]). Dewey explicitly extols Peirce as "the first writer on logic to make inquiry and its methods the primary and ultimate source of logical subjectmatter" (LW 12:17 [1938]). Indeed, Peirce's rhetoric—which he characterizes as "the highest and most living branch" of semiotics (CP 2.333 [c. 1895])⁵—and Dewey's philosophy of technology, which has been dubbed "productive pragmatism" by Hickman (2001), can be viewed as complementary approaches, jointly suggesting a conceptual framework of potential value for present-day research. Quite apart from considerations of historical influences and accuracy, it is possible to argue that a pragmatist approach in communication studies is strengthened and—somewhat ironically—rendered more viable for contemporary research by the philosophical groundwork provided by Peirce.

However, the aim of the present discussion is neither to offer a complete criticism of Russill's Jamesian project nor to merge Peirce and Dewey. Here, I will merely try to remove some obstacles for a more thorough appropriation of Peirce for the field, primarily by sketching an unorthodox but hopefully more accessible "rhetorical" path into his thought—an approach that sets out from the grounding of philosophical inquiry in experience instead of the formal definitions typical of most presentations of Peirce's theory of signs. The objective is to prepare the ground for a more thorough appreciation of the potential of Peircean philosophy, by investigating how the problem of experiential incommensurability could be handled within such a framework. This does by no means constitute a full account of communication; attention is primarily focused on one specific philosophical aspect of the pragmatist conceptualization of communication inquiry as envisaged by Russill, while the subsequent but perhaps more consequential question of pluralism in a democratic society is not addressed here. Hence, the article will be confined to the following topics: Peirce's general view of philosophy and inquiry, the roles of common ground and collateral experience in his theory of signs, his appraisal of communicational indeterminacy, and his conception of rhetoric. This is, at best, only part of the story; my reconstruction is naturally informed by my objectives. Still, I hope these reflections will serve as useful guides into the sometimes intimidating world of Peircean philosophy, and—more importantly—engender debate concerning the possibilities of pragmatism to function as an approach in communication studies.

Philosophy in experience and practice

Let us begin by a look at one of the apparent impediments for positing Peirce at the head of the pragmatist tradition. For readers with only a vague idea of what pragmatist philosophy is—or with beliefs informed by radical neopragmatism—the first encounter with Peirce can be a shock, if not a severe disappointment. Instead of finding an action-oriented, down-to-earth position brimming with antitheoretical rhetoric, one is met by a barrage of strange concepts, meticulous system-building, and an open bias for logic. To make matters worse, Peirce at times seems to denigrate practice and application while praising theory (see, in particular, RLT, or the lecture texts published under the heading "Vitally Important Topics" in CP 1). He seems to prescribe an almost antipragmatic separation between the two; "the two masters, theory and practice, you cannot serve" (CP 1.642 [1898]). All this seems to justify Rorty's and Russill's preference for James as the proper originator of a pragmatist tradition. Certainly, it is difficult to see how Dewey, with his firm denial of the theory/practice dualism and his melioristic sensibilities, could be seen to be working in the same framework as Peirce.

In view of this, it may seem odd that Vincent Colapietro, a leading expositor of pragmatism, actually identifies *antitheoreticism* as a key feature of the Peircean approach. Although Peirce, as a pragmatist, must reject theoreticism in the strong sense—that is, "the position that the strictly theoretical provides the most adequate, least distorted, representation of reality attainable by human beings" (Colapietro, 2006, p. 25; cf. Sandbothe, 2001)—he seems to be too worried by the possible taint of practical application to renounce Theory with a capital T.

However, a closer look at Peirce's conception of philosophy as a mode of inquiry reveals a somewhat different picture. First of all, it is important to realize that Peirce's wish to defend the autonomy of science—its freedom to work on theories without having to serve external interests—does not entail a divorce of theory from practice in a broader, more conceptual sense. The sharp distinction between theory and practice may be partly explained away as overstatement; at any rate, it seems far more productive to adopt the view Peirce advocates in *Minute Logic*:

a theory cannot be sound unless it be susceptible of applications, immediate or remote, whether it be good economy so to apply it or not. This is perhaps no more true of logic⁶ than of other theories; simply because it is perfectly true of all. . . . It might be that a normative science,⁷ in view of the economies of the case, should be quite useless for any practical application. Still, whatever fact had no bearing upon a conceivable application to practice would be entirely impertinent to such a science. (CP 2.7 [c. 1902])

Furthermore, as a sharp critic of Cartesian thought, Peirce rejects spectator epistemology and appeals to pure cognitions (*intuitions*), whether these are viewed as rational or empirical entities. The alternative model he presents is semiotic, placing the emphasis on the sign character of cognitive processes—a thoroughgoing

antifoundationalist stance, in which concepts and theories are not just references to and pictures of the world but rather signs inherently connected to the kind of experience and action they are capable of prescribing. This, in part, lies behind his general definition of the sign, which extends the traditional representational conception of a sign as something standing for something else by including the interpretative effect (the *interpretant*) as an integral component of any sign relation. Peircean semiotics differs from dyadic sign theories, for example, de Saussure's *semiology*, by encompassing interpretation *in* the triadic sign concept. Hence, an analysis that merely focuses on the content (represented object or *signifié*) of signs is inadequate; a sufficiently complete semiotic investigation must always consider the interpretative context and pragmatic consequences of the signs in use.

In addition, Peirce denounces the Cartesian tendency to rely on a single thread of argumentation and artificial methods in philosophy. He is particularly stern in his criticism of the method of universal doubt: "Let us not pretend to doubt in philosophy what we do not doubt in our hearts" (CP 5.265 [1868]). This, together with the rejection of the notion of epistemic building blocks, amounts to a radical rejection of intuitionism—including the variant of empiricism known as logical positivism. There is no appeal to primary absolutes—that is, self-evident objective facts purged of the taint of interpretation—in Peircean semiotics.

However, this seems to leave philosophy with neither foundation nor a clear-cut starting point. There is certainly no stable ground on which to found any philosophical line of investigation. According to Peirce's memorable metaphor, to engage in inquiry is like walking on a bog; we can only say that the ground we stand upon seems to hold for now (RLT 176–177 [1898]). Instead of doubting our beliefs *en masse*, we "must begin with all the prejudices which we actually have when we enter upon the study of philosophy" (CP 5.265 [1868]). This means *experience* in the full sense, a product of the fact that we are acting, intelligent beings in a world that often provides obstacles to our actions and surprises to our expectations. The course of life forces such facts upon us; we may lie about our experience, but we can never escape it (CP 2.138 [c. 1902]).

experience can only mean the total cognitive result of living, and includes interpretations quite as truly as it does the matter of sense. Even more truly, since this matter of sense is a hypothetical something which we never can seize as such, free from all interpretative working over. (CP 7.538)

Note, however, that this is definitely not an appeal to atomic experiences in the traditional empiricist or nominalist sense; experience is not something that is given in simple bits and then put together as complex objects by the human mind. Similarly, Peirce emphatically rejects sensationalist⁸ and particularistic epistemology and metaphysics; in fact, this refutation marks an important difference between Jamesian radical empiricism and what we might designate Peircean "nuanced empiricism." In a letter to James, written in the very period when pragmatism emerged as a serious contender in the philosophical world, Peirce criticizes his

fellow-pragmatist for calling a sensation an experience, and asserts that "experience and *an* experiential event are [. . .] utterly different, experience being the effect that life has produced *upon habits*." This position should be complemented by Peirce's dictum that percepts and perceptual judgments possess merely a kind of imperfect reality as data of knowledge; "developed reality only belongs to signs of a certain description." James's radical empiricism leans toward sensationalism as it tends to limit experience to sensations and their patterns.

From a Peircean point of view, such an ontology is too narrow; it ignores the experiential reality of semiotic habits and therefore does not adequately cover the interpretational aspect of experience.

Experience is never pure or simply had as a neutral sense impression, but is rather a product of certain transactions (to borrow a term from Dewey); as Peirce notes, the "very etymology of the word tells that [it] comes *ex perito*, 'out of practice'" (MS 681:3 [1913]). Thus, the traditional empiricist concept of experience is replaced by a pragmatist notion related to practice. However, as a component of Peirce's philosophy, this broader concept of experience is perhaps more appropriately characterized as a phenomenological conception. Certainly, it is not by chance that Peirce designates the primary branch of philosophy as *phenomenology*, while he contends that the object of study of philosophical inquiry is everyday experience, in distinction from the kind of experience utilized in special sciences such as physics and psychology. The latter, narrower type of experience is a result of specialized means of observation; the former, "common sense" experience requires no such extraordinary means.

in philosophy there is no special observational art, and there is no knowledge antecedently acquired in the light of which experience is to be interpreted. The interpretation itself is experience. (CP 7.527)

This picture of philosophy, in which the would-be philosopher is provided with no peculiar tools or methods for separating interpretations from genuine objects in the constant flow of cognitively compulsive experiences, is in many respects reminiscent of James's radical empiricism, in spite of differing views of what "experience" really entails. Peirce, just as James, does not accept a primary ontological dualism between subject and object (cf. Russill, 2005, p. 290). In both cases, it seems somewhat inappropriate to speak of a "philosophy of experience"; rather, we are dealing with philosophies *in* experience. However, the ways in which the two pragmatists come to grips with the situation differ significantly. James tends to contrast his empiricist stance to intellectualism and upholds pluralism on this very ground; but Peirce goes on to construct an elaborate philosophical framework of phenomenological categories and sign types, while allegedly staying faithful to his conception of philosophy as a study of everyday experience. Unfortunately, Peirce does not explain in great detail how this feat is achieved. Nonetheless, he provides some important clues, which allow us to begin a reconstruction of his position.

Dialogue and hope

In a criticism of Hegelian philosophy, Peirce asserts that philosophy ought not to start out from pure ideas, "vagabond thoughts that tramp the public roads without any human habitation," but should begin with the familiar and complex ideas inherent in human dialogue (CP 8.112 [c. 1900]). At first blush, this may feel like a somewhat odd and anomalous proposition. However, it is perfectly consistent with the outlook sketched above, as long as we accept that communication is part of our common, everyday experience. In fact, it is possible to contend that this seemingly innocuous remark reveals the key position held by communicational experience in Peirce's philosophical approach.

Firstly, it indicates, on a general level, a way past the typical trap of empiricism: The emphasis on individual experience that easily slips into simple positivism or gets mired in solipsism. While Peirce often notes that the experiences of human beings always differ to some degree (see, e.g., MS 797:10), he also asserts that a person naturally tends to identify him- or herself with an ideal community, which includes not only fellow human beings but the future self of the person in question, and maintains that "experience" also encompasses the collective experience of the temporally spread community (CP 8.101 [1900]). This nod toward idealism, ¹² which at first may seem to include a transcendence of experience and thus a violation of Peirce's own view of philosophy, is rendered possible by the acknowledgment of communication as a complex but familiar feature of experience. The ideal community may be viewed as a generalization of the more concrete union that is commonly (although never perfectly) achieved in everyday interaction—the communicational experience that can be described as that of being of one mind. Arguably, this leads to a position that is sensitive to experiential variations without falling into the abyss of absolute incommensurability of experiences. The constraints and ramifications of this viewpoint will be further explored in the following sections.

Secondly, dialogic experience is of special relevance for Peircean semiotics. Peirce's sign theory is allegedly abstracted from familiar semiotic processes; and indeed, he suggests that his basic concept of sign should be treated as a fallible generalization of our semiotic experiences of ordinary dialogue, "a wonderfully perfect kind of signfunctioning" (EP 2:391 [c. 1906]). We may thus conclude that the complex and often foreboding theory of signs constructed by Peirce ought to be viewed as a set of abstractions from everyday practices (CP 2.227 [c. 1897]). It is presented systematically and formally, in relational terms. But as the product of abstractions from what could be termed the *rhetorical field* of everyday semiotic interaction, the theory is fallible and must ultimately be brought back to the rhetorical field for testing; "the deductions, or quasi-predictions, from the theory having been made, it is requisite to turn to the rhetorical evidence and see whether or not they are verified by observation" (CP 2.333 [c.1895]).

This suggests that the elaborate constructions of philosophical semiotics are neither self-sufficient nor irresponsive to the requirements of practice. But in contrast to many other pragmatist approaches, Peirce offers a way to pursue an antitheoreticist

path without thereby denigrating theory in a wholesale fashion (Colapietro, 2006, p. 25).

Furthermore, he may be read as offering an alternative conception of objectivity to that of positivist philosophy of science. In his pioneering articles of the 1870s, "The Fixation of Belief' and "How to Make Our Ideas Clear," Peirce defines the aim of inquiry as that of fixing beliefs and settling opinions in a social setting (ultimately organized as "science").

However, this does not entail relativism or conversationalism à la Rorty; in fact, Peirce emphatically asserts the significance of the concepts of reality and truth for inquiry. But rather than presenting reality as an efficient cause of cognition or defining truth in terms of representational correspondence between sign and world, his pragmatic approach characterizes the real as an end result and truth as an ideal aim that emerges naturally from everyday activity. Such "reals" are, by definition, shared, and, in that particular sense, the contents of "positive" or social knowledge; they can also be defined as habits that would stand the test of experience. "Truth," in its turn, should be understood as something that genuine inquirers reasonably seek. It is not given that there is truth to be found concerning all possible questions, but with regard to any particular problem that engages us, we quite naturally hope that there is an answer that will not only satisfy us but any intelligence capable of learning from experience.

In reference to any particular investigation that we may have in hand, we must *hope* that, if it is persistently followed out, it may ultimately have some measure of success; for if it be not so, nothing that we can do can avail, and we might as well give over the inquiry altogether, and by the same reason stop applying our understanding to anything. So a prisoner breaks through the ceiling of his cell, not knowing what his chances of escape may be, but feeling sure there is no other good purpose to which he can apply his energies. (NEM 4:xii—xiii)

Similarly, Peirce argues that "when we discuss a vexed question, we hope that there is some ascertainable truth about it, and that the discussion is not to go on forever and to no purpose" (CP 2.113 [c. 1902]). From such assertions we may infer an intimate connection between inquiry, communication, and community. Indeed, as Ransdell (1997, 1998) has argued, sciences may be characterized as communicational communities in the Peircean framework. According to Ransdell (1997), Peirce "does not identify science or the scientific by reference to any special type of property of the subject-matter of the science (its 'primary qualities', for example), or by reference to some special 'scientific method' (in the sense in which that would usually be understood), but rather by reference to the communicational relationships of its practitioners, considered members—past, present, and future—of a potentially infinite community of shared cognitive concern: truth-seekers considered just insofar as they are genuinely in search of the truth about an object of common interest" (§ 6).

This position is thoroughly fallibilistic—there is no firm warrant for truth, not now and not at any definite moment in the future. As Peirce notes, there is no way to be certain "that the community ever will settle down to an unalterable conclusion upon any given question. Even if they do so for the most part, we have no reason to think the unanimity will be quite complete, nor can we rationally presume any overwhelming consensus of opinion will be reached upon every question" (CP 6.610 [1893]). All that we are entitled to is the hope that a satisfactory conclusion may be substantially arrived at regarding issues that genuinely engage us. Were such an end definitely reached—that is, a stable state of beliefs in which no more inquiry would be engendered by doubts—then the representation of reality achieved *would be* the reality (MS L75c:90). The signs would, in a pertinent sense, be true of their objects. But that is still just an account of how the pragmatist may define "truth." As human beings, we "cannot infallibly know that there is any Truth" (SS 73 [1908]).

Consequently, Peirce's philosophy offers a conception of hope-driven inquiry embedded in experience, processes of interpretation, and communal practices. It provides an antifoundationalist epistemology (to use a term that Peirce actually abhorred), which does not succumb to relativism. Nor does the social emphasis lead to the kind of neopragmatist view where all that matters would be the perpetuation of conversation for conversation's sake. Firstly, Peirce affirms the goal-directed character of inquiry, as something tending toward the truth in the nontranscendental normative sense outlined above. Secondly, he argues that signs, in order to be truly efficient agents in the world, must have pragmatic consequences: "signs which would be merely parts of an endless viaduct for the transmission of idea-potentiality, without any conveyance of it into anything but symbols, namely, into action or habit of action, would not be signs at all, since they would not, little or much, fulfill the function of signs" (EP 2:388 [c. 1906]; cf. SS 31 [1904]). Thus, the goal of criticizing and developing semiotic practices through various kinds of organized inquiry—such as communication studies—is not merely to reach objective truth, but also to attain experientially and socially sustainable habits of action. Actually, from a pragmatist point of view, these are simply two sides of the same coin.

Common ground and collateral observation

In spite of the fact that the idea of communication arguably is found at the very heart of Peirce's philosophy and his conception of science, another potential disappointment awaits the communication theorist; Peirce rarely talks about "communication" (Habermas, 1995). In fact, he offers no definition of the concept. However, this is not such a debilitating deficiency as it may at first seem, for Peirce's theory of signs can largely be interpreted as an attempt to articulate and analyze the complex set of experiences covered by the term "communication." A premature definition of communication might in fact hamper inquiry by needlessly limiting the field; in many cases, we may be better served by an indefinite and inclusive notion of communication, "derived" from mundane experience. 14 Nonetheless, the way in

which Peirce approaches the kind of facts and features of everyday life that allegedly form the starting point of philosophical inquiry provides certain basic insights into what we may loosely call his conception of communication. As noted, he suggests that multifaceted, everyday communication may provide the most adequate starting point for philosophical inquiry; and in fact, his scrutiny of common conversation proves to be quite revealing, especially in view of Russill's (2005) claim that the problem of incommensurability is a central problem in a pragmatist theory of communication.

We are familiar with the phenomenon of a man expressing an opinion, sometimes decidedly, often otherwise. Perhaps it will be a mere suggestion, a mere question. Any such suggestion that may be expressed and understood relates to some common experience of the interlocutors, or, if there is a misunderstanding, they may think they refer to some common experience when, in fact, they refer to quite different experiences. A man reasoning with himself is liable to just such a misunderstanding. About this common experience the speaker has something to suggest which is supposed to be new to his auditor. (CP 8.112 [c. 1900])

Thus, Peirce declares that every communicational interaction, whether assertive or interrogative, involves a relation to something shared by both parties; "two men cannot converse without some common ground of experiences undergone by both concerning which they speak" (MS 1135:7 [c.1897]). In other words, verbal communication would seem to require at least some joint point of reference or common ground. Of course, this provokes a series of further questions, which can only partly be addressed here. For instance, what does *one* experience mean in this context? How is the common point of reference practically established in social transaction?

Peirce further suggests that misunderstanding is at bottom an affair of divergent points of reference. The parties believe that each is referring to the same experiences as the other, while in fact talking of different things. This may appear to be a rather uncontroversial claim, but a demand for referential identity can open up the gates for certain kind of scepticism, even nihilism (cf. Johansen, 1993b). Setting out from the fact that the experiences of two people never are absolutely identical, one could claim that communication is actually an illusion. What we perceive as a communicational exchange, where the object of discussion is clearly apprehended by all those involved, is in fact a collection of distinct individual interpretations colored by experiential backgrounds. This could be construed as a Peircean articulation of the problem of incommensurability.

The recognition of experiential divergences does not, however, necessarily imply scepticism with regard to the possibility of communicational interaction. As we have seen, Peirce's conception of experience is not that of classical empiricism or positivism.

Rather, experience in a broad sense is always connected to a complex network of interwoven sign structures and inferential processes, which are not the possession of

any single human being, but rather social in both the cultural and natural sense.¹⁵ Furthermore, although experience is, from one point of view, in the cognitive possession of an individual human being, Peirce holds that an inquiring intelligence naturally identifies him- or herself with a community in sentiment. Consequently, Peirce contends that experience is felt to be social in a consequential sense.

The course of life has developed certain compulsions of thought which we speak of collectively as Experience. Moreover, the inquirer more or less vaguely identifies himself in sentiment with a Community of which he is a member, and which includes, for example, besides his momentary self, his self of 10 years hence; and he speaks of the resultant cognitive compulsions of the course of life of that community as Our Experience. ¹⁶ (CP 8.101 [1900])

The course of life forces certain experiences upon us—experiences that are not only cognitively complex and inherently interpretative but also naturally taken to be the common property of a community of intelligences. Such experiences, to the extent that they are shared and relevant for the interaction, form the common ground of communication. Of this vaguely delimited fund of background information, of which we are not necessarily conscious while relying on it, no exhaustive inventory can be given.

Its characteristics obviously depend on context and the persons involved, and it is constantly changing. However, it is safe to say that it involves the mutual recognition of certain capacities and tendencies; the communication of anything—regardless of whether this is understood primarily as transmission or communion—requires at least some fund of common familiar knowledge, "where the word 'familiar' refers less to how well the object is known than to the manner of the knowing" (MS 614:1 [1908]). For instance, a participant in an ordinary communicational exchange virtually or actually acknowledges that the others are capable of mastering certain uses of signs (usually including grammatically advanced kinds such as natural languages), and that they are beings capable of learning from experience and as such of the same general type as he or she is. This also implies knowledge—or perhaps more correctly, an experiential grasp—of the distinction between reality and unreality.

Here, we should be careful not to overly rationalize Peirce's position; we are not dealing with a strong transcendental argument that moves from the fact of communication to necessary presuppositions. Rather, the claim is that there is a more primitive aspect in life, generally identified as experience, which tends to force us into a certain pattern of common-sense beliefs. Arguably, such vague beliefs, which are typically taken for granted and are for the time being (albeit not absolutely) beyond criticism, arise naturally from practices in which we try to make our way in the world.

The underlying habits may to a limited extent be conceptually clarified and ultimately criticized by rational argument, but the beliefs involved cannot be rendered more indubitable by supraexperiential means. Consequently, the Peircean conception of common ground may be viewed as a minimal pragmatic prerequisite—or better,

ingredient—of communication. It is closely connected to the social sentiment that affirms the communality of experience, quite apart from the support of philosophical argument.

As such the common ground is indefinite; if articulated, it will result in vague statements to the effect that people need to have sufficiently similar experiences in order to be able to communicate. Thus, the recognition of the need for common ground says very little, if anything, about the particular experiential requirements of more specific lines of communication. In order to deal with these, some further Peircean concepts are needed.

The objects of communication

Given the framework of Peircean semiotics, communication can vaguely and generally be portrayed as a complex of sign processes, in which the involved parties (whether individual intelligences, phases of the self, or collective agents) refer to certain subject matters, theoretically conceptualized as objects, with certain effects or consequences, summarized as interpretants.¹⁷ This multifaceted process need not be fully intentional—involuntary facial expressions frequently function communicatively¹⁸—but it requires a common ground of experience, whether emotional, practical, or intellectual, which suffices to identify objects of communication.

Simply, the object can be characterized as "anything that we can think, that is anything we can talk about" (MS 966). According to Peirce, such semiotic objects have two sides: the *immediate*, which may be described as internal to the sign relation, and the *dynamical*, which is in a pregnant sense outside of the sign, but still capable of determining or delimiting it. He argues that the dynamical object cannot be expressed by the sign; it can only be indicated, so that the interpreter can find it out by *collateral experience* (EP 2:498 [1909]). Mere signs will be inefficient, if the required experiential background or proficiency is missing. Even the direct presence of the object may be insufficient.

I point my finger to what I mean, but I can't make my companion know what I mean, if he can't see it, or if seeing it, it does not, to his mind, separate itself from the surrounding objects in the field of vision. It is useless to attempt to discuss the genuineness and possession of a personality beneath the histrionic presentation of Theodore Roosevelt with a person who recently has come from Mars and never heard of Theodore before. (EP 2:498 [1909])

Of course, it is unlikely that an alien from Mars would understand English; but Peirce's point is that a mere acquaintance with a system of signs, which certainly is a condition for grasping signification, would not be sufficient in the unlikely contingency (EP 2:494 [1909]). In order to understand what the sign "Theodore Roosevelt" denotes—what it is about—something more is needed. Peirce calls this necessary ingredient "collateral experience," which implies experiential "knowledge" that is not strictly speaking contained in the signs used.

One of the facts on which Peirce bases his argument for the need of collateral experience is that no description, in itself, suffices to indicate the object of a communicational exchange. If person A says "George Bush is a fool" to person B, whether in conversation or more indirectly through a medium such as television, the sentence will be close to senseless unless B has some previous experience of the objects involved. That is, if B does not know who George Bush is, or has blissfully escaped contact with fools, the objects of the sentence will not be sufficiently fixed to function determinatively in the semiotic process. ²¹ If B asks "Who"?, A can try to specify the reference by offering a description along the lines of "the 43rd president of the United States"; but then again, the understanding of that phrase depends on experience of such objects as presidents and the United States. The explications can be made more and more minute—we may go into ever more concrete details or point to televised images of the object denoted—but unless A somehow manages to connect the subject matter to objects within B's sphere of experience, no communication can take place. According to Peirce, such a reference cannot be achieved with pure descriptions. In other words, any assertion requires the kind of signs he calls *indices*, backed by collateral experience, as well as iconic and symbolic signs.²²

Indices are indispensable as contextualisers of communication; they are signs that in some sense indicate, denote, or call attention to their objects, without thereby giving any substantial information about them. Indices are signs by virtue of experiential connection (MS 797:10). They may be broadly divided into two classes: (a) *reagents* or indices proper, for example, the environment of the interlocutors or something attracting attention in that environment, such as a pointing finger, and (b) *designations* or subindices, conventional but nondescriptive signs that draw the interpreter's attention to certain existents, like proper names and pronouns do. Both of these require collateral experience or acquaintance; "as a designation can denote nothing unless the interpreting mind is already acquainted with the thing it denotes, so a reagent can indicate nothing unless the mind is already acquainted with its connection with the phenomenon it indicates" (CP 8.368 n. 23).

The need for collateral experience and observation needs some illustration, for which a modification of a simple example used by Peirce may be adopted. Suppose, for instance, that a newscaster with a penchant for drama announces the next bit of news with the exclamation "Fire!" The viewers will perhaps take notice, but based on experience of these kinds of communications and the medium of television, they are unlikely to misinterpret it as a direct warning referring to the immediate surroundings. The interpretants will most likely be very different if a person enters the room and shouts "Fire!" Yet, the word in itself, as a symbol, provides no way to distinguish the two cases. We could of course look up "fire" in a dictionary, but that would merely give us a description of how it might be applied (cf. MS 452:12 [1903]). If that were all we had to go on, we might calmly ask for more information from the person who entered the room. However, if we note that the utterer's tone is panicky, and that his or her expression is worried, we will probably start to look for a way out. Add a smell of smoke to the environment, and there should be no doubt

about the object of the sign—although we actually know very little about the object, and the whole thing might be a rather puerile prank. There are many indices at play in such a situation: The tone and the expression, for instance, but also less obvious contextual elements, such as the setting in which we are located.

Peirce's point may be condensed into the thesis that in any communicational situation, the indication of objects requires some collateral experience. True, we are obviously acquainted with many semiotic objects by other means than direct experience; the media, in particular, provides innumerable signs of objects that we will never actually see, hear, or smell. Most of us will never meet George W. Bush; yet, we produce numerous interpretants about that object. However, the Peircean point is that any object, in order to be able to function in semiosis (i.e., be a part of sign action), needs to connect directly or indirectly with experience; there is no such thing as a purely conventional object. Even a fictional object will, possibly through a long and complex chain of signs, have some connection to experience, if it is understandable at all.²³ This does not mean that we could reach a "real" object by removing superfluous semiotic layers; to "try to peel off signs & get down to the real thing is like trying to peel an onion and get down to onion itself, the onion per se, the onion an sich" (MS L387 [1905]). We might say that the worlds of experience and signs are intertwined without thereby dissolving into one or the other; semiotic objects are not reducible to experiential atoms, but nor is experience simply the content of certain kinds of signs.

In sum, the concepts of common ground and collateral experience point to various ways in which advanced, symbolic communication requires an experiential environment. While the notion of common ground refers to the need for some communal comprehension, be it ever so slight and tacit, the idea of collateral experience or observation may be viewed as a reminder of the fact that signs are not self-sufficient. Purely symbolic descriptions would not be able to designate objects (i.e., subject matters); for that, we always need signs capable of indicating (rather than symbolizing) experiences that are not strictly speaking contained in the system of signs used. The relevance of these considerations for a reconstructed Peircean theory of communication is (a) that they show that communication cannot be analyzed in terms of utterance (coding) and interpretation (decoding) alone, but must be seen as embedded in a fuller setting of experience and practice, and (b) that they demonstrate the particular import of indices in communication. Moreover, they suggest that a Peircean philosophy of communication is not conventionalist; the theory cannot be restricted to sign systems in the manner of Saussurean semiotics.²⁴

Vagueness and discursive purposes

While common ground and collateral experience can be construed as minimal pragmatic requirements for communication, they only render utterance and interpretation possible in a broad sense; in most cases, the communicational space needs to be further delimited in order to facilitate actual transfers and communions.

Rather than being separated from each other by our idiosyncratic experiences, our shared fund of experience is often so vast and heterogeneous that it needs to be narrowed in view of the purposes of the transaction. Peirce draws attention to the necessity of specifying in what *universe of discourse*²⁵ communication is supposed to take place, and again argues that indices play a central role in the process. Such signs indicate the specific domain in which the objects referred to are to be found; or, to express the point differently, what kind of experience is required for the proper grasping of the subject matter. In an entry in *The Dictionary of Philosophy and Psychology*, Peirce and Christine Ladd-Franklin state the matter as follows:

In every proposition the circumstances of its enunciation show that it refers to some collection of individuals or of possibilities, which cannot be adequately described, but can only be indicated as something familiar to both speaker and auditor. At one time it may be the physical universe, at another it may be the imaginary "world" of some play or novel, at another a range of possibilities. (CP 2.536 [1902]; cf. CP 2.357 [1902])

In other words, there is no semiotic *property* that would distinguish the various universes from each other; not even the basic distinction between fact and fiction is given in the signs (see CP 2.337 [c. 1895]). Instead, a variety of means are used to indicate what universe is meant; "often, it is the tone of the discourse which gives us to understand whether what is said is to be taken as history, physical possibility, or fiction" (NEM 4:367). In other cases, certain phrases, such as "the fact is" or "once upon a time," or nonverbal indicators, such as the theme tune of a news broadcast, afford a clue. Of course, such expressions partake of the nature of conventional signs, but insofar as they refer us to some living experience or to something with which we are familiar by action and reaction, they signify their objects predominantly in an indexical way, or by existential connection (NEM 4:367).

Thus, a universe of discourse can be said to be a partial narrowing of the semiotic cosmos, or the identification of one possible world among many. Such a universe, appropriately delimited, constitutes the space in which actual utterance, interpretation, and communication can take place; as Colapietro (1989) observes, the "specification of the object of any sort of semiosis must . . . always be determined in reference to the context in which the process of semiosis is occurring" (p. 11). The rules of interpretation will be different for different universes of discourse. Here, we should not only think of such broad universes as those of fact and fiction. Various genres of communication or different kinds of media environments tend to constitute their own universes of discourse, which function as implicit contracts between utterer and interpreter.²⁶ The rules of the game dictate that news broadcasts purport to be about reality—and this is so even if the viewer suspects or knows that the claim is compromised in numerous ways. Even types of mediated communications that appear to break down conventional discursive barriers often establish their own universes of discourse; just think of the ease with which viewers have adopted to so-called reality television with its peculiar mix of the real and the fabricated.

One of the important implications of this reconstruction of the idea of universes of discourse is that the identification of objects always occurs within a certain semiotic space relative to certain purposes, connected to aims such as receiving information, establishing contacts, or being entertained. To make heads or tails of communicational acts, an interpreter must be able to grasp what universe of discourse is at issue and how to demarcate or specify objects adequately within its domain; and that is feasible only in a purposive context, whether the aims are strictly shared by participants or not. The demarcation need not be definite. Signs characteristically leave a certain leeway of interpretation—not only in the development of interpretant-effects but also with regard to referential delimitation. Indeed, signs typically designate a more or less indefinite universe, within which objects might be experienced, rather than explicitly indicating the object of the sign. On their own, signs are not capable of properly fixing the reference of discourse purporting to relate information concerning some world.²⁷ Nor can collateral observation ever bring forth a perfectly particular positive object, determinate in every conceivable respect. Thus, there will always be a certain degree of indeterminacy or latitude in sign use because human beings cannot escape the use of signs to some kind of "hard core" of pure objective perception.

The determination of the object is basically a process in which the references of a sign are made sufficiently clear for communicational purposes. That is, this type of determination consists primarily in specifying the object in various ways, so that it can act as a basis for semiotic interaction. In other words, in the case of communicational indeterminacy, the immediate objects need to be made suitably determinate, so that the object can function dynamically as a determinant of semiosis. We could, therefore, differentiate two modes of determination: *Communicational determination*, in which indices or other means are used to decrease the indeterminacy of a communicational situation, and *objective determination*, in which the object acts as a delimiter of interpretation.

Although this distinction between two kinds of determination cannot be found as such in Peirce's writings, it appears to be compatible with his semiotic and his theory of indeterminacy. A few words of caution are in order, however. The fact that deliberate communicational determination is often needed for efficient objective determination does not imply that the latter is straightforwardly caused by the former. In fact, from a logical point of view it would be more appropriate to say that the determinative power of the object is what makes communicational determination possible at all. As noted, one of Peirce's central points is that communicational exchange is only possible if the object is already at least to some extent known by both utterer and interpreter. The basic acquaintance cannot be had by mere descriptions or other purely intrasemiotic means; according to Peirce, it requires some collateral observation of the object. This collateral experience is logically prior to the sign, although the sign may be encountered in real life before its object has been adequately determined. Think here of the first time a certain name, such as "George W. Bush," is heard or read; at first the sign may be incomprehensible, but if it is linked to appropriate experience through signs such as "president," "United

States," and the communicational environment of the television medium (a potent index in our culture), the object is soon determinate enough for a certain degree of understanding.

Still, as has been suggested, mere objective determination is rarely, if ever, sufficient. The object of a certain communicational exchange cannot be adequately identified without a purposive context or setting, which limits the scope of the sign; the sign must be understood as functioning within a certain universe of discourse. Were we not capable of placing signs and objects in appropriate discursive contexts, many—if not most—signs would be too indeterminate to function as such.

The import of this claim can be clarified with the help of an illustration given by Peirce (EP 2:393 [1906]). In his example, two Englishmen meet in a railway carriage and engage in conversation. One of the men mentions Charles the Second, and the other has no problem in identifying what subject matter (i.e., object) is meant, as he is in possession of the required collateral experience. The immediate object, which is grasped almost automatically and without reflection, is the English Charles the Second. When this preliminary communicational identification is made, the object becomes an actual determinant of the ensuing conversational exchange. Yet, the success of this determination does not mean that the object of the discussion has been rendered perfectly determinate in every respect. For instance, the Englishmen have not specified what precise temporal Charles is meant; one could argue that Charles was a different man on different days, and so forth. They might even stop to wonder whether they can communicate at all, since their experiences of the object are bound to differ. However, the travelers have no interest in such details, given that they are engaged in polite conversation. What renders the determination of the subject matter a success, in spite of the countless specifications that could be added, is the purposive context provided by the discussion. As Peirce puts it, "the two Englishmen have no purpose of splitting hairs in their talk; the latitude of interpretation which constitutes the indeterminacy of a sign must be understood as a latitude which might affect the achievement of a purpose" (EP 2:393 [c. 1906]).

Obviously, the situation would have been different if one of the travelers would have lacked the needed collateral experience. In that case, the utterer of the sign would have been forced to try to find suitable signs with which to specify the object meant using the shared experience available as a starting point. If no suitable experiential factors can be found, then the undertaking would be hopeless, rather like trying to discuss the wit and wisdom of George W. Bush with a being that has just arrived from Alpha Centauri (cf. EP 2:498 [1909]).

A sign that in certain contexts might be highly indeterminate and almost incomprehensible can, under other circumstances, leave no uncertainty as to its object. Considered in isolation, the sign "the president" in the proposition "the president is a fool" is a highly indefinite sign. However, collateral factors typically render the sign less indefinite, or determinate enough to be considered as decidedly identifying an object in a certain universe of discourse and relative to a certain communicational purpose. In fact, the indeterminacy or determinacy of a sign can

meaningfully be discussed only relative to such contexts. Jarrett Brock explains this succinctly:

It is important to note that Peirce's concepts of indeterminacy and determinacy were initially defined and interpreted relative to a given universe of discourse (in the sense of De Morgan) and a given state of information. This relativity is presupposed by the later pragmatic analysis of indeterminacy and determinacy. According to this analysis, a term is indeterminate if it allows a *latitude of interpretation* or *further determination* relative to the purpose(s) of a given discourse or inquiry and is determinate if it does not. Thus a term may be said to be relatively determinate or relatively indeterminate or absolutely so. A term is absolutely determinate or indeterminate if it has the requisite properties relative to all universes of discourse, all states of information, and all purposes of discourse or inquiry. (Brock, 1981, pp. 133–134)

It is highly questionable whether any sign can ever be said to be absolutely determinate, but relatively determinate signs are commonplace. The degree of specification required depends on our aims in communication. If the goal is to convey some piece of knowledge about some object, for example, to tell a foreigner that the acting president of Finland is a woman, then it is clear that a certain amount of precision is needed. If somebody simply states "the president is a woman," without further designation, the attempted communication can be an abject failure.

Incommensurability and the relativity of definiteness

Even if we accept that a degree of indeterminacy is inevitable in communication, it is still pertinent to ask whether an elimination of indeterminacy is always a laudable goal, and to what degree it can be achieved. If we consider the first question from a Peircean point of view, then we will have to answer in the negative; Peirce often claims that generalization is the principal aim of our intellectual activities. In other words, certain semiotic endeavors—science in particular—aim at producing, or perhaps more accurately discovering, general signs; that is, signs that are indeterminate in a special sense. The explanation for this somewhat strange conclusion is to be found in Peirce's "scholastic realism"; general signs are needed to represent adequately the general laws of the world. Generality, then, is not to be construed as a defect in a sign, although it may be so viewed in some specific situation; overtly general signs are often useless, and generalizations can of course be exploited. However, is not the case of vagueness²⁸ different? It would seem that this mode of indeterminacy is simply a semiotic imperfection, which ought to be eliminated as far as possible. Certainly, the intuition of many philosophers and rhetoricians—including Peirce on occasion—has been to proclaim such indefiniteness²⁹ as a main barrier to efficient and transparent communication. That is, the fact that people's experiences and conceptions of objects differ, in spite of seeming agreement in usage of sign vehicles, is often taken to be a primary cause of communicational confusions; and no doubt, it is.

However, as Peirce also explains, it would be utterly detrimental to try to specify the object in minute detail in many communicational interactions. The idea that indefiniteness could be completely eradicated is simply not feasible; no cognition and no sign is ever absolutely precise (CP 4.543 [1906]; cf. CP 5.506 [c. 1905]; CP 8.208 [c. 1905]). At least, this is true of communication.

No communication of one person to another can be entirely definite, that is, nonvague. We may reasonably hope that physiologists will some day find some means of comparing the qualities of one person's feelings with those of another, so that it would not be fair to insist upon their present incomparability as an inevitable source of misunderstanding. Besides, it does not affect the intellectual purport of communications. But wherever degree or any other possibility of continuous variation subsists, absolute precision is impossible. Much else must be vague, because no man's interpretation of words is based on exactly the same experience as any other man's. Even in our most intellectual conceptions, the more we strive to be precise, the more unattainable precision seems. It should never be forgotten that our own thinking is carried on as a dialogue, and though mostly in a lesser degree, is subject to almost every imperfection of language. (CP 5.506 [c. 1905])

Why does the persistence of indefiniteness not lead to scepticism regarding the possibility of communication? Granted that all signs are to some degree indefinite, does it not follow that the shared identification of objects is uncertain at best? This would in fact be the crushing result, *if* absolute precision were required. But communication often works well because of (and not just in spite of) the indeterminacy of the signs used.

Peirce actually suggests that a perfectly determinate sign is not only a practical impossibility but also would be of no use for reasoning and semiotic development. Such a sign would be totally isolated, a Leibnitzian monad (CP 4.583 [1906]; cf. CP 4.551 [1906]); therefore, it would not be able to be integrated in the wider semiotic and pragmatic webs within which it could be meaningful and effective.

Is indefiniteness then simply a necessary evil, of which we never can rid ourselves, but that still ought to be combated on all fronts with improvements of our semiotic practices? Certainly, the reduction of vagueness is a constant need. However if we consider the role of indefiniteness in life, we will also see that it is a key feature in so-called common-sense beliefs. The most distinctive character of the so-called critical common-sensist—nearly a synonym for "pragmatist" for Peirce—lies in the insistence that those beliefs, that we cannot doubt nor criticize are invariably indefinite (EP 2:350 [1905]; CP 5.505 [c. 1905]). According to Peirce, an attempt to wipe our set of ideas *completely* clean from such beliefs would inevitably fail, and the effort might even be damaging. To ask whether vagueness could not be wholly eliminated is reasonable only if one stands aloof from the actual situation, viewing it in a detached manner, as one might observe a painting by Monet (CP 5.508 [c.1905]). In the end, one would be forced to admit that it is not because the analysis

of signs has not been rigorous enough that the indefiniteness persists; it is because the common-sense belief is intrinsically indefinite and *valuable as such*.

Peirce gives a clarifying example of such a serviceable indefinite belief: our belief in the order of nature. On a common-sense level, most of us, if not all, believe that there is at least some order in nature, although we may be incapable of specifying what exactly constitutes the order or how it is built up. In fact, if we try to define precisely what we mean by the belief, doubts are almost certainly encountered. This has been the fate of many philosophers who have considered the question of natural order. Yet, even if such analyses cause us to doubt the precisely defined belief, the indefinite core of the common-sense belief will remain—who could genuinely believe that there is *no* order at all in nature (CP 5.508 [c. 1905])? Would such scepticism accord with experience?

This line of thought might also be applied to certain proverbial problems of communication. An analysis of the concept may take us to the worrying conclusion that human beings are always experientially heterogeneous, and that communication is invariably vague. Should we then proclaim communication to be an illusion because of the inevitability of incommensurability? The Peircean answer would be no. Human beings tend to believe in communication, in a vague sense; that much is manifested in their practices, which, to some extent at least, work. For a philosopher or communication theorist to proclaim this to be an illusion, based on false suppositions, would be Cartesian hubris.

More generally, Peirce's point is that there are certain signs, for instance, vernacular words, which cannot be rendered absolutely precise without losing something significant in the process. If a theory attempts to achieve conceptual clarity by substituting definite definitions for such words, the results are almost certain to be disappointing; the originals alone answer to the principal purposes (CP 6.494 [c. 1906]). Precision has its limits; human beings "who are given to defining too much inevitably run themselves into confusion in dealing with the vague concepts of common sense" (CP 6.496 [c. 1906]).

Consequently, vagueness is a vital feature of purposive communication, something that cannot completely be removed from the picture, even in a formal representation; "vagueness . . . is no more to be done away with in the world of logic than friction in mechanics" (CP 5.512 [c. 1905]). This does not mean that Peirce would disparage intelligent criticism of indefinite semiotic practices. There certainly are situations where vagueness can be viewed as a defect, for instance, in many ordinary acts of assertion, such as the public statements of politicians in election times. The wise Peircean caveat simply concerns the intellectualistic illusion that indefiniteness is *merely* a hindrance that could somehow be eradicated by analysis or formalization. Not only is relative vagueness needed in order to enable communicational exchange regarding objects of which the parties have divergent experiences, it underlies the entire enterprise of communication and inquiry, because the common ground of any practice is inevitably vague.

Given the focus on incommensurability in recent communication-theoretical discussions of pragmatism (such as Craig, 2007; Russill, 2005), it is of some interest to consider how Peirce's conception of vagueness bears on this issue. The focal worry captured by the notion of incommensurability is that our experiences differ to such an extent that signs that appear to be collective in fact have individual references. Semiotic appearances merely hide incommensurable experiential divides. Rather than communicating, we are in fact speaking past each other; my "George W. Bush" is not the same as yours, and there is no guarantee that the references of any of the signs we use match. However, for the common-sensist Peirce, according to whom experience includes signs and interpretations, this kind of wholesale scepticism is of no genuine concern. This does not mean that he would not recognize the fact that the experiential backgrounds of persons engaged in communicational activity vary and that such divergences can hinder interaction, but instead of succumbing to scepticism, he identifies this variation as a positive force in communication.

The phrase "our experience" is significant. Experience is the course of life, so far as we attend to it. "Our experience," I say, because unless two persons had some experience in common, they could not communicate, at all. If their experience were identical, they could furnish one another no information. But to the experience both have in common, the several experiences of the two connect other occurrences; and so we have shares in a collective experience. An index connects a new experience with former experience. (MS 797:10)

Yet, lest the Peircean camp be accused of inappropriate optimism, it is important to keep in mind on what grounds Peirce proposes to speak of shared experiences. Rather than demanding strict identity of experiences as a prerequisite for communication, the common fund of experiences needed is vaguely delimited and relative to purpose. That is, we need not possess precisely the same experiences in order to be able to discourse about objects such as "George W. Bush," "justice," or "communication." But nor can there be communication without the kind of experiential groundwork that arises from shared practices.

Rhetoric and philosophical communication theory

By establishing the close conceptual connection between purpose, experience, practice, and objects in communication, we have in effect shown how the Peircean pragmatist can address the problem of incommensurability. Through his pioneering work in the logic of vagueness, Peirce provides us with means to avert some of the most wearisome philosophical problems that may haunt any communication theory.

Nonetheless, such rarefied intellectual concerns may seem somewhat distant from the world of contemporary communication inquiry, if not positively outlandish. Thus, it may be appropriate to bring this discussion of the experiential footing of Peirce's theory of signs to a close with a couple of reflections on its broader relevance in the pragmatist context. In particular, I wish to further underscore two potentially important consequences of the Peircean account of communicational experience outlined in this article.

Firstly, as recent efforts to articulate a particularly pragmatist approach in communication theory have focused on incommensurability as a pragmatistic problematic *par excellence*, this reconstructed tradition is in danger of finding itself bogged down by traditional epistemological and ontological difficulties usually associated with the kind of dualistic philosophy that most pragmatists emphatically wish to overcome. In this respect, at least, Peircean semiotics may serve both as a corrective and complement to Jamesian and Deweyan communication theory. James's empiricism, in particular, often leans toward sensationalism in a way that Peirce's philosophy does not. Arguably, the latter offers a more satisfactory conception of experience for communication studies.

Secondly, while the Peircean viewpoint can be employed as an antidote to debilitating scepticism stemming from a narrow conception of experience, a more interesting consequence of the outlined outlook may be that it moves the focus of concern from experience to purpose. This guides us toward one of the most significant but underdeveloped upshots of Peirce's theory of signs—one that may indicate in what direction a pragmatist philosophy of communication ought to be developed. Namely, as worries about incommensurable experiences blocking communication are put aside and experiential divergences are seen in a new light, questions of communicational purposes and ideals take center stage. In other words, the truly pregnant issue concerns the aims and projected consequences of communicational activity—or, to put the matter in a more Peircean manner, what kinds of interpretants we, as sign-users, may engender, and how we can address the problem of conflicting communicational aims. The ultimate goal of the Peircean endeavor ought not be to erect an orderly theory of signs or communication, but to provide heuristic means for criticism of our habits; as Peirce asserts (in a strikingly Deweyan manner) the "continual amelioration of our own habits . . . is the only alternative to a continual deterioration of them" (MS 674:1 [c. 1911]).

Arguably, meliorism, as embraced in some form or other by virtually all the main figures of classical pragmatism, constitutes the heart and soul of a pragmatist philosophy of communication. While Peirce's contribution to this aspect of pragmatism is less obvious than that of Dewey, his account of objective indeterminacy shows how purposes and ideals permeate even outwardly simple communicational exchanges and seemingly dispassionate processes of inquiry. This, in turn, prepares the way for a more systematic semiotic and pragmatistic conception of normative investigation.

Peirce maintains that semiotics, as a whole, is a normative enterprise, supported by aesthetics (*esthetics*) and ethics. In this context, normativity is intimately connected to the criticism of habits. Consequently, Peirce characterizes aesthetics in terms of criticism and control of habits of feeling, ethics in terms of criticism and control of habits of action, and logic in terms of criticism and control of habits of sign use. Thus, semiotics is in fact a special case of ethics—the study of modes of action

involving *criticisable* and *improvable* uses of signs, such as reasoning, interpretation, and communication. Of course, these disciplines are in practice intertwined because the formation of aims and ideals involves all three. A semiotician must, to some extent at least, also be an ethicist and aesthetician.

While the normative character of semiotic inquiry may not be obvious in the grammatical sign definitions and classifications that are sometimes presented as the whole of Peircean sign theory, it is amply evident in the parts that Peirce named *logic proper* (or *critic*) and *rhetoric* (or *methodeutic*). Whereas the former is primarily concerned with habits of reasoning in a narrow sense (hence logic proper), the latter is more broadly concerned with the criticism and improvement of habits of sign production and interpretation. Consequently, Peircean rhetoric is certainly broader in scope than most traditional or contemporary conceptions of rhetoric; it is in fact tempting to identify it as Peirce's philosophy of communication. ³¹ However, Peircean rhetoric is an unfinished project. Indeed, while Peirce boisterously proclaims that rhetoric "is destined to grow into a colossal doctrine which may be expected to lead to most important philosophical conclusions" (CP 3.454 [1896]), his explicit treatments of the subject leave much to be desired, and he seems to waver between a conception of rhetoric as a theory of communication and as a theory of inquiry (i.e., as methodeutic). On the other hand, it may be that these characterizations of rhetoric can prove to be mutually supportive rather than in perniciously divergent. There are, at any rate, many vital analogues between the processes of communication and inquiry, both being communal, experiential, and goal-oriented practices in the Peircean framework. Again, this standpoint is in many respects similar to Dewey's conception of communication and inquiry.

In his most substantial discussion of rhetorical inquiry (the incomplete essay "Ideas, Stray or Stolen, About Scientific Writing"), Peirce defines the third branch of semiotics as "the science of the essential conditions under which a sign may determine an interpretant sign of itself and of whatever it signifies, or may, as a sign, bring about a physical result" (EP 2:326 [1904]). However, not all rhetorical questions are necessarily pursued in philosophy. According to Peirce, there is, as a matter of fact, a universal art of rhetoric, which is concerned with "the general secret of rendering signs effective" (EP 2:326 [1904]). From this art, which ought to include such practical concerns as the teaching of eloquence and the improvement of organizational communications, one may abstract the science of rhetoric, which should investigate the principles of everything that the art covers or could cover.

A different way of summarizing the task of rhetoric is to say that it is concerned with "the relations of signs to their interpretants, that is, their knowledge-producing value" (MS 793:20 [c. 1906]), while grammar is concerned with the nature of possible signs and their combinations (*syntax*) and logic proper focuses on the relation of signs to their objects (their *truth*). It is worth pointing out that such a conception of rhetoric does not involve any *necessary* reference to human subjects. Consequently, such a rhetorical discipline would be broader than the usual notion of a theory of communication. Semiotic rhetoric ought to cover all forms of interpretant

generation, a field only partly comprised by communicational phenomena, at least if "communication" is understood as "human communication."

Why, then, should contemporary communication theorists bother with Peircean rhetoric? In conclusion, I would suggest that there are at least three good reasons to take Peirce's programmatic proposal seriously. Firstly, it offers a unique way to conceptualize the relationship between inquiry and communication; indeed, it seems appropriate to identify these processes and their interconnections as the primary subject matters of philosophical rhetoric. While this may seem to breach the proper boundaries of communication studies, it is at least conceivable that a broader framework, such as is offered by Peircean semiotics, may serve the development of pragmatist communication theory better than a conception strictly restricted to human communication. Secondly, it is in the rhetorical domain that Peirce begins to merge his theory of interpretants with his pragmatistic conception of meaning. This, for certain, is a key component of Peircean semiotics that may provide conceptual tools to overcome certain chasms between structuralist and interpretative paradigms of meaning (cf. Jensen, 1995). Thirdly, by complementing Peircean rhetoric with vital elements of Dewey's theory of inquiry and technology as well as with important insights culled from James and Mead, we may be on the path to assembling a more robust pragmatist philosophy of communication than has been envisaged so far. While this article has mostly focused on preparing the canvas for things to come, I hope it has at least indicated some compelling arguments for including Peirce in the pragmatist tradition of communication theory. There are many more.

Notes

- 1 I use standardized abbreviations in references to collections of Dewey's and Peirce's texts. *MS* refers to an unpublished manuscript written by Peirce. For the other abbreviations, please see "Dewey, J." and "Peirce, C. S." in the list of references at the end of the article.
- 2 If some kind of evidence is needed, it is useful to look at some textbook-type presentations of communication theory. For example, in Miller (2002), Peirce, James, and Dewey get one mention each—all in the same sentence that takes note of the role of pragmatism in Carey's (1989) cultural studies approach. Littlejohn (2002) fares a bit better, giving a paragraph to Peirce and Dewey; albeit the latter is somewhat awkwardly reduced to an influence on the "functional tradition."
- 3 This does not mean that Russill would simply follow in Rorty's footsteps. In contrast to the most radical neopragmatists, Russill strives to articulate pragmatism as a serious *theoretical* option.
- 4 Later, we will encounter Peirce's logic of vagueness. The metaphysical side of Peirce's indeterminism, the "tychism" that inspired James, will not be discussed in this article.
- 5 Peirce divides philosophical semiotics into grammar, critic, and rhetoric. This article does not delve into the reasons and ramifications of this partition, and is mainly focused on matters belonging to Peircean rhetoric, understood as the study of signs in action.
- 6 "Logic" is in this case practically equivalent to semiotics. In his mature phase, Peirce characterized "logic in the broad sense" as semeiotic.
- 7 Peirce classifies logic as a normative science alongside ethics and esthetics.

- 8 Here, "sensationalism" refers to the philosophical doctrine according to which sensory data are the primary or only source of knowledge.
- 9 The letter is dated January 23, 1905.
- 10 This opens up the complex question of what kind of realism Peirce's stance entails, which cannot be addressed properly here. Peirce's emphatic defenses of realism against nominalistic tendencies have sometimes been interpreted as going against the pragmatist grain; I would argue that his position allows for an interpretation of realism that is inclusive—that is, that encompasses the constructive, interpretative, and communal aspect of our habits—and that therefore is more in line with Dewey's pragmatism and Joseph Margolis's constructivist realism than one might at first blush realize. Peirce's realism is, however, not compatible with the kind of minimalistic causal physicalism that fuels Rorty's criticism of epistemology.
- 11 Peirce does, however, make a distinction between the inner and outer worlds as aspects of experience. It does not indicate a division of the world into that known only by one subject and that available to all subjects; as Peirce straightforwardly declares in a letter to James, "you can't find a place where I distinguish the objective & subjective sides of things" (letter dated July 23, 1905). Such a partition would be anathema to a semiotically and pragmatistically informed philosophy.
- 12 Peirce's connection to idealism is a complex topic that will not be addressed here; suffice it to say that he is critical of many aspects of "absolute idealism" as represented by philosophers such as Hegel, Josiah Royce, and F. H. Bradley, while nonetheless calling himself a "conditional idealist."
- 13 This seems to place Peirce in the camp of the "dialogians," which John Durham Peters has critically scrutinized in recent writings (see, in particular, Peters, 1999). It is certainly true that Peirce at times seems to fall into the same trap as Dewey, extolling Socratic dialogue as the ideal norm while ignoring the multitude of communicational sign uses in society. However, the scope of Peirce's theory of signs is definitely not restricted to dialogical interaction. His emphasis on dialogue is at least partly methodological; signs in interactive communication are used as analytical starting points because of their familiarity, complexity, and availability. This does not mean that one-on-one dialogue is the ideal form of all sign use—not even of all such semiotic processes that are ordinarily classified as "communicational." On the other hand, Peirce's approach suggests that the dynamics of dialogue permeates human understanding and self-control, as it involves the interaction of temporally distinguishable selves. See Bergman (2004), for an extensive study of the underpinnings of Peirce's sign-theoretical project; see also Bergman (2000, 2003, 2005).
- 14 This is not to say that we should not seek clearer conceptions of communication; nor do I wish to suggest that "communication" would be an unproblematic concept. As Peters (1999) has convincingly argued, the history of the idea is far more complex and its development more shaped by contingencies than has been hitherto realized. However, it seems reasonable to abstain from specific delimitations, if these require us to choose between viewpoints such as "communication as transmission" and "communication as community," understood as mutually exclusive rivals. Here, I simply assume that the reader and I share a sufficient common ground, that is a set of experiences of a certain indefinite kind, which enables us to talk about the object "communication" in this particular purposive context.

- 15 Peirce, as most pragmatist philosophers, does not accept a sharp distinction between the domains of nature and culture, nor the scientific primacy of the one over the other. In Peirce's system, the psychical sciences (which include most of what we would call the social sciences and the humanities, but not philosophy) are construed as a relatively autonomous branch of "special science," on par with the physical sciences.
- 16 One could of course criticize Peirce's notion of "everyman's hourly experience" (NEM 4:228 [1905–1906]) on the ground that this communal "everyman" is a mere abstraction, a disembodied and genderless fiction. The plausibility of the Peircean position rests on the assumption that human beings are not radically divergent monads caught in their own bubbles of experience. To defend this Peirce would only need to appeal to hope, as in his weak justification for upholding truth as an ideal of inquiry.
- 17 This should not be understood as a straightforward process of transmission, however; as Peirce's broad conception of experience and the notion of common ground show, community is an important ingredient in the Peircean framework. Furthermore, the interactions affect utterer as well as interpreter; ideally, at least, communication can be a practice through which common interpretants (habits of action) are discovered and developed. On the other hand, the general Peircean conception, as outlined here, does not exclude transactions more naturally characterized as transmission or transfer than as communion from the domain of communication. Arguably, this is a strength rather than a weakness.
- 18 "[A]fter an ordinary conversation, a wonderfully perfect kind of sign-functioning, one knows what information or suggestion has been conveyed, but will be utterly unable to say in what words it was conveyed, and often will think it was conveyed in words, when in fact it was only conveyed in tones or in facial expressions" (EP 2:391 [c. 1906]).
- 19 This entails that the Peircean "object" covers generals and various kinds of "stuff" (such as "justice" and "air") as well as singular things.
- 20 Peirce often defines the sign relation in terms of determination: It is a triadic relation, in which the sign is determined by the object in such a way as to determine an interpretant. The meaning of this "determination" is a contested issue in Peirce studies; here, I follow T. L. Short (1981), Liszka (1996), and Joswick (1996) in interpreting the troublesome concept as delimitation or constraint of semiotic possibilities, rather than as emanation (a reading favored by Ransdell, for instance).
- 21 Of course, *B* can misunderstand the sentence in various ways, in spite of possessing sufficient experiential background. There are presumably many men named George Bush in the world; if the reporters and cameras do not lie, there are at least two. As such, the sentence does not specify which one of the men is indicated. *A* may intend to refer to George W. Bush, the 43rd president of the United States, and *B* may possess the required collateral experience of the object in question. Nonetheless, *B* may for some reason think first of president number 41.
- 22 Icons can roughly be characterized as signs that are capable of representation because of properties they possess in themselves irrespective of connections to object or interpretant, while symbols are signs whose capacity to represent depends principally on convention or a similar law.
- 23 Given this conception of semiotic object, it follows that there is no such thing as an absolutely incomprehensible object.

- 24 The difference between Peircean semeiotic and Saussurean semiology is further underlined by Peirce's pragmatist analysis of meaning in terms of habits of action (interpretants that are not strictly speaking signs). This aspect of his sign theory is not addressed in detail in this article.
- Peirce adopted the term "universe of discourse" from Augustus De Morgan, the pioneer of the logic of relations. In Peirce's writings, "universe of discourse" is a technical term that occurs mostly in connection with the logical system known as the existential graphs. However, it is suited for a broader application as well.
- The concepts of "utterer" and "interpreter" do not necessarily refer to individual agents; they are rather whatever may function in a manner similar to an utterer and interpreter in dialogue. Peirce sometimes emphasizes this by speaking of the "quasi-utterer" and the "quasi-interpreter," and follows Plato in conceptualizing thought as an internal dialogue, where different aspects of the self function as utterers and interpreters. Building on this point of view, one could argue that virtually any nonmechanical agent involved in communication functions as utterer and interpreter at all stages of the process; the act of interpretation also involves an active act of utterance to oneself. In this sense, the utterer and the interpreter are analytical abstractions that designate different functions in communicational transactions. Peirce sometimes suggests that the very concepts of object and interpretant are derivable in this way (see Bergman 2003, 2004, 2005 for discussions of this communicational "derivation" of the basic concepts of semeiotic).
- 27 Here, the "world" should be understood broadly, that is, as encompassing anything—whether "fictive" or "real"—that requires some experiential connection, however indirect or distant.
- According to Peirce's logical definition, "anything is *general* insofar as the principle of excluded middle does not apply to it and is *vague* in so far as the principle of contradiction does not apply to it" (EP 2:351 [1905]).
- 29 Peirce often uses "indefiniteness" as a synonym for "vagueness"; its polar opposite is "definiteness." Similarly, the logical converse of "generality" is "individuality." A fully definite and individual sign is said to be "singular." "Singularity" is a limiting case of complete semiotic determinacy that can be only actualized pragmatically, never absolutely.
- 30 The term "control," often employed by Peirce, can be somewhat misleading; it is not meant to suggest direct control by will power, but a more moderate possibility of partial management by criticism of habits by actual or imaginary experimentation. It is to a large extent a question of what kind of habits that we would want to cultivate in ourselves and in a community.
- 31 Peirce's rhetoric does not fit easily into the tradition of that name (but see Liszka, 2000 for an attempt to align Peirce's rhetorical concerns with those of the grand tradition of rhetoric). To a certain degree, Peircean rhetoric would appear to be an expansion of the traditional study, with the name retained to indicate interests broadly speaking similar to those of Aristotle, George Campbell, and Richard Whately. The extension entails breaking away from the domains of speech and composition to an approach that pursues studies of all kinds of signs—iconic and indexical as well as conventional or symbolic—and interpretative effects (interpretants) in a rhetorical mode. While one of its aims certainly is effective communication, Peircean rhetoric is not to be understood simply as a toolbox for persuasion or guide to eloquence. Furthermore, the way Peirce

proposes to wed rhetoric to logic appears to be quite unique, and he seems to be able to avoid the age-old conflict between philosophy and rhetoric (cf. Ijsseling, 1976; Vickers, 1982); at least, his outlook differs markedly from that of philosophers and logicians who have tended to look down on rhetorical pursuits since the days of Plato as well as from that of rhetoricians who have turned the tables and proclaimed the primacy of rhetoric (such as Grassi, 2001). Peirce not only reconciles logic and rhetoric; he redefines logic in such a way that rhetoric is an integral part of semiotic inquiry—nothing less than its "highest and most living branch," if we take his word for it.

References

- Bergman, M. (2000). Reflections on the role of the communicative sign in semeiotic. *Transactions of the Charles S. Peirce Society*, **XXXVI**(2), 225–254.
- Bergman, M. (2003). Peirce's derivations of the interpretant. Semiotica, 144-1/4, 1-17.
- Bergman, M. (2004). Fields of signification: Explorations in Charles S. Peirce's theory of signs. Vantaa: Dark Oy.
- Bergman, M. (2005). C. S. Peirce's dialogical conception of sign processes. *Studies in Philosophy and Education*, **24**(3–4), 213–233.
- Braun, J. E. (1981). The "speculative rhetoric" of Charles Sanders Peirce. *Philosophy and Rhetoric*, **14**(1), 1–15.
- Brock, J. (1981). The origin and structure of Peirce's logic of vagueness. In A. Lange-Seidl (Ed.), *Zeichenkonstitution*, *band I* (pp. 133–138). Berlin: Walter de Gruyter.
- Carey, J. W. (1989). Communication as culture: Essays on media and society. Boston: Unwin Hyman.
- Colapietro, V. M. (1989). *Peirce's approach to the self: A semiotic perspective on human subjectivity*. Albany: State University of New York Press.
- Colapietro, V. M. (1995). Immediacy, opposition, and mediation: Peirce on irreducible aspects of the communicative process. In L. Langsdorf & A. R. Smith (Eds.), *Recovering pragmatism's voice: The classical tradition, Rorty, and the philosophy of communication* (pp. 23–48). Albany: State University of New York Press.
- Colapietro, V. M. (2004). Toward a truly pragmatic theory of signs: Reading Peirce's semeiotic in light of Dewey's gloss. In E. L. Khalil (Ed.), *Dewey, pragmatism, and economic methodology* (pp. 102–129). London: Routledge.
- Colapietro, V. M. (2006). Practice, agency, and sociality: An orthogonal reading of classical pragmatism. *International Journal of Dialogical Science*, **1**(1), 23–31.
- Craig, R. T. (2007). Pragmatism in the field of communication theory. *Communication Theory*, **17**(2), 125–145.
- Crick, N. (2005). John Dewey and the art of communication. Unpublished PhD thesis, University of Pittsburgh.
- Dewey, J. (1976–1983). *The middle works of John Dewey, 1899–1924 (MW)*. Carbondale: Southern Illinois University Press.
- Dewey, J. (1981–1989). *The later works of John Dewey, 1925–1953 (LW)*. Carbondale: Southern Illinois University Press.
- Fiske, J. (1990). Introduction to communication studies (2nd ed.). London: Routledge.
- Grassi, E. (2001). *Rhetoric as philosophy: The humanist tradition*. Carbondale: Southern Illinois University Press.

- Habermas, J. (1995). Peirce and communication. In K. L. Ketner (Ed.), *Peirce and contemporary thought: Philosophical inquiries* (pp. 243–266). New York: Fordham University Press.
- Hardt, H. (1992). *Critical communication studies: Communication, history and theory in America*. London: Routledge.
- Hickman, L. A. (2001). *Philosophical tools for technological culture: Putting pragmatism to work*. Bloomington: Indiana University Press.
- Ijsseling, S. (1976). Rhetoric and philosophy in conflict. The Hague: Martinus Nijhoff.
- Jensen, K. B. (1991). When is meaning? Communication theory, pragmatism, and mass media reception. In J. Anderson (Ed.), *Communication yearbook* (Vol. 14, pp. 3–32). Newbury Park: Sage.
- Jensen, K. B. (1995). The social semiotics of mass communication. London: Sage.
- Johansen, J. D. (1993a). *Dialogic semiosis: An essay on signs and meaning*. Bloomington: Indiana University Press.
- Johansen, J. D. (1993b). Let sleeping signs lie: On signs, objects, and communication. *Semiotica*, **97**(3/4), 271–295.
- Joswick, H. (1996). The object of semeiotic. In V. M. Colapietro & T. M. Olshewsky (Eds.), *Peirce's doctrine of signs: Theory, applications, and connections* (pp. 93–102). Berlin: Mouton de Gruyter.
- Langsdorf, L., & Smith, A. R. (Eds.) (1995a). *Recovering pragmatism's voice: The classical tradition, Rorty, and the philosophy of communication.* Albany: State University of New York Press.
- Langsdorf, L., & Smith, A. R. (1995b). The voice of pragmatism in contemporary philosophy of communication. In L. Langsdorf & A. R. Smith (Eds.), *Recovering pragmatism's voice: The classical tradition, Rorty, and the philosophy of communication* (pp 1–22). Albany: State University of New York Press.
- Liszka, J. J. (1996). *A general introduction to the semeiotic of Charles Sanders Peirce*. Bloomington: Indiana University Press.
- Liszka, J. J. (2000). Peirce's new rhetoric. *Transactions of the Charles S. Peirce Society*, **XXXVI**(4), 439–476.
- Littlejohn, S. W. (2002). *Theories of human communication* (7th ed.). Albuquerque: Wadsworth.
- Lyne, J. R. (1980). Rhetoric and semiotic in C. S. Peirce. *Quarterly Journal of Speech*, **66**(2), 155–168.
- Lyne, J. R. (1982). C. S. Peirce's philosophy of rhetoric. In B. Vickers (Ed.), *Rhetoric revalued* (pp. 267–276). Binghampton: Center for Medieval & Early Renaissance Studies.
- Miller, K. (2002). *Communication theories: Perspectives, processes, and contexts.* Boston: McGraw-Hill.
- Moriarty, S. (1996). Abduction and a theory of visual interpretation. *Communication Theory*, **6**(2), 167–187.
- Peirce, C. S. (1931–1958). C. Hartshorne & P. Weiss (Vols. 1–6), & A. Burks (Vols. 7–8). Collected papers of Charles S. Peirce (CP) (8 vols). Cambridge, MA: Harvard University Press.
- Peirce, C. S. (1976). C. Eisele (Ed.), *The new elements of mathematics (NEM)* (4 vols). The Hague: Mouton Publishers.
- Peirce, C. S. (1977). C. S. Hardwick (Ed.), Semiotic and significs: The correspondence between Charles S. Peirce and Victoria Lady Welby (SS). Bloomington: Indiana University Press.

- Peirce, C. S. (1982–to date). The Peirce Edition Project (Ed.), *Writings of Charles S. Peirce: A chronological edition (W)* (6 vols). Bloomington: Indiana University Press.
- Peirce, C. S. (1992). K. L. Ketner (Ed.), Reasoning and the logic of things: The Cambridge conferences lectures of 1898 (RLT). Cambridge: Harvard University Press.
- Peirce, C. S. (1992–1998). N. Houser & C. Kloesel (vol. 1), The Peirce Edition Project (vol. 2)(Eds.), *The essential Peirce: Selected philosophical writings (EP)* (2 vols.) Bloomington: Indiana University Press.
- Perry, D. K. (Ed.) (2001). In American pragmatism and communication research. Mahwah: Lawrence Erlbaum Associates.
- Peters, J. D. (1999). *Speaking into the air: A history of the idea of communication*. Chicago: University of Chicago Press.
- Pietilä, V. (2005). *On the highway of mass communication studies*. Cresskill: Hampton Press. Prawat, R. S. (2001). Dewey and Peirce, the philosopher's philosopher. *Teacher's College Record*, **103**(4), 667–721.
- Ransdell J. (1997). *Is Peirce a phenomenologist?* Retrieved October 30, 2001, from ARISBE, http://www.cspeirce.com/menu/library/aboutcsp/ransdell/phenom.htm. (Article originally published in 1989 in *Études Phénoménologiques*, 9–10, pp. 51–75, trans. into French by A. De Tienne.)
- Ransdell, J. (1998). *Sciences as communicational communities*. Retrieved October 30, 2001, from ARISBE, http://www.cspeirce.com/menu/library/aboutcsp/ransdell/physics.htm.
- Rorty, R. (1982). *The consequences of pragmatism*. Minneapolis: University of Minnesota Press.
- Russill, C. (2004). *Toward a pragmatist theory of communication*. Unpublished doctoral dissertation, The Pennsylvania State University.
- Russill, C. (2005). The road not taken: William James's radical empiricism and communication theory. *Communication Review*, **8**, 277–305.
- Sandbothe, M. (2001). *Pragmatische Medienphilosophie. Grundlegung einer neuen Disziplin im Zeitalter des Internet.* Weilerswist: Velbrück Wissenschaft. (English translation available at: http://www.sandbothe.net/pmp.pdf.)
- Schiller, D. (1996). *Theorizing communication: A history*. New York: Oxford University Press. Schrøder, K. C. (1994a). Audience semiotics, interpretive communities and the "ethnographic turn" in media research. *Media, Culture and Society*, **16**(2), 337–347.
- Schrøder, K. C. (1994b). Media language and communication. In R. E. Asher (Ed.), *The encyclopedia of language and linguistics* (Vol. 5. pp. 2412–2420). Oxford: Pergamon Press.
- Short, T. L. (1981). Semeiosis and intentionality. *Transactions of the Charles S. Peirce Society*, **XVII**(3), 197–223.
- Simonson, P. (2001). Varieties of pragmatism and communication: Visions and revisions from Peirce to Peters. In D. K. Perry (Ed.), *American pragmatism and communication research* (pp. 1–26). Mahwah: Lawrence Erlbaum Associates.
- Vickers, B. (1982). Territorial disputes: Philosophy versus rhetoric. In B. Vickers (Ed.), *Rhetoric revalued* (pp. 247–266). Binghampton: Center for Medieval & Early Renaissance Studies.