



Semiotics

Paul Kockelman

12.1 INTRODUCTION¹

Charles Sanders Peirce (1839-1914) was an American philosopher, mathematician and logician. To sociolinguists, he is perhaps best known for his theory of semiotics, with its focus on logic and nature, and the ways this contrasted with Saussure's semiology, with its focus on language and convention. In particular, he foregrounded iconic and indexical relations between signs and objects, theorizing the way meaning is motivated and context-bound. And he foregrounded inferential relations between signs and interpretants, foregrounding the role of abduction (or hypothesis) over deduction, and thereby the role of context over code. He inspired Roman Jakobson's (1990) understanding of the role of shifters in language which has provided a central insight for two decades of linguistic anthropology and discourse analysis: for example, Haliday and Hasan (1976) on cohesion, Brown and Gilman (1972 [1960]) on pronouns, and Silverstein (1995 [1976]) and Hanks (1990) on social and spatial deixis. He inspired George Herbert Mead's (1934) understanding of the relation between selves and others, as generated by the unfolding of gestures and symbols which grounded influential ideas in philosophy and biosemiosis (Morris 1938; Sebeok and Umiker-Sebeok, 1992), conversational analysis (Sachs, Schegloff and Jefferson, 1974), sociolinguistics (Goffman, 1959; Labov, 1966), and even speech act theory (Austin, 2003 [1955]; Searle, 1969).

This chapter explicates key terms from semiotics and pragmatics, and uses these to reconceptualize the relation between mental states, social statuses and speech acts. Section 12.2 lays out the

fundamental features of semiotic processes through the lens of Peirce's lexicon: sign, object, interpretant; iconic, indexical, symbolic; and so forth. It differs from the usual summaries of Peirce by focusing on the interpretant (in contrast to the sign or object), and by focusing on inference (in contrast to indexicality). Section 12.3 uses these concepts to reframe the nature of social relations and cognitive representations. Starting out from the work of the Boasian, Ralph Linton, it theorizes social statuses and mental states through the lens of semiosis and intersubjectivity. Section 12.4 uses this reframing to recast performativity and agency. By reading Mead through the lens of Peirce, and reading Austin through the lens of Mead, it widens our understanding of the efficacity of speech acts to include sign events more generally.

12.2 SEMIOSIS: THE PUBLIC FACE OF COGNITIVE PROCESSES

Semiotics is the study of semiosis, or 'meaning,' a process which involves three components: 'signs' (whatever stands for something else); 'objects' (whatever a sign stands for); and 'interpretants' (whatever a sign creates insofar as it stands for an object) – see Table 12.1 (column 2).

In particular, any **semiotic process** relates these three components in the following way: a sign stands for its object on the one hand, and its interpretant on the other, in such a way as to make the interpretant stand in relation to the object corresponding to its own relation to the object







Table 12.1 Typology of distinctions (semiosis)

Categories	Semiotic process	Sign	Ground	Interpretant	Social relation	Agent	Community
Firstness	Sign	Qualisign	Iconic	Affective	Role	Control	Commonality
Secondness	Object	Sinsign (token)	Indexical	Energetic	Status	Compose	Contrast
Thirdness	Interpretant	Legisign (type)	Symbolic	Representational	Attitude	Commit	Consciousness

(see Peirce, 1931–35). What is at issue in meaningfulness, then, is not one relation between a sign and an object (qua 'standing for'), but rather a relation between two such relations (qua 'correspondence'). The logic of this **relation between relations** is shown in Figure 12.1.

For example, 'joint-attention' is a semiotic process. In particular, a child turning to observe what her father is observing, or turning to look at where her mother is pointing, involves an interpretant (the child's change of attention), an object (what the parent is attending to, or pointing towards) and a sign (the parent's direction of attention, or gesture that directs attention). As Mead noted (1934), any interaction is a semiotic process. For example, if I pull back my fist (first phase of an action, or the sign), you duck (reaction, or the interpretant) insofar as my next move (second phase of action, or the object) would be to punch you. Generalizing interaction, the 'pair-part structures' of everyday interaction the fact that questions are usually followed by answers, offers by acceptances, commands by undertakings, assessments by agreements, and so forth (Goffman, 1981; Sachs et al., 1974) - consist of semiotic processes in which two components

(the sign and interpretant) are foregrounded. In particular, a type of utterance (or action) gives rise to another type of utterance (or action) insofar as it is understood to express a proposition (or purpose).

Indeed, the constituents of so-called 'material culture' are semiotic processes (Kockelman, 2006a). For example, an 'affordance' is a semiotic process whose sign is a natural feature, whose object is a purchase, and whose key interpretant is an action that heeds that feature, or an instrument that incorporates that feature (so far as the feature 'provides purchase'). For example, walking carefully over a frozen pond (as an action) is an interpretant of the purchase provided by ice (as an affordance), insofar as such a form of movement heeds the slipperiness of ice. An 'instrument' is a semiotic process whose sign is an artificed entity, whose object is a function, and whose key interpretant is an action that wields that entity, or another instrument that incorporates that instrument (so far as it 'serves a function'). For example, a knife (as an instrument) is an interpretant of the purchase provided by steel (as another instrument), insofar as such a tool incorporates the hardness and sharpness of steel.

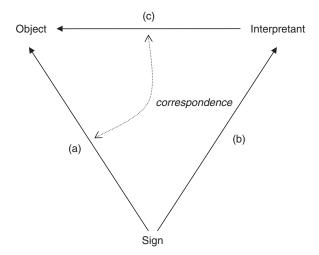


Figure 12.1 Semiosis as a Relation between Relations. A sign stands for its object on the one hand (a), and its interpretant on the other (b), in such a way as to bring the latter into a relation to the former (c), **corresponding** to its own relation to the former (a).





Notice from these examples that signs can be eye-directions, pointing gestures, utterances, controlled behaviours, environmental features and artificial entities. Objects can be the focus of attention, purposes, propositions and functions. And interpretants can be other utterances, changes in attention, reactions, instruments, and heeding and wielding actions. Notice that very few of these interpretants are 'in the minds' of the interpreters; yet all of these semiotic processes embody properties normally associated with mental entities: attention, desire, purpose, propositionality, thoughts and goals. Notice that very few of these signs are addressed to the interpreters (in the sense of purposely expressed for the sake of their interpretants) – so that most semiotic processes (such as wielding an instrument) are not intentionally communicative. And notice how the interpretant component of each of these semiotic processes is itself the sign component of an incipient semiotic process - and hence the threefold relationality continues indefinitely.

While many theorists take semiotic objects to be relatively 'objective' (things like oxen and trees), these examples show that most objects are relatively intersubjective (a shared perspective, turning on correspondence, in regard to a relatively intangible entity – such as a proposition or purpose). An object, then, is whatever a signer and interpreter can correspondingly stand in relation to - it need not be continuously present to the senses, taking up volume in space, detachable from context, or 'objective' in any other sense of the word. And while many theorists take interpretants – if they consider them at all – to be relatively 'subjective' (say, a thought in the mind of an addressee), these examples show that most interpretants are as objective as signs. Indeed, it may be argued that the typical focus on sign-object relations (or 'signifiers' and 'signifieds'), at the expense of sign-interpretant relations, and this concomitant understanding of objects as 'objective' and interpretants as 'subjective' - and hence the assimilation of meaning to mind, rather than grounding mind in meaning – is the fatal flaw of twentieth-century semiotics (Kockelman, 2005, 2006a). These claims will be further fleshed out in what follows.

Peirce theorized three kinds of signs (1955a). A 'qualisign' is a quality that could possibly be paired with an object: i.e. any quality that is accessible to the human sensorium – and hence could be used to stand for something else (to someone). A 'sinsign' is a quality that is actually paired with an object (in some event) and is sometimes referred to as a 'token'. A 'legisign' is a type of

quality that must necessarily be paired with a type of object (across all events) and is sometimes referred to as a 'type' – see Table 12.1 (column 3).

For example, in the case of utterances, a qualisign is a potential cry (say, what is conceivably utterable by a human voice); a sinsign is an actual cry (say, the interjection *ouch* uttered at a particular time and place); and a legisign is a type of cry (say, the interjection *ouch* in the abstract, or what every token of *ouch* has in common as a type).

Any sinsign that is a token of a legisign as a type may be called a 'replica'. Replicas, then, are just run-of-the mill sinsigns: any utterance of the word *ouch*. And, in keeping within this Peircean framework, we might call any unreplicable or unprecedented sinsign a 'singularity' – that is, any sinsign that is not a token of a type. Singularities, then, are one-of-a-kind sinsigns: e.g., Nixon's resignation speech. One of the key design features of language may be stated as follows: given a finite number of replicas (qua individual signs as parts), speakers may create an infinite number of singularities (qua aggregates of signs as wholes).

Given the definition of semiotic process offered above, the object of a sign is really that to which all (appropriate and effective) interpretants of that sign correspondingly relate (Kockelman, 2005). Objects, then, are relatively abstract entities by definition. They should not be confused with 'objects' in the Cartesian sense of res extensa. Nor should they be confused with the 'things' that words seem to stand for. Indeed, it is best to think of the object as a 'correspondence-preserving projection' from all interpretants of a sign. It may be more or less precise, and more or less consistent, as seen by the dotted portion of Figure 12.2.

For example, if a cat's purr is a sign, the object of that sign is a correspondence-preserving projection from the set of behaviours (or interpretants) humans may or must do (within some particular community) in the context of, and because of, a cat's purr: pick it up and pet it; stroke in under the chin; exclaim, 'Oh, that's so cute!'; offer a sympathetic low guttural; stay seated, petting it even when one needs to pee; and so on. Needless to say, humans tend to objectify such objects by glossing them in terms of physiology (say, the 'purr-organ' has been activated), emotion (say, 'she must be content'), or purpose (say, 'she wants me to continue petting her').

While the abstract nature of objects is clearly true for semiotic processes like instruments and actions, it is less clearly true for words like 'cat,' or utterances such as 'the ball is on the table,' which seem to have 'objects' (in the Cartesian sense) as their objects (in the semiotic sense).







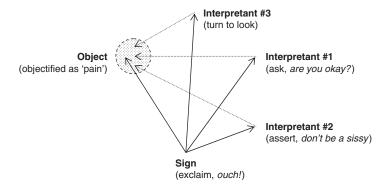


Figure 12.2 Object as Correspondence-Preserving Projection. The object of a sign is that to which all appropriate and effective interpretants of that sign correspondingly relate. It may be understood as a correspondence-preserving projection from all interpretants.

In order to understand the meaning of such signs, several more distinctions need to be made. First, just as there are sin-signs (or sign tokens) and legisigns (or sign types), there are 'sin-objects' and 'legi-objects'. Thus, an assertion (or a sentence with declarative illocutionary force - say, 'the dog is under the table') is a sign whose object type is a **proposition**, and whose object token is a state of affairs. A word (or a substitutable lexical constituent of a sentence - say, 'dog' and 'table') is a sign whose object type is a concept, and whose object token is a **referent**. Finally, the set of all possible states of affairs of an assertion - or what the assertion could be used to represent may be called an 'extension'. And the set of all possible referents of a word - or what the word could be used to refer to - may be called a 'category' - see Table 12.2. As is well known, many battles have been fought over the vector of mediation: words mediating concepts and categories ('nominalism'); concepts mediating words and categories ('conceptualism'); and categories mediating words and concepts ('realism'). In general, contributions come from all sides.

Unlike other object types (say, the general function of a hammer across wieldings, or the general cause of a scream across utterances), propositions (and concepts) are inferentially articulated. In particular, there is a key species of conditional relationality which may be called

Table 12.2 The objects of inferentially articulated signs

Sign	Sentence	Word
Object (type)	Proposition	Concept
Object (token)	State of affairs	Referent
Object (set of tokens)	Extension (world)	Category

logical relationality, where the object in question relates interpretants via inferential articulation (material and formal deduction and induction). And, hand in hand with this inferential articulation, unlike other object tokens (say, the specific function of a hammer as wielded on some particular occasion, or the specific cause of a scream uttered on some particular occasion), states of affairs and referents are 'objective' - in that there seem to be actual events that an assertion 'represents,' or actual things that a word 'refers to'. In short, as will be further developed below, sentences and words have the property of aboutness that characterizes intentional phenomena more generally – not only speech acts like assertions and promises but also 'mental states' like beliefs and intentions. While all signs have a property of directedness by definition (i.e. they stand for objects), signs whose objects are propositions have received extensive characterization - for their objects seem to be 'of the world', and so metaphysical worries about mind-world mediation can flourish.

In Peircean semiotics, the relation between the sign and object is fundamental, and is sometimes referred to as the 'ground' (Parmentier, 1994: 4; Peirce, 1955a). Famously, in the case of **symbols**, this relation is arbitrary, and is usually thought to reside in 'convention'. Examples include words like *boy* and *run*. In the case of **indices**, this relation is based in spatiotemporal and/or causal contiguity. Examples include exclamations like 'ouch!' and symptoms like fevers. And in the case of **icons**, this relation is based in similarity of qualities (such as shape, size, colour or texture). Examples include portraits and diagrams.





Notice, then, that the exact same object may be stood for by a symbol (say, the word *dogs*), an index (say, pointing to a dog), or an icon (say, a picture of a dog). When Saussure speaks of the 'arbitrary' and the 'motivated' (1983 [1916]), he is really speaking about semiotic processes whose sign-object relations are relatively symbolic vs relatively iconic-indexical – see Table 1 (column 4).

Another sense of motivated is the type of regimentation that keeps a sign-object-interpretant relation in place – be it grounded in norms, rules, laws, causes and so on. In particular, for an entity to have **norms** requires two basic capacities: it must be able to imitate the behaviour of those around it, as they are able to imitate its behaviour; and it must be able to sanction the (non-) imitative behaviour of those around it, and be subject to their sanctions (Brandom, 1979; Haugeland, 1998; Sapir, 1985 [1927]). Norms, then, are embodied in dispositions: one behaves a certain way because one is disposed to behave that way; and one is so disposed because of imitation and sanctioning. While **rules** presuppose a normative capacity, they also involve a linguistic ability: a rule must be formulated in some language (oral or written); and one must 'read' the rule, and do what it says because that's what it says (Haugeland, 1998: 149). Rules, then, are like recipes; following a rule is like following a recipe; and to have and follow rules requires a linguistic ability. As used here, 'laws' are rules that are promulgated and enforced by a political entity – say, following Weber (1978: 54), an organization with a monopoly on the legitimate use of force within a given territory. Laws, then, typically make reference to the threat of violence within the scope of polity. Notice, then, that laws presuppose rules, and rules presuppose norms. Sometimes when scholars speak about motivation, they mean iconic and indexical grounds rather than symbolic ones; and sometimes they mean regimentation by natural causes rather than cultural norms (rules, laws or conventions). The issues are clearly related; but they should not be conflated.

Peirce distinguished between immediate objects and dynamic objects. By the 'immediate object', he means 'the object as the sign itself represents it, and whose Being is thus dependent upon the representation of it in the Sign' (4.536, cited in Colapietro, 1989: 15). This is to be contrasted with the 'dynamic object', which Peirce takes to be 'the Reality which by some means contrives to determine the Sign to its Representation' (ibid.). In short, the dynamic object is the object that determines the existence of the sign; and the immediate object is the object represented by the sign. Immediate objects only exist by virtue of the signs that represent them, whereas dynamic

objects exist independently of the signs that stand for them.

Importantly, every sign has both an immediate and a dynamic object, and hence involves both a vector of representation and a vector of determination. In certain cases, these immediate and dynamic objects can overlap - as least in lay understandings. For example, an interjection 'ouch!' or a facial expression of pain may be understood as determined by pain (as their dynamic objects) and as representing pain (as their immediate objects): one only knows about another's pain through their cry; yet their pain is what caused that cry. Indeed, a 'symptom' should really be defined as a sign whose immediate object is identical to its dynamic object. Dynamic objects, needless to say, often bear a primarily (iconic) indexical relation to their signs, whereas immediate objects often bear a primarily (indexical) symbolic relation to their signs. However, just as any third is symbolic, indexical and iconic, so any sign is partially determined (having a dynamic object) and partially representing (having an immediate object). Stereotypically, however, one takes the grounds of signs to be symbolic and representing, rather than (iconic) indexical and determining.

Reframing Grice's insights (1989; and see Strawson, 1954) in a semiotic idiom, there are at least four objects of interest in non-natural meaning:

- 1 My intention to direct your attention to an object (or bring an object to your attention).
- 2 The object that I direct your attention to (or bring to your attention).
- 3 My intention that you use (2), usually in conjunction with (1), to attend to another object.
- 4 The object that you come to attend to.

There are several ways of looking at the details of this process. Focusing on the relation between (2) and (4), there are two conjoined semiotic processes, the first as means and the second as ends. Using some kind of pointing gesture as a sign, I direct your attention to some relatively immediate object in concrete space (indexically recoverable); and this object, or any of its features, is then used as a sign to direct your attention to some relatively distal object in abstract space (inferentially recoverable). In other words, the first sign (whatever initially points) is a 'way marker' in a relatively concrete environment; and the second sign (whatever is pointed to by the first sign, and subsequently points) is a 'way marker' in a relatively abstract environment. Loosely speaking, if the first sign causes one's head to turn, the second sign,







itself the object of the first sign, causes one's mind to search. Relatively speaking, the first path taken is maximally concrete-indexical; and the second path taken is maximally abstract-inferential.

Objects (2) and (4), then, are relatively foregrounded. They are immediate objects in Peirce's sense: objects which signs represent (and hence which exist because the sign brought some interpreter's attention to them). Objects (1) and (3) are, in contrast, relatively backgrounded. They are dynamic objects: objects which give rise to the existence of signs (and hence which are causes of, or reasons for, the signer having expressed them). In other words, whenever someone directs our attention there are two objects: as a foregrounded, immediate object, there is whatever they direct our attention to (2); and as a backgrounded, dynamic object, there is their intention to direct our attention (1). Grice's key insight is that, for a wide range of semiotic processes, my interpretant of your dynamic object is a condition for my interpretant of your immediate object. In other words, learning of your intention to communicate is a key resource for learning what you intend to communicate. Loosely speaking, whereas the object is revealed by what the point ostends (or by what the utterance represents), the intention is revealed by the act of pointing (or by the act of uttering).

While many anthropologists are familiar with Peirce's distinction between icons, indices and symbols, most are not familiar with his threefold typology of interpretants – and so these should be fleshed out in detail. In particular, as inspired by Peirce, there are three basic types of interpretants (1955c: 276-7; Kockelman, 2005). An 'affective interpretant' is a change in one's bodily state. It can range from an increase in metabolism to a blush, from a feeling of pain to a feeling of being off-balance, from sweating to an erection. This change in bodily state is itself a sign that is potentially perceptible to the body's owner, or others who can perceive the owner's body. And, as signs themselves, these interpretants may lead to subsequent, and perhaps more developed, interpretants. 'Energetic interpretants' involve effort, and individual causality; they do not necessarily involve purpose, intention or planning. For example, flinching at the sound of a gun is an energetic interpretant; as is craning one's neck to see what made a sound; as is saluting a superior when she walks by; as is wielding an instrument (say, pounding in a nail with a hammer); as is heeding an affordance (say, tiptoeing on a creaky floor). And 'representational interpretants' are signs with propositional content, such as an assertion (or explicit speech act more generally). Thus, to describe someone's movement as he raised his hand, is to offer an interpretant of such a controlled behaviour (qua sign) so far as it has a purpose (qua object). And hence while such representations are signs (that may be subsequently interpreted), they are also interpretants (of prior signs). Finally, it should be emphasized that the same sign can lead to different kinds of interpretants - sometimes simultaneously and sometimes sequentially. For example, upon being exposed to a violent image, one may blush (affective interpretant), avert one's gaze (energetic interpretant), or say 'that shocks me' (representational interpretant) – see Table 12.1 (column 5).

Finally, each of these three types of interpretants may be paired with a slightly more abstract double, known as an ultimate interpretant (cf. Peirce, 1955c: 277). In particular, an 'ultimate affective interpretant' is not a change in bodily state per se, but rather a disposition to have one's bodily state change - and hence is a disposition to express affective interpretants (of a particular type). Such an interpretant, then, is not itself a sign, but is only evinced in a pattern of behaviour (as the exercise of that disposition). Analogously, an 'ultimate energetic interpretant' is a disposition to express energetic interpretants (of a particular type). In short, it is a disposition to behave in certain ways - as evinced in purposeful and nonpurposeful behaviours. And finally, an 'ultimate representational interpretant' is the propositional content of a representational interpretant, plus all the propositions that may be inferred from it, when all of these propositions are embodied in a change of habit, as evinced in behaviour that conforms to these propositional contents. For example, a belief is the quintessential ultimate representational interpretant: in being committed to a proposition (i.e. 'holding a belief'), one is also committed to any propositions that may be inferred from it; and one's commitment to this inferentially articulated set of propositions is evinced in one's behaviour: what one is likely or unlikely to do or say insofar as it confirms or contradicts these propositional contents. Notice that these ultimate interpretants are not signs in themselves: while they dispose one toward certain behaviours (affective, energetic, representational), they are not the behaviours per se – but rather dispositions to behave in certain ways. Ultimate interpretants are therefore a very precise way of accounting for a habitus: which, in some sense, is just an ensemble of ultimate interpretants as embodied in an individual, and as distributed among members of a community (cf. Bourdieu, 1977 [1972]).







While such a six-fold typology of interpretants may seem complicated at first, it should accord with one's intuitions. Indeed, most emotions really involve a complicated bundling together of all these types of interpretants (Kockelman, 2006b). For example, upon hearing a gunshot (as a sign), one may be suffused with adrenaline (affective interpretant); one might make a frightened facial expression (relatively non-purposeful energetic interpretant); one may run over to see what happened (relatively purposeful energetic interpretant); and one might say 'that scared the hell out of me' (representational interpretant). Moreover, one may forever tremble at the sight of the woods (ultimate affective interpretant); one may never go into that part of the woods again (ultimate energetic interpretant); and one might forever believe that the woods are filled with dangerous men (ultimate representational interpretant). In this way, most so-called emotions may be decomposed into a bouquet of more basic and varied interpretants. And, in this way, the seemingly most subjective forms of experience are reframed in terms of their intersubjective effects.

Putting all the foregoing ideas together, a set of three-fold distinctions may be enumerated. First, any semiotic process has three components: sign, object, interpretant. There are three kinds of signs (and objects): quali-, sin- and legi-. There are three kinds of sign-object relations, or grounds: iconicity (quality), indexicality (contiguity) and symbolism (convention). And there are three kinds of interpretants: affective, energetic and representational (along with their ultimate variants). Finally, Peirce's categories of firstness, secondness and thirdness (1955b), while notoriously difficult to define, are best understood as genus categories, which include the foregoing categories as species – see Table 12.1 (column 1). In particular, firstness is to secondness is to thirdness, as sign is to object is to interpretant, as iconic is to indexical is to symbolic, as affective is to energetic is to representational. Thus, firstness relates to sense and possibility; secondness relates to force and actuality; and thirdness relates to understanding and generality. Indeed, given that thirdness presupposes secondness, and secondness presupposes firstness, Peirce's theory assumes that human-specific modes of semiosis (thirdness per se) are grounded in modes of firstness and secondness. Peirce's pragmatism, then, is a semiotic materialism - one in which meaning is as embodied and embedded as it is 'enminded'.

12.3 SOCIAL RELATIONS AND COGNITIVE REPRESENTATIONS

Ultimate (representational) interpretants deserve further theorization. For the Boasian, Ralph Linton (1936), a 'status' (as distinct from the one who holds it) is a collection of rights and responsibilities attendant upon inhabiting a certain position in the social fabric: i.e. the rights and responsibilities that go with being a parent or child, a husband or wife, a citizen or foreigner, a patrician or plebian, and so forth. A 'role' is any enactment of one's status: i.e. the behaviour that arises when one puts one's status into effect by acting on one's rights and according to one's responsibilities. And, while untheorized by Linton, we may define an 'attitude' as another's reaction to one's status by having perceived one's role. Many attitudes, then, are themselves statuses: upon inferring your status (by perceiving your role), I adopt a complementary status.

Roles, statuses and attitudes, then, are three components of the same semiotic process – mapping onto signs, objects and interpretants, respectively - see Table 12.1 (column 6). Indeed, one cannot perceive a status (which is just a collection of rights and responsibilities); one can only infer a status from a role (any enactment of those rights and responsibilities); and one may therefore adopt an attitude towards a status. In this way, a status may be understood in terms similar to an ultimate interpretant: a disposition or propensity to signify and interpret in certain ways. A role may be understood as any sign of one's propensity to signify and interpret in particular ways - itself often a particular mode of signifying or interpreting. And an attitude, qua complementary status, may itself just be an embodied sense of what to expect from another, itself often an ultimate interpretant, where this embodied sense is evinced by being surprised by or disposed to sanction non-expected behaviours. The basic process is therefore as follows: we perceive others' roles; from these perceived roles, we infer their statuses; and from these inferred statuses, we anticipate other roles from them which would be in keeping with those statuses. In short, a status is modality personified, a role is personhood actualized, and an attitude is another's persona internalized. Here, then, we may understand social relations in terms of semiotic processes.

With these basic definitions in hand, several finer distinctions may be introduced, and several caveats may be established. First, Linton focused







on rights and responsibilities, with no indication of how these were to be regimented. For present purposes, the modes of permission and obligation that make up a status may be regimented by any number of means: while typically grounded in norms (as commitments and entitlements), they may also be grounded in rules (as articulated norms) or laws (as legally-promulgated and politically-enforced rules).

While the three classic types of status come from the politics of Aristotle (husband/wife, master/slave, parent/child), statuses are really much more varied and much more basic. For example, kinship relations involve complementary statuses: aunt/niece, father-in-law/daughter-in-law, and so forth. Positions in the division of labour are statuses: spinner, guard, nurse, waiter, etc. Positions within civil and military organizations are statuses: CEO, private, sergeant, secretary. Goffman's 'participant roles' (1981) are really statuses: speaker and addressee; participant and bystander. What Marx called the 'dramatis personae' of economic processes (1967: 113) are also statuses: buyer and seller, creditor and debtor, broker and proxy. Social categories of the more colourful kind are statuses: geek, stoner, slut, bon vivant, as are social categories of the more political kind: male, black, Mexican, rich, gay. Finally, and quite crucially, any form of possession is a status: one has rights to, and responsibilities for, the possession in question: i.e. to own a home (qua use-value), or have \$50.00 (qua exchange-value), is a kind of status.

Just as the notion of status can be quite complicated, so can the role that enacts it. In particular, a role can be any normative practice – and hence anything that one does or says, any sign that one purposely gives or unconsciously gives off (cf. Goffman, 1959). It may range from wearing a particular kind of hat to having a particular style of beard, from techniques of the self to regional cooking, from standing at a certain point in a soccer field to sitting at a certain place at a dinner table, from deferring judgment to a certain set of people to praying before certain icons, from having various physical traits to partying on certain dates, from

expressing certain desires to espousing certain beliefs. More generally, a role can be any sign that one gives (off) for others to interpret, and any interpretant of the signs others give (off).

Just as statuses are no more mysterious than any other object, attitudes are no more mysterious than any other interpretant. Hence attitudes may be affective interpretants (blushing when you learn your date used to be a porn star), energetic interpretants (reaching for your pistol when you learn your date is a bounty hunter), or representational interpretants (saying 'you can't be serious' when your date makes his or her intentions known). In particular, attitudes may themselves be ultimate interpretants, and hence statuses: i.e. my status might be regimented by others' attitudes towards my status, which are themselves just statuses.

Given that others may use any sign or interpretant that one expresses as a means to infer one's status, and given that one inhabits a multitude of constantly changing statuses, there is much ambiguity: not only does the same person inhabit many statuses and many persons inhabit the same status but also many different roles can indicate the same status and the same role can indicate many different statuses. For these reasons, the idea of an 'emblematic role' should be introduced. For example, wearing a uniform (say, that of a sergeant in the army) is probably the exemplary emblematic role. It is minimally ambiguous and maximally public. Members of a status have it in common: it contrasts them with members of other statuses; and members of all such statuses are conscious of this contrastive commonality. It may only and must always be worn by members of a certain status. And finally, it provides necessary and sufficient criteria for inferring that the bearer has the status in question – see Table 12.3. While most statuses don't come with uniforms, they nonetheless have **relatively** emblematic roles – or roles which satisfy some, but not all, of these criteria.

In addition to emblematic roles, there are several other key means by which statuses are distinguished, perpetuated, explicated and objectified. While the emphasis so far has been on the

Table 12.3 The four dimensions of relatively emblematic roles

Phenomenological	A role which is maximally public (i.e. perceivable and interpretable); and a role which is minimally ambiguous (i.e. one-to-one and onto)
Relational	A role which all members of an intentional status have in common ; a role by which members of different intentional statuses contrast , and a role of which all members are conscious
Normative	A role which may (only) be expressed by members of a particular intentional status; and a role which must (always) be expressed by members of a particular intentional status
Epistemic	A role which provides necessary and sufficient criteria for inferring (and/or ascribing) the intentional status in question







commitments and entitlements that constitute a particular status, this is merely the substance of a status: what anyone who holds that status has in common with others who hold that status. As implicit in Linton's definition, any status is also defined by its contrast to other statuses (its commitments and entitlements in relation to their commitments and entitlements): husband versus wife, parent versus child, etc. And finally, though not remarked upon by Linton, anyone who inhabits a status usually has a second-order, or 'reflexive' understanding of this contrastive commonality typically called self-consciousness. These are often structured as stereotypes, and they may be the crucial locus for the expectations underlying other's behaviour: he must be a waiter, because he has a stereotypic sign of being a waiter; and if he is a waiter, then he should behave in further stereotypic ways - not so much grounded in commitments and entitlements, as similar to some culturally-circulating exemplar or prototype of a waiter.

In short, a status should be defined as a collection of commitments and entitlements to signify and interpret in particular ways; a role should be defined as any mode of signification or interpretation that enacts these commitments and entitlements; and an attitude should be defined as any interpretant of a status through a role – usually itself another status. Here, then, is where modality (entitlement and commitment) is most intimately tied to meaning (signification and interpretation).

It should be emphasized, then, that the definition of status being developed here should not be confused with the folk-sociological understanding of status as relative prestige, qua 'high status' and 'low status'. Moreover, the definition of role being developed here should not be confused with the folk-sociological sense of 'status symbols'.

So far the discussion has been about social statuses as particular kinds of object, or ultimate interpretants. However, the entire analysis can be extended to cover mental states - or what might best be called 'intentional statuses' – as particular kinds of ultimate (representational) interpretants. For example, believing it will rain, or intending to go to the store, or remembering that one had bacon for breakfast can each be understood as an inferentially articulated set of commitments and entitlements to signify and interpret in particular ways: normative ways of speaking and acting attendant upon being a certain sort of person - a believer that the earth is flat, or a lover of dogs. A role is just any enactment of that status: actually putting one or more of those commitments and entitlements into effect; or speaking and acting in a way that conforms with one's mental states. And an attitude is just another's interpretant of one's mental state by way of having perceived one's roles: I know you are afraid of dogs, as a mental state, insofar as I have seen you act like someone afraid of dogs; and as a function of this knowledge (of your mental state through your role), I come to expect you to act in certain ways - and perhaps sanction your behaviour as a function of those expectations (where such sanctions are often the best evidence of my attitude towards your mental state).

The real difference, then, between social statuses and mental states, is that mental states are inferentially articulated (their propositional contents stand in logical relation to other propositional contents) and indexically articulated (their propositional contents stand in causal relation to states of affairs). For example, and loosely speaking: beliefs may logically justify and be logically justified by other beliefs; perceptions may logically justify beliefs and be indexically caused by states of affairs; and intentions may be logically justified by beliefs and be indexically causal of states of affairs (Brandom, 1994; Kockelman, 2006c). Table 12.4 orders what are perhaps the five most basic mental states as a function of their prototypic inferential and indexical articulation: memory, perception, belief, intention and plan.

Finally, there are relatively emblematic roles of mental states: behaviours (such as facial expression

Table 12.4 Inferential and indexical articulation of intentional statuses

Couched as semiotic process	Observation Empirical Memory Perception		Assertion Epistemic	Action Practical	
Couched as mode of commitment					
Couched as mental state			Belief	Intention	Plan
Stand as reason	×	×	×		
Stand in need of reason			×	×	×
Caused by state of affairs	×	×			
Causal of state of affairs				×	×
Non-displaced causality		×		×	
Displaced causality	×				×







and speech acts) which provide relatively incontrovertible evidence of one's mental state. This means that the so-called privateness of mental states is no different from the privateness of social statuses: each is only known through the roles that enact them, and only incontrovertibly known when these roles are emblematic. Such a fact is captured in the phrase to wear one's heart on one's sleeve. As we will take up in detail, speech acts such as I believe it's going to rain are relatively emblematic signs of both the propositional mode (belief) and the propositional content (that it's going to rain). Moreover, the so-called subjectivity of mental states arises from the fact that they may fail (normatively speaking) to be logically justified (or logically justifying), and they may fail (normatively speaking) to be indexically causal (or indexically caused). There are nonsated intentions, false beliefs, invented memories, non-veridical perceptions, plans that fall through, and so forth. In short, mental states have been theorized from the standpoint of social statuses, on the one hand, and speech acts, on the other. This is the proper generalization of Peirce's understanding of ultimate representational interpretants - when grounded in a wider theory of sociality and linguistics.

Another way to characterize all these ultimate (representational) interpretants is as 'embodied signs'. In particular, ultimate (representational) interpretants, and mental states and social statuses more generally, have the basic structure of semiotic processes: they have roots leading to them (insofar as they are the proper significant effects, or interpretants, of other signs); and they have fruits following from them (insofar as they give rise to modes of signifying and interpreting, or roles, that may be interpreted by others' attitudes). The key caveat is that the mental state or social status itself is non-sensible or 'invisible': one knows it only by its roots and fruits, the sign and interpretant events that lead to it and follow from it. For example, any number of sign events may lead to the belief that it will rain tomorrow (you hear it on TV, your farmer friend tells you, the sky has a certain colour, you hear the croaking of the toads, etc.), and any number of sign events may follow from the belief it will rain tomorrow (you shut the windows, you tell your friends, you buy an umbrella, you take in the washing, etc.). Thus, intentional statuses are inferentially and indexically articulated: they may logically lead to and follow from other intentional statuses; and they may causally lead to and follow from states of affairs. In this way, so-called 'mental states' may be understood as complex kinds of embodied signs that humans are singularly adept at tracking. And so-called 'theory of mind' is really just a particular mode of the 'interpretation of signs'.

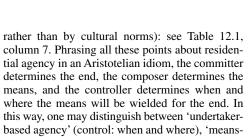
More generally, the attitudes of others towards our social statuses and mental states are evinced in their modes of interacting with us: they expect certain modes of signification and interpretation from us (as a function of what they take our social statuses and mental states to be); and they sanction certain modes of signification and interpretation from us (as a function of these expectations). Thus, we perceive others' attitudes towards our social statuses and mental states in their modes of interacting with us (just as we perceive others' social statuses and mental states by their patterns of behaviour). In this way, if one wants to know where social statuses and mental states reside, or where ultimate (representational) interpretants are embodied and embedded, the answer is as follows: in the sanctioning practices of a signcommunity, as embodied in the dispositions of its members, and as regimented by reciprocal attitudes towards each others' social statuses and mental states (as evinced in each other's roles). If you think this is circular, you're right; if you think circularity is bad or somehow avoidable, you're wrong. Indeed, if there is any sense to the slogan meaning is public, this is it.

12.4 PERFORMATIVITY REVISITED: SEMIOTIC AGENTS AND GENERALIZED OTHERS

The 'signer' is the entity that brings a sign into being – that is, brings a sign into being (in a particular time and place) such that it can be interpreted as standing for an object, and thereby give rise to an interpretant. It is often accorded a maximum sort of agency, such that not only does it control the expression of a sign but also it composes the sign-object relation, and commits to the interpretant of that relation. As will be used here, to **control** the expression of a sign, means to determine its position in space and time. Loosely speaking, one determines where and when a sign is expressed. To **compose** the relation between a sign and an object means to determine which sign stands for the object and/or which object is stood for by the sign. Loosely speaking, one determines what a sign expresses and/or how this is expressed. To **commit** to the interpretant of a sign-object relation, means to determine what its interpretant will be. This means being able to anticipate what the interpreter will do - be the interpreter the signer itself (at one degree of remove), another (say, someone other than the signer), or 'nature' (in the case of regimentation by natural causes







based agency' (composition: what and how), and

'ends-based agency' (commitment: why and to

what effect).

Notice, then, that there are three distinguishable components of a signer (controller, composer and committer), corresponding to three distinguishable components of a semiotic process (sign, object and interpretant). When the sign involves verbal behaviour, and the signer controls, composes and commits, the signer is usually called a 'speaker'. And when the sign involves non-verbal behaviour, and the signer controls, composes and commits, the signer is usually called an 'actor'. In both cases, responsibility for some utterance or action some 'word' or 'deed' - is usually assigned as a function of the degree to which the signer controls, composes and commits. And, as a function of this responsibility, the signer may be rewarded or punished, praised or blamed, held accountable or excused, and so on.

One understanding of agency would locate it at the intersection of these dimensions of control, composition and commitment. In particular, it may be shown that each of these three dimensions, or roles, is not usually simultaneously inhabited by identical, individual, human entities. For example, the signer need not an individual (nor need be any of its individual components - controller, composer, committer). It may be some less than or larger than individual entity – say, a super-individual (e.g. a nation-state) or a sub-individual (e.g. the unconscious). The signer need not be human. It may be any sapient entity (e.g. a rational adult person or an alien life form with something like natural language), sentient entity (e.g. a dog or fish), responsive entity (e.g. a thermostat or pinwheel), or even the most unsapient, unsentient and unresponsive entity imaginable (e.g. rocks and sand as responsive only to gravity and entropy). More generally, these signers may be distributed in time (now or then), space (here or there), unity (super-individual or sub-individual), individual (John or Harry), entity (human or non-human) and number (one or several). In this way, agency involves processes which are multi-dimensional, by degrees, and distributed. Accountability scales with the degree of agency one has over each of these dimensions.

For the moment, it is enough to focus on the last of these three dimensions. By 'commitment' is meant that a signer can 'internalize' another's

interpretant. More carefully phrased, to commit to the interpretant of a sign means that one is able to anticipate what sign the interpreter will express, where this anticipation is evinced in being surprised by and/or disposed to sanction, non-anticipated interpretants. Mead (1934), for example, made a famous distinction between the gestural and the symbolic (and see Vygotsky, 1978). In particular, he says that

The vocal gesture becomes a significant symbol ... when it has the same effect on the individual making it that it has on the individual to whom it is addressed or who explicitly responds to it, and thus involves a reference to the self of the individual making it. (Mead, 1934: 46)

That is, for Mead, symbols are inherently self-reflexive signs: the signer can anticipate another's interpretant of a sign insofar as the signer can stand in the shoes of the other, and thereby expect and/or predict the other's reaction insofar as they know how they themself would respond in a similar situation. In this way, the symbolic for Mead is the realm of behaviour in which one can seize control of one's appearance — and thereby act for the sake of others' interpretants. For example, in Mead's terms, using a hammer to pound in a nail is gestural, whereas wielding a hammer to (covertly) inform another of one's purpose (rather than, or in addition to, driving a nail through a board) is symbolic.

Crucially, while Mead's distinction between the gestural and the symbolic relates to Peirce's distinction between index and symbol, they should not be confused. Moreover, Mead's terms should not be confused with the everyday meaning of gesture (say, in comparison to verbal language). Indeed, for Mead, the features of a semiotic process that really contribute to its being a symbol rather than a gesture are whether the ground (or sign-object relation) is symbolic rather than indexical, and whether the sign is symmetrically accessible to the signer's and interpreter's senses: i.e. signs with relatively conventional grounds (in Peirce's sense) are more likely to be symbols (in Mead's sense); and signs with relatively indexical grounds (in Peirce's sense) are more likely to be gestures (in Mead's sense). And by symmetric is meant that the sign appears to the signer and interpreter in a way that is sensibly identical: both perceive (hear, see, smell, touch) the sign in a relatively similar fashion. For example, spoken language is relatively symmetric and a facial expression is relatively asymmetric, with sign language being somewhere in the middle. (Mirrors are one of the ways we endeavour to make symmetric relatively asymmetric signs.) In short, taking Mead's cues, semiotic processes







whose signs are relatively symmetric, and whose grounds are relatively symbolic, are easier to commit to than semiotic processes whose signs are relatively asymmetric, and whose grounds are relatively iconic-indexical. And commitment is crucial because it allows for self-reflexive semiosis, in which a signer has internalized – and hence can anticipate – the interpretants of others. Commitment, then, is fundamental to reflexivity as a defining feature of selfhood.

As used here, an **addressed** semiotic process is one whose interpretant a signer commits to, and one whose sign is expressed for the purpose of that interpretant. Address may be overt or covert depending on whether or not the interpreter is meant to (or may easily) infer the signer's commitment and purpose. These distinctions (committed and non-committed, addressed and non-addressed, overt and covert) cross-cut pre-theoretical distinctions such as Mead's distinction between 'gesture' and 'symbol' (1934), and Goffman's distinction between signs 'given' and signs 'given off' (1959). Needless to say, the ability to commit to an interpretant of a sign – and thereby address one's thirds and/or dissemble with one's addressed thirds turns on relatively peculiar cognitive properties of signers, social properties of sign communities and semiotic properties of signs.

Just as one can commit to others' interpretants of one's signs, one can commit to others' attitudes towards one's roles: i.e. one can anticipate what attitude the interpreter will adopt, where this anticipation is evinced in being surprised by and/or disposed to sanction, non-anticipated attitudes. In a Meadian or Vygotskian idiom, one can 'internalize' another's attitude (towards one's status). And, in cases of self-reflexive semiosis, where this other is oneself, one can self-sanction one's own behaviour as conforming or not with one's status. This is, of course, a crucial aspect of selfhood.

For the moment, it should be noted that it is both a relatively human-specific and a relatively sign-specific capability. In particular, it seems that only humans, and only humans at a particular age, can commit to others' attitudes (i.e. affect certain roles such that others will take them to have certain statuses as evinced in these others' attitudes); and this commitment is differentially possible as a function of what kind of role, and hence sign, is being committed to (e.g. relatively symbolic semiotic processes are easier to commit to than relatively indexical semiotic processes, and emblematic roles are relatively easy to commit to almost by definition). Indeed, this relative ability to commit to others' attitudes may lead to three sorts of discrepancies:

 cases where the attitudes of others take us to have statuses our own attitudes don't;

- cases where our own attitudes take us to have statuses the attitudes of others don't;
- and cases where neither our own attitudes, nor the attitudes of others, take us to have statuses we seem to have (insofar as our behaviour evinces it as a regularity, though perhaps not a norm).

Some senses of the term 'unconscious' turn on exactly these kinds of discrepancies.

Each individual has many statuses, and each of these statuses is regimented via the attitudes of different sets of others (cf. Mead, 1934; Linton, 1936). Usually, these sets are institution-specific (indeed, this is one of the key criteria of any institution). For example, as a mother, my status is regimented by the attitudes of my children, my husband, the babysitter, several close friends, my own parents, and so forth. As a bank-teller, my status is regimented by the attitudes of my boss, my co-workers, my customers, and so forth. As a shortstop (baseball fielder), my status is regimented by the attitudes of the pitcher, the basemen, the fielders, the batter, the fans, and so forth. As someone committed to the claim that you had ice-cream for dessert last night, my status is regimented by your attitude (insofar as you just informed me of this), and perhaps the attitudes of any other participants in the speech event, and so forth. And, within each of these institutions, my attitudes regiment the statuses of my children and husband, my boss and customers, my basemen and batters, the participants in our speech event. In short, for each of our statuses, there is usually a set of others whose attitudes regiment it, and whose statuses our attitudes help regiment. The speech event is perhaps the minimal generalized other: a speaker and an addressee, each regimenting the social statuses and mental states of the other; what we mutually know about each other given the immediate context; what we mutually know about each other given the ongoing discourse; and what we mutually know about each other given our shared culture.

In cases where one has committed to the regimenting attitudes of sets of others towards one's status (within some institution), the sets of committed to (or 'internalized') attitudes may be called a 'generalized other', loosely following Mead's famous definition (1936: 154). (Indeed, we can say that a status is that to which all attitudes conditionally relate.) Most of us have an infinity of generalized others, some being wide enough to encompass all of humanity (say, our status as a person – at least we hope so), some being so narrow as to encompass only our lovers (say, as holding a certain awkward desire that we







have shyly informed them of). And sometimes we have statuses, as regimented by the attitudes of others, that we have not internalized. These form part of what may be called our unconscious self. These questions – of different kinds of multiply overlapping generalized others, and of conscious and unconscious selves (via committed to and uncommitted to, or internalized and uninternalized attitudes) – are crucial for understanding agency and selfhood. Here, then, the true importance of emblematic roles comes to the fore: they are our best means of securing mutual recognition, or rather intersubjective attitudes.

Putting all these ideas together we may revisit Austin's understanding of performativity. For a sign event to be felicitous it must be appropriate in context and effective on context. And sign events are only appropriate insofar as participants already have certain social statuses and mental states (or in which a space of intersubjectively recognized commitments and entitlements is already in place), and are only **effective** insofar as participants come to have certain social statuses and mental states (or by which a change in the space of intersubjectively recognized commitments and entitlements takes place). Thus, just as we comport within a given space of commitments and entitlements, our comportment changes the space of commitments and entitlements. Finally, Austin made a distinction between relatively explicit and relatively implicit speech acts - usually signs with propositional content and illocutionary force (e.g. shut the door or sixpence it won't rain). Indeed, his real focus is on 'explicit performatives', or verbal utterances whose illocutionary force has propositional content (e.g. I order you to shut the door or I bet you sixpence that it won't rain). In the idiom of Brandom, such primary performatives make explicit the action being performed and hence, in the idiom introduced above, count as relatively emblematic signs of already existing and subsequently existing social statuses and mental states.

But prior to Austin's understanding of performativity in terms of explicitness/implicitness and appropriateness/effectiveness, and the legions of scholars influenced by it, Mead (1934) made a distinction between the me versus the I on the one hand, and symbols versus gestures on the other. As already discussed, the symbol/gesture distinction is really a distinction between thirds whose interpretants one can or cannot commit to (and hence is a question of relative degrees of self-reflexivity and/or explicitness). And, for Mead, 'The "I" is the response of the organism to the attitudes of the others; the "me" is the organized

set of attitudes of others which one himself assumes' (1934: 175). That is, the me is the status of the self as regimented by the attitudes of some generalized other. And the I is the role of the self that transforms the generalized other. Or, in the idiom introduced above – a semiotic and temporal reading of Linton, Mead and Austin – the me is the self as appropriating, having taking into account others' attitudes towards its social and intentional statuses; and the I is the self as effecting, enacting social and intentional roles that change others' attitudes.

NOTE

1 This essay is a highly abridged and slightly extended version of Kockelman, P. (2005) 'The semiotic stance', which appeared in *Semiotica*, 157(1): 233–304.

REFERENCES

Austin, J. L. (2003 [1955]). *How to do things with words*. 2nd edn. Cambridge, MA: Harvard University Press.

Bourdieu, P. (1977 [1972]) *Outline of a theory of practice*. Cambridge: Cambridge University Press.

Brandom, R. (1979) 'Freedom and Constraint by Norms'. American Philosophical Quarterly, 16(3): 187–196.

Brandom, R. (1994) *Making it explicit: reasoning, representing, and discursive commitment.* Cambridge, MA: Harvard University Press.

Brown, R. and Gilman, A. (1972 [1960]) 'The pronouns of power and solidarity', in P. P. Giglioli (ed.), *Language and social context*. New York: Penguin. pp. 252–82.

Colapietro, V. M. (1989) Peirce's approach to the self: a semiotic perspective on human subjectivity. Albany, NY: State University of New York Press.

Goffman, E. (1959) The presentation of self in everyday life. New York: Anchor Books, Doubleday.

Goffman, E. (1981) 'Footing', in *Forms of talk*. Philadelphia: University of Pennsylvania Press. pp. 124–59.

Grice, P. (1989) Utterer's meaning and intentions. In *Studies in the ways of words*, Cambridge: Harvard University Press. pp. 86–116.

Halliday, M. A. K. and Hasan, R. (1976). *Cohesion in English*. London: Longman.

Hanks, W. F. (1990) Referential practice. Chicago: University of Chicago Press.

Haugeland, J. (1998) 'The Intentionality All-Stars'. In *Having Thought: Essays in the metaphysics of mind*, Cambridge: Harvard University Press pp. 127–170.

Jakobson, R. (1990). 'The speech event and the functions of language'. In *On language*, L. R. Waugh and M. Monville-Burston (eds) Cambridge: Harvard University Press. pp. 69–79.







- Kockelman, P. (2005) 'The semiotic stance', *Semiotica*, 157: 233–304.
- Kockelman, P. (2006a) 'Residence in the World: Affordances, instruments, actions, roles, and identities', Semiotica, 162(1): 19–71.
- Kockelman, P. (2006b) 'Representations of the World: Memories, perceptions, beliefs, plans, and intentions', Semiotica, 162(1): 72–125.
- Labov, W. (1966) 'Hypercorrection by the lower middle class as a factor in linguistic change'. In W. Bright (ed), Sociolinguistics: Proceedings of the UCLA Sociolinguistics Conference, 1964. The Hague: Mouton. pp. 84–113.
- Linton, R. (1936) *The study of man*. Appleton, Century, and Crofts.
- Marx, K. (1967) Capital, Vol. 1. New York: Free Press.
- Mead, G. H. (1934) Mind, self, and society from the standpoint of a social behavioralist. Edited by Charles S. Morris. Chicago: University of Chicago Press.
- Morris, C. W. (1938) Foundations of the theory of signs. Chicago: University of Chicago Press.
- Parmentier, R. J. (1994) 'Peirce divested for nonintimates' in Signs in society: studies in semiotic anthropology. Bloomington, IN: Indiana University Press. pp. 3–22.
- Peirce, C. S. (1931–35) *Collected papers of Charles Sanders Peirce*, 6 volumes. Edited by C. Hartshorne and P. Weiss. Cambridge, MA: Harvard University Press.
- Peirce, C. S. (1955a) 'Logic as semiotic: the theory of signs', in Justus Buchler (ed) *Philosophical writings of Peirce*. New York: Dover Publications. pp. 98–119.
- Peirce, C. S. (1955b) 'The principles of phenomenology', in J. Buchler (ed.), *Philosophical writings of Peirce*. New York: Dover Publications. pp. 74–97.

- Peirce, C. S. (1955c) 'Pragmatism in retrospect: a last formulation', in J. Buchler (ed.), *Philosophical writings of Peirce*. New York: Dover Publications. pp. 269–89.
- Sachs, H., Schegloff, E. A. and Jefferson, G. (1974) 'A simplest systematics for the organization of turn-taking for conversation', *Language*, 50, 696–734.
- Sapir, E. (1985 [1927]) 'The unconscious patterning of behavior in society', in D. G. Mandelbaum (ed.), Selected writings in language, culture, and personality. Berkeley, CA: University of California Press. pp. 544–59.
- Saussure, F. de (1983 [1916]) *Course in general linguistics*. La Salle, IL: Open Court Press.
- Searle, J. R. (1969) Speech acts. Cambridge: Cambridge University Press.
- Sebeok, T. A. and Umiker-Sebeok, J. (eds) (1992) *Biosemiotics.*The semiotic web 1991. Berlin and New York: Mouton de Gruyter
- Silverstein, M. (1995 [1976]). 'Shifters, linguistic categories, and cultural description', in B. G. Blount (ed.), Language, culture, and society: a book of readings. Prospect Heights, IL: Waveland Press. pp. 187–221.
- Strawson, P. F. (1971 [1954]) 'Intention and Convention in Speech Acts', in J. Rosenberg and C. Travis (eds.), Readings in the philosophy of language, Englewood Cliffs, NJ: Prentice-Hall. pp. 599–614.
- Vygotsky, L. S. (1978) 'Tool and symbol in child development', in M. Cole, V. John-Steiner, S. Scribner and E. Souberman (eds), *Mind and society: the development of higher psychological processes.* Cambridge, MA: Harvard University Press. pp. 19–30.
- Weber, M. (1978) *Economy and society,* Vol. 1, G. Roth, and C. Wittich (eds). Berkeley: University of California Press.



