Residence in the world: Affordances, instruments, actions, roles, and identities*

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Abstract

This essay brings Peirce's understanding of meaning to bear on Heidegger's critique of mind, thereby articulating being-in-the-world in terms of semiosis. Using ideas developed in 'The semiotic stance' (2005), it theorizes five interrelated semiotic processes — heeding affordances, wielding instruments, undertaking actions, performing roles, and filling identities — that constitute the key modes of non-linguistic and/or non-representational meaning in which human-beings are always already holistically implicated. It doing so, it theorizes what is meant by purchases, functions, purposes, statuses, and values (as well as providing a semiotically sophisticated account of 'material culture'). And it generalizes Anscombe's idea of 'acting under a description' to comporting within an interpretation.

1. Introduction

Being and Time, Martin Heidegger's central text, and one of the most influential works of twentieth-century philosophy, may be summarized as follows:

Prior to objects, and the subjects that contemplate them, there are instruments and the actions that wield them. (Human concerns before metaphysical conceits.)

Prior to the instrument as a physical object, there is the instrument as a relational process. And hence before an instrument has context-independent properties (such as mass, shape, and size), an instrument has context-dependent connections to other processes (such as its relations to other instruments that contextualize it and other actions that incorporate it). (Process before thing; context before content; relations before relata.)

Prior to an instrument as a kind of relational process, there is a collection of different kinds of relational processes. And hence before there is

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an instrument, there is an ensemble of interconnected instruments; and before there is an ensemble of interconnected instruments, there is an ensemble of interconnected affordances, instruments, actions, roles, and identities. (Whole before part; multiplicity before singularity.)

Prior to perception is meaningful experience: *accommodating oneself to* a collection of different kinds of relational processes. Experiencing, like perceiving, is temporally retentive, or oriented towards the past. And hence in experience we merge ourselves with previously existing relations among elements within an ensemble. (Experience before perception.)

Prior to intention is meaningful behavior: *assimilating to oneself* a collection of different kinds of relational processes. Behaving, like intending, is temporally protentive, or orientated towards the future. And hence in behavior we merge with ourselves subsequently existing relations among elements within an ensemble. (Behavior before intention.)

Prior to representations of the world (perceptions and intentions) is residence in the world (experience and behavior). And hence before there are mental states directed towards isolated states of affairs, there is relating to relations, or emergence. And before there are memories and plans (as retentive and protentive mental states), there is accommodation and assimilation (as retentive and protentive emergence). (Meaning before Mind; temporality before Time.)

Prior to bridging subject-object divides, there are disturbances which dissolve unities. And hence before we distinguish between who merges and what they merge with, we need to examine emergence; and before we explain what would suture the subject and object, we need to understand what ruptured the 'sobject'. (Envorganism before organism and environment; ruptured unities before sutured dichotomies.)

Theory fares poorly when it reverses the direction of priority.

This essay treats residence in the world, or non-propositional modes of semiosis: heeding affordances, wielding instruments, undertaking actions, performing roles, and filling identities. The holistic nexus of such modes of residing in the world will be called the *residential whole*. It should be read in conjunction with the essay entitled 'Representations of the world,' which treats propositional modes of semiosis: perceptions, beliefs, wishes, memories, plans, and intentions. The holistic nexus of such modes of representing the world will be called the *representational whole*. Needless to say, the residential whole and the representational whole, residence in the world and representations of the world, are just two slices through the same whole, separated only for analytic and expository purposes. Taken together, as irreducibly interrelated, these modes of semiosis constitute *being-in-the-world*.[1]

The five constituents of the residential whole — affordances, instruments, actions, roles, and identities — have a number of features in common.[2] Most importantly, they are all semiotic processes, or thirds, consisting of a sign, an object, and an interpretant (see table 1). In particular, an affordance is a semiotic process whose sign is a natural feature, and whose object is a purchase. An instrument is a semiotic process whose sign is an artificed entity, and whose object is a function. An action is a semiotic process whose sign is a controlled behavior, and whose object is a purpose. A role is a semiotic process whose object is a status, and whose sign is an enactment of that status. And an identity is a semiotic process whose object is a value, and whose sign is an enactment of that value. As semiotic processes, these constituents are very different from stereotypic semiotic processes such as linguistic utterances. For example, their grounds are relatively iconic and indexical, rather than symbolic; they are not usually addressed (in the sense of purposefully expressed for the sake of another's interpretant); their objects are not propositions or concepts (and hence are not inferentially articulated); their signs usually consist of material features of the natural and social world; and so forth. While non-propositional semiotic processes are typically understood as an unmarked category, having no intrinsic structure outside of not being propositional, and hence constituting a kind of garbage bin of meaning (sometimes called the 'hurly-burly,' the 'background,' what 'cannot be said,' 'context,' and so forth), the account offered here takes them to be finite, structured, intuitive, and articulatable.

If the constituents of the residential whole are semiotic processes, what are their interpretants? Most concretely, the interpretants of these constituents are just other constituents, related to them by various modes of *embeddedness*.[3] In particular, and as will be theorized in the next section, some of their interpretants are just other constituents of the residential whole that are realized by them (e.g., an action realizes an instrument, as cause to effect), contextualize them (e.g., an affordance contextualizes an instrument, as ground to figure), or incorporate them (e.g., a role incorporates an action, as whole to part). Moreover, as theorized in 'The semiotic stance' (Kockelman 2005), some have energetic interpretants: the action of wielding an instrument or heeding an affordance provides an interpretant of the instrument or affordance. Some of their interpretants are just ultimate interpretants in the guise of either roles and identities in the residential whole, or beliefs and intentions in the representational whole. And some of their interpretants are just constituents of the representational whole that represent them (e.g., an utterance that represents an action) or refer to them (e.g., a word that refers to an instrument). In this way, the residential whole is maximally reflexive: each of its constituents is a

Table 1. *Constituents of the residential whole and their semiotic components*

Constituent	Object*	Sign	Incorporating Interpretants	Realizing Interpretants	Contextualizing Interpretants	Representational Interpretants
Affordance	Purchase	Natural Feature	Affordance, Instrument, Action, Role, Identity	N.A.	Affordances, Instruments, Actions, Roles, Identities	Utterances involving words like: leaf, hand, air, cloud, wind, rock
Instrument	Function	Artificed Object	Instrument, Action, Role, Identity	N.A.	Affordances, Instruments, Actions, Roles, Identities	Utterances involving words like: hammer, nail, pen, chair, shoe
Action	Purpose	Controlled Behavior	Action, Role, Identity	Instrument, Action, Role, Identity	Affordances, Instruments, Actions, Roles, Identities	Utterances involving words like: run, walk, sit, dream, cajole
Role	Status	Enactment of Status (often by undertaking an action)	Role, Identity	Instrument, Action, Role, Identity	Affordances, Instruments, Actions, Roles, Identities	Utterances involving words like: mother, banker, plumber, thief
Identity	Value	Enactment of Value (often by performing a role)	Identity	Instrument, Action, Role, Identity	Affordances, Instruments, Actions, Roles, Identities	Utterances involving words like: Armenian, Christian, Latino, Ifaluk

* It should be stressed that the objects of these constituents are minimally 'objective.' Indeed, this is where the definition of objects offered in the text is most relevant: the object of a sign is that to which all appropriate and effective interpretants of that sign correspondingly relate. Signs and interpretants, then, are best understood as the sites where objects surface.

semiotic process whose interpretants are components of other constituents. The constituents of the residential whole signify and interpret each other. Indeed, more generally speaking, being-in-the-world — residence and representation — is self-signification and self-interpretation.

What is the nature of the objects of these semiotic processes — those purchases, functions, purposes, statuses, and values? Semiotically speaking, and as per the ideas of 'The semiotic stance,' the object of any constituent is the conditional relatum of all interpretants of that constituent, where these interpretants are appropriate and effective (as evinced in the sanctioning practices of a community and as embodied in the dispositions of its members). Needless to say, what counts as appropriate and effective is determined by many interrelated factors, as a function of that constituent's being embodied and embedded in the residential whole: in particular, the other constituents that realize it, contextualize it, incorporate it, or represent it. Insofar as the objects of all constituents of the residential whole are holistically determined in this way, it ensures that the ground of any constituent is as iconic-indexical as it is indexical-symbolic; and it ensures that residence in the world is as embedded as it is embodied. If the constituents are semiotic processes, whose objects are conditional relata (and hence maximally 'non-objective'), and whose interpretants are other constituents (and hence as 'objective' as any signs), then the objects — though at first seeming to be most 'objective' — drop out of sight. That is, one does not 'see' purchases, functions, purposes, statuses, or values. One cannot ask 'where is its function?' or 'can you point out its purpose?' Insofar as objects are non-sensible entities, these are nonsensical questions. Rather, the only evidence one ever has for the existence of such objects are the signs that express and interpret them — that is, the constituents of the residential whole themselves.[4] In this way, signs and interpretants provide the best pictures of objects. Indeed, they might be best thought of as the sites where objects surface.[5]

Just as objects are relatively non-objective (from the analyst's point of view), they are also relatively non-occurrent (from the actor's point of view). That is, discursively they are not a topic of conversation; phenomenologically, they are not a focus of consciousness; and cognitively they have no propositional content. Nonetheless, objects may become objective and/or occurrent by several routes. First, they can have conceptual content conferred upon them by propositional signs of the representational whole. That is, there are words that refer to them (and/or their signs): *tree*, *hammer*, *hug*, *mother*, and *Armenian*. Second, they can have realized interpretants (e.g., an action can realize an instrument, thereby objectifying the purpose of the action in the instrument). Third, they can be realized interpretants (e.g., members of an institution might create

a role for that institution). Fourth, there are disturbances (malfunctions, mistakes, glitches, etc.) that bring objects to the fore, making them topics of discussion or foci of consciousness. Fifth, there is performance (turning all comportment into spectacle). This happens when one seizes control of one's appearance, by internalizing another's interpretant of one's comportment, and thereby comporting for the sake of their interpretant. For example, one's wields a hammer to (covertly) inform another of one's purpose (rather than, or in addition to, driving a nail through a board). And sixth, they may be implicated in theoretical representations, empirical observations, or practical interventions (becoming the 'objects' of scientific theories, laboratory analyses, or technological practices).

Why are there *five* constituents of the residential whole — and not some other number, say, three or seven, one or ten? One could make further divisions and produce more constituents. For example, instruments might be divided into tools and machines; or roles might be divided into those that are ascribed and those that are achieved. In principle, there is no end to the number of subdivisions one could make. Alternately, one could unite some of these divisions and produce fewer constituents. For example, affordances and instruments might be united; as might roles and identities. In principle, one could go all the way and subsume all the constituents under the term 'comportment' (not otherwise specified). The reasons for using five constituents, and these five constituents in particular, are practical as well as theoretical. Lexically, there are propositionally contentful signs in the representational whole which refer to, and hence confer propositional content upon, the constituents of the residential whole. For example, there are words like *tree* and *cliff*, *hammer* and *axe*, *run* and *walk*, *husband* and *daughter*, *Mormon* and *Armenian*.[6] Normatively, they are privileged sorts: semiotic processes implicated in many different norms, and hence acquiring a kind of facticity.[7] Phenomenologically, they have an intuitive or 'experience near' status, which is of course implicated in their lexical and normative status.[8] In this way, there is nothing obscure about these semiotic processes — in any culture, or at any point in history.[9] Epistemically, these constituents have the structure of an ideal type (cf. Weber 1949 [1904]). Thus, they should be judged for their usefulness, not their truthfulness. Moreover, as theoretical terms their conceptual structure is prototypic rather than classical. Anthropologically, they constitute the basic theoretical building blocks and descriptive metalanguage that any particular ethnography or general theory of sociality must be articulated in terms of. And practically, five constituents is a middle way, providing gradation without degradation. In short, one is tempted to call the constituents of the residential whole *basic kinds* of

social theory: they have been chosen so that, the number of characteristics shared by members of each one is maximized, and the number of characteristics shared across them is minimized (cf. Taylor 1995: 51; and see Rosch 1975).[10]

Why order the five constituents of the residential whole in this way, with affordances on one side, identities on the other, and actions in the middle? Indeed, why can they be projected onto a single dimension at all? While there is no single good reason for this ordering, it may be justified by several *tendencies*. In part, it is because of relative inclusion of incorporation: affordances are incorporated by instruments, instruments are incorporated by actions, actions are incorporated by roles, and roles are incorporated by identities. Given the way incorporation will be defined below, this form of interpretation maintains a loose means-ends hierarchy that, while perhaps reminiscent of Aristotle, is here theorized in terms of Peirce. That is, for any two terms on this scale (affordance < instrument < action < role < identity), the term on the left relates to the term on the right as means to ends — affordances thereby being the most elementary means, and identities being the most elaborate ends.[11] In part, it is because as one moves from affordances to identities, one moves from semiotic processes whose grounds are maximally iconic-indexical to semiotic processes whose grounds are maximally indexical-symbolic, and hence from semiotic processes relatively regimented by natural causes to semiotic processes relatively regimented by cultural norms.[12] In part, it is because as one moves from affordances to identities, one moves from constituents that are minimally dependent on other constituents to constituents that are maximally dependent on other constituents. In part, it is because of the degree of effervescence of the sign: the natural features of affordances are widespread, stable and persistent in comparison to the enactment of values that constitute the signs of identities. In part, it is as a function of their degree of dependence on propositional content: affordances can be affordances without propositional content, whereas identities can only be identities with propositional content.[13] And, in part, it is because of the relative degree of control, composition, and commitment that each one embodies: affordances seem to embody the least amount of control, composition, and commitment (or 'agency'); and identities seem to embody the most.

Putting these reasons together, one sees that identities *tend* to fold together several different properties: being the final end of the residential whole; being most motivated by cultural norms; being most dependent on other constituents; being most effervescent in their signs; being most propositionally contentful; and being most subject to control, composition, and commitment (or agency more generally). It is for this reason that

identity, while introduced in this essay, cannot be fully resolved until selfhood is theorized.

As its name suggests, the residential whole is fundamentally governed by *holism*: the meaning of any constituent in the whole is enabled and constrained by its relation to the meaning of many other constituents in the whole. When such enabling and constraining relations confirm rather than contradict each other — such that the meaning of any constituent is redundantly determined by many other constituents — such a whole may be called *coherent*.[14] And as a function of how coherent any whole actually is, different metaphors may be invoked to describe it: a tapestry (Margaret Mead), pattern (Sapir), octopus (Geertz), quilt (Lacan), rhizome (Deleuze and Guattari), or mangle (Pickering). In most cases, it is really a question of scale: there may be local coherence, but not global coherence; or there may be global coherence, but not local coherence (where the relative scale of parts and wholes is an analytic decision). Indeed, there are many different wholes, as a function of the analytic criteria used to establish such a part-whole relations: there are many parts of each whole; each whole is a part of a larger whole; and each part is a whole with smaller parts. In particular, wholes typically exist at different nested and nesting levels of structure — which do not so much scale in space and time, as provide the scales for spatiality and temporality. For example, one should minimally distinguish between the following nested and nesting wholes (or parts): the *residential whole* such as a culture or sign-community (grounded in an era, semiotic community, or semiotic commons); an *institutional whole* such as a family or corporation (grounded in a generation or discipline); a *situational whole* — as in the ethnomethodologists' 'definition of a situation' — such as a workshop or bedroom (grounded in an activity or interaction); *joint-attentional* or intersubjective whole (grounded in a we-here-now); and an *experiential whole* or subjective whole, such as an individual-centric swatch of the residential whole (grounded in an I-here-now).

Most of the above points are really about embeddedness and/or worldliness (see Brooks 1997; Dreyfus 1991; Gibson 1986 [1979]; Norman 2002 [1988]; Haugeland 1998a, 1998b; Simon 1981 for elaborations of these metaphors), and therefore complement the questions regarding embodiment taken up in 'The semiotic stance.' Inspired by Gibson's understanding of affordances (1986 [1979]), but generalizing across constituents, and framing the whole problem in a social and semiotic idiom, these points all touch on each other, and should be made explicit. First, to review, there is *holism*: the meaning of any constituent is determined by its relation to other constituents within some whole. Second, there is *motivation*: most of the constituents of the residential whole have iconic-indexical grounds,

such that 'context' — both evinces and regiments, both displays and demands, how they are to be interpreted. Third, as a function of these two points, there is *meaning in the environment*: one does not need to carry huge sources of information 'in one's head' (as, say, the propositional contents of beliefs); one finds it embodied within one and embedded around one.[15] Fourth, this implies that an organism and its environment are maximally *coupled*: the organism, if stripped of its environment, is stripped of its opportunities to meaningful act; and an environment, if stripped of its organism(s), is stripped of its opportunities to be meaningful. One's comportment is complex precisely because the environment in which one comports is complex. Fifth, there is *complementarity*: purchases, functions, purposes, statuses, and values stand at the intersection of the organism and its environment.[16] Characteristics of both the organism and the environment must be specified for these constituents to make sense. Sixth, there is *intimacy*: we organisms *are* our affordances, instruments, actions, roles, and identities; and the environment *is* other (and/or others') affordances, instruments, actions, roles, and identities. And lastly, there is *cointerpretation* and *cosignification*: every time one interprets or signifies a constituent one cointerprets or cosignifies oneself.[17] For example, each time one heeds an affordance or wields an instrument, one is offering an interpretation and/or providing a signification of oneself — one's own affordances and instruments (and one's own actions, roles, and identities).[18]

Using dichotomies reminiscent of the 'raw' and the 'cooked,' or 'nature' and 'culture,' scholars often contrast 'experience' and its 'articulation' or what is perceptually 'given' and what is cognitively 'taken.'[19] While this essay doesn't have any particular stakes in conflicts over these dichotomies, the following points should be stressed. First, one doesn't require conceptual structure, or propositional content more generally, for meaning: most objects are not inferentially articulated, and the grounds of most semiotic processes are not symbolic, but rather iconic-indexical. Second, 'The semiotic stance,' in conjunction with this essay, provides an account of meaning that is embodied and embedded through interpretive processes such as incorporation, realization, and contextualization, as well as through affective, energetic, representational, and ultimate interpretants. Third, through language all the constituents of the residential whole may have conceptual content conferred upon them through constituents of the representational whole (speech acts and intentional statuses) which represent or refer to them. Thus, the distinction between the given and the conceptualized is false in another way: we cannot separate the residential and representational wholes; each is the condition for the other. And fourth, the residential whole is constrained and

enabled by the representational whole; just as the representational whole is constrained and enabled by the residential whole. Indeed, even the conceptual content of most constituents of the representational whole is grounded in our experience of the residential whole: our representations are of the residential whole; and our conceptual contents usually turn on various interpretants of the constituents of the residential whole. Indeed, even our most propositional constituents of the representational whole (e.g., beliefs) are really ultimate representational interpretants, or intentional statuses, and hence are only known through the modes of comportment, and thus residence in the world, they give rise to.[20] In short, there is no presemiotic or unmeaningful domain of experience; the residential whole, in relation to the representational whole, is all there is to experience: indeed, it *is* experience.

After theorizing the nature of embedded interpretants, the rest of this essay treats each of the constituents of the residential whole in turn: affordances, instruments, actions, roles, and identities. The conclusion will take up Anscombe's idea of action under a description, and generalize it to *comporting within an interpretation*.

2. Embedded interpretants: Incorporation, realization, and contextualization

To Peirce's discussion of interpretants (1955: 276–284), and the retheorization of it undertaken in 'The semiotic stance,' the following typology should be added: interpretants that turn on incorporation, realization, and contextualization (see table 2). If Peirce's notion of interpretants turned on embodied comportment, this typology will broaden it to include the embedded effects of such comportment: the way the meaning of one constituent is dependent on the meaning of the other constituents in its context. In particular, it will be shown how contextually related constituents (such as affordances, instruments, actions, roles, and identities) either interpret each other, or interpret the events and processes that originally related them. What is therefore crucial about these interpretants is that they constitute relatively lasting material traces of the relatively fleeting processes that gave rise to them.[21] As will be seen, these ideas are inspired by Heidegger's analysis of 'The Worldliness of the World' in *Being and Time* (1996 [1953]: 59–105; and see Dreyfus 1991), especially his notion of 'references' [*Verweisungen*] — as a kind of non-addressed, iconic-indexical semiotic process.

For any two semiotic processes, A and B, A will be said to *incorporate* B (and hence be an interpretant of it) if the sign of B relates to the sign of

Table 2. *Embedded interpretants that incorporate, realize, or contextualize*

Incorporation	For any two semiotic processes, A and B, A will be said to incorporate B (and hence be an interpretant of it) if the sign of B relates to the sign of A as part-to-whole, and the object of B relates to the object of A as means-to-ends. For example, in the case of instruments (semiotic processes whose sign is an artificed entity and whose object is a function), a wheel incorporates a spoke.
Realization	For any two semiotic processes, A and B, A will be said to realize B (and hence be interpreted by it) if B is an objectification of the object of A. That is, the things that people create provide interpretations of the purpose of their acts of creating. For example, baking (as an action with a purpose) realizes a pie (as an instrument with a function), and thus a pie is an interpretant of baking.
Contextualization	For any two semiotic processes, A and B, A will be said to contextualize B, if A is required to interpret B, or at least assists in interpreting B. For example, a hammer contextualizes a nail. And a sword contextualizes a sheath. That is, nails make no sense without the existence of hammers; and sheaths make no sense without the existence of swords.

A as part-to-whole, and the object of B relates to the object of A as means-to-ends.[22] That is, the sign-component of A is a whole in which the sign-component of B is a part; and the object-component of A is an end to which the object-component of B is a means. A good indication of incorporation is that one often cannot interpret A (as 'the whole') without simultaneously interpreting B (as 'the part').

For example, in the case of instruments (semiotic processes whose sign is an artificed entity and whose object is a function), a wheel incorporates a spoke. Thus, a complex instrument is an interpretant of the simpler instruments that it incorporates. And in the case of actions (semiotic processes whose sign is a controlled behavior and whose object is a purpose), taking off one's hat incorporates raising one's hand. Thus, an entire action is an interpretant of any phase of the action that it incorporates. Indeed, we are often perplexed by the meaning of certain instruments and actions until we see them incorporated in more familiar instruments and actions.

While the prototype of incorporation is an instrument incorporating another instrument, or an action incorporating another action, most constituents of the residential whole can incorporate most other constituents. For example, an instrument can incorporate an affordance (a hammer incorporates steel); an action can incorporate an instrument (driving to work incorporates an automobile); a role can incorporate an action (being a father incorporates scolding one's children); and an identity can

incorporate a role (being a certain religion incorporates being a good husband); and so on. In cases where there is no figure-ground asymmetry between two semiotic processes (e.g., no asymmetric relation of part-to-whole or means-to-ends), there can be mutual incorporation or *co-incorporation*. For example, each wall of a house co-incorporates the other walls.

For any two semiotic processes, A and B, A will be said to *realize* B (and hence be interpreted by it) if B is an objectification of the object of A. This is a very simple point: people create things, and the things that they create provide interpretations of the purpose of their acts of creating: products are interpretants of the purposes of productive processes (and see Hegel 1977 [1807]; and Kojève 1980 [1947] for related points in a dialectical idiom).

For example, baking (as an action with a purpose) realizes a pie (as an instrument with a function), and thus a pie is an interpretant of baking. Indeed, as will be discussed in the following sections, it is difficult to specify the function of an instrument without reference to the purpose of the action that realized it. While the prototype of realization is an instrument being realized by an action (in particular, the production of use-values through labor), most constituents of the residential whole can realize most other constituents. For example, a parent (as a role with a status) realizes a child (as a role with a status), and thus the role of socialized child is an interpretant of the role of socializing parent. Being a certain religion (as an identity with a value) may realize an action (avoiding a bar), and thus avoiding bars may be an interpretant of being a certain religion.

More generally, any change in a state of affairs provides an interpretation of the purpose of the action that caused the change (assuming that the new state of affairs is used as means to some end — as a kind non-entified instrument). For example, I cause a boulder to knock down a castle wall (change in state of affairs), and then I subsequently enter through the breech (interpretant of purpose of destroying wall). Indeed, much of the built environment — both the instruments that surround us and the roles that we socialize or train others to inhabit — constitutes an interpretant of the actions of the community that builds such instruments and socializes such roles. In cases where there is no figure-ground asymmetry between two semiotic processes (e.g., no relative distinction between process and product), there can be mutual realization or *co-realization*. For example, two individuals training at boxing may co-realize each others' roles as boxers.[23]

Finally, there is one kind of relation that falls out of this typology insofar as it doesn't necessarily involve interpretation (insofar as one sign

doesn't necessarily bring the other sign into being), but may aid interpretation (see Jakobson's definition of shifter [1990]). For any two semiotic processes, A and B, A will be said to *contextualize* B, if A is required to interpret B, or at least assists in interpreting B. Most incorporating and realizing interpretants are also contextualizing interpretants, but not vice versa. Hence, contextualization is the most general, or diffuse, form of interpretation.

For example, a hammer contextualizes a nail. Books contextualize a bookshelf. And a sword contextualizes a sheath. That is, nails make no sense without the existence of hammers; bookshelves make no sense without the existence of books; and sheaths make no sense without the existence of swords. Indeed, many interpretants of a hammer require nails; many interpretants of bookshelves require books; and many interpretants of sheath require a sword. That is, key modes of interpreting a bookshelf (say, wielding it) cannot take place without books; and certain key modes of interpreting a nail cannot take place without hammers. Indeed, imagine an archaeologist who is trying to figure out the meaning of some ancient artifact (like a sheath), and being perplexed by it until a contextualizing artifact is discovered (like a sword).

While the prototype of contextualization is thus an instrument contextualizing another instrument, most constituents can be contextualized by other constituents: an action contextualizes an instrument (e.g., sleeping contextualizes a bed); an affordance contextualizes an instrument (e.g., grass contextualizes a lawnmower, potable liquid contextualizes a glass); a role contextualizes another role (e.g., a husband contextualizes a wife, an aunt contextualizes a nephew); and so forth.[24] In cases where there is no asymmetry, there can be mutual contextualization, or *co-contextualization*. For example, a screw and screwdriver co-contextualize each other; as do an outlet and a plug; as do a lock and a key.

3. Affordances

An *affordance* is a semiotic process, whose sign is a natural feature, whose object is a purchase, and whose interpretant is usually an instrument that contextualizes or incorporates it, an action that heeds it, or an utterance that represents it.[25] Gibson famously coined the term affordance, defining it as 'what [the environment] offers the animal, what it furnishes, either for good or ill' (1986 [1979]: 127). While this section is inspired by Gibson, it departs substantially from his framework by theorizing affordances in a social and semiotic idiom.[26]

Saying that the signs of affordances are natural features explicitly contrasts them with the signs of instruments, which are artificed entities.[27] By *natural* is meant that the sign of an affordance is not the realized interpretant of an action, where this action has as its purpose the pairing of the sign (as a natural feature) and its object (as a purchase). Channeling Marx, we might say that, 'In this class are included all means of production supplied by Nature without human assistance, such as land, wind, water, metals in situ, and timber in virgin forests' (1967 [1867]: 197). Nor do affordances incorporate other affordances: they may include them (as the result of natural composition or happenstance), but they are not an interpretant of them (as the result of some human action).[28] This means that while affordances are signs (that can be subsequently interpreted), they are not usually interpretants (of signs that were previously signified).[29]

By *feature* is meant that the sign consists of some swatch of the environment that is continuously present to the senses (and hence 'objective' in one sense), but not necessarily surrounded by a medium, detachable from its place, portable to other places, or handy relative to the size and strength of humans (and hence not usually 'object-like'). Such features turn on the shape, size, color, texture, or illumination of some surface (Gibson 1986 [1979]: 33–36). In this way, natural features are often inseparable parts of wholes, and wholes with inseparable parts. As may be seen, while they often have many of the traits of stereotypic signs (being sensible, compositional, and persistent), they are not usually segmentable, stable, or symmetric. For example, a natural feature might be a swatch of tree bark, the graspable surface of a stone, a bush, the stem of a plant, air as a medium, and so forth.

In everyday terms, the OED (second edition, 1989) provides one useful description of a purchase: 'Hold or position for advantageously exerting or applying power.' This bares a family resemblance to what Gibson meant by an affordance, in terms of what 'the environment offers the animal … either for good or ill.' However, not using a semiotic idiom, Gibson did not distinguish between affordances as semiotic processes, natural features as their signs, purchases as their objects, and modes of heeding them (i.e., actions or controlled behaviors) as their interpretants. Hence, what he calls an affordance is closer to how one might define a purchase (as an object), and what he calls a surface layout (see below) is closer to how one might define a natural feature (as sign). In any case, a purchase might be loosely understood as the way in which a natural feature (or sign) enables or constrains an organism's actions, allowing or disallowing them from exerting power, permitting or prohibiting various modes of behavior, and/or providing organism-specific succors and

perils. In this way, a purchase is constituted as much by what it disallows as by what it allows, as much as by the behavior it constrains as by the behavior it enables.[30]

In this regard, Gibson (1986 [1979]: 16–32) described many different kinds of affordances. In particular, there are three superordinate affordances: mediums, substances, and surfaces. *Mediums* (such as air for humans and water for fish) afford locomotion and perception — in the idiom introduced here, locomotion and perception are their key purchases. Most have been essentially invariant throughout human and animal evolution. *Substances* (trees, rocks, and so forth) are those portions of the environment that do not afford locomotion or perception for animals — thus, lack of locomotion and perception (through them) are their key purchases. They tend to be relatively rigid, opaque, and heterogeneous. While water is a medium for aquatic animals, it is a substance for terrestrial animals. Substances afford many things — as evinced, for example, in our energetic interpretants of them: eating, manipulating, hiding, nesting, escaping, and so forth. Finally, *surfaces* stand at the intersection of any medium and substance. The ground, as the earth-air interface (i.e., not the semiotic sense), is perhaps the most important surface for animals. Surfaces have a *layout*, and the layout determines how light is reflected from the surface, and thus how the surface is perceived. Such surface layouts have shape (e.g., face, edge, vertex, enclosure), illumination (e.g., weak or strong), absorption (of the illumination falling on it), reflectance (or the ratio of reflected to incident light), and distribution of reflectance ratios for different wavelengths of light (and hence color). As the key elements of any surface-layout, these are some of the key features of the sign-component of any affordance. (The sign-component is usually a gestalt of such features.)

Besides these superordinate affordances, Gibson defined a number of more specific terms for characterizing surface layouts (cf. 1986 [1979]: 33–44). An *open environment* is a layout that consists of only the ground (as the earth-air interface). An *enclosure* is a layout of surfaces that surrounds a medium. A *detached object* is a layout of surfaces completely surrounded by a medium. An *attached object* is a layout of surfaces not completely surrounded by a medium. A *place* is a location in the environment specified relative to other places (rather than by reference to a point in Cartesian coordinates). A *sheet* consists of two parallel surfaces enclosing a substance. A *stick* is an elongated object. And so forth. It should be stressed that these are layouts, and hence the sign-component of affordances (and/or features of such sign components); they are not affordances per se — which would require some characterization of their objects and interpretants. A stick, for example, can constitute an infinite

number of affordances — providing various purchases as heeded by various actions — though it has a single layout.[31]

Semiotically speaking, the purchase of an affordance is an object, and hence the conditional relatum of all interpretants of the affordance, where these interpretants are appropriate and effective (as evinced in the sanctioning practices of a community and as embodied in the dispositions of its members).[32] Of course, what counts as appropriate and effective is determined by many interrelated factors, as a function of that affordance's embedding in the residential whole. Foremost among these is the purpose of the action that heeds the affordance (and hence the emphasis on enablement and constraint, or permission and prohibition, above). Other important factors are as follows: the functions of the instruments or statuses of the roles that incorporate it; the functions of the instruments that are contextualized by it; the purchases of other affordances and the functions of instruments that contextualize it; and so forth. For example, the exact same swatch of wall-space may provide very different purchases depending on the purpose of one's action (to hang an emergency exit sign versus to scrawl obscene graffiti), depending on the status of one's role (rational engineer or wild teenager), depending on the value of one's identity (family man versus rebel), depending on the functions of one's instruments (prefabricated sign versus spray paint), and so on. Or the exact same swatch of terrain can provide very different purchases if one is walking or running, in a wheelchair or on crutches, wearing shoes or going barefoot, an expert gymnast or crawling baby, fleeing the police or planting daisies. This resonates with Gibson's point that an affordance (or rather purchase) exists at the intersection of the organism and the environment — what was called 'complementarity' in the introduction. However, here the organism itself is further understood as a nexus of affordances, instruments, actions, roles, and identities; and the environment is further understood as a nexus of other and others' affordances, instruments, actions, roles, and identities.

Insofar as the purchases of affordances are holistically determined in this way, it ensures that the ground of any affordance is as iconic-indexical as it is indexical-symbolic. Indeed, one might say that the ground of any affordance, in comparison to the ground of any other constituent, is maximally iconic-indexical and minimally indexical-symbolic. In terms of sanctions, or the regimentation of appropriate and effective interpretants of affordances, this means that cultural norms involving affordances are maximally regimented by natural causes. In this way, being appropriate and effective may often be phrased in terms of being feasible and efficacious.[33] Loosely speaking, one can do anything one wants with affordances so long as they allow one to do what one wants. Such regimentation by the causal order

means that affordances are widely shared across human communities and, indeed, across primates and mammals more generally. Nonetheless, insofar as environments differ as a function of geography, insofar as purchases are determined by co-occurring functions, purposes, statuses, and values, and insofar as these objects are determined by the sign-community in question (and are regimented by the normative order more generally), these points in no way entail any kind of environmental determinism — but rather a kind of environmental enablement.

The human body — in the biological and/or cultural sense discussed in 'The semiotic stance' — relates to affordances and instruments in a number of complicated ways. First, the human body is itself somewhere between a nexus of affordances and a nexus of instruments. It is somewhere between because it is partially constituted by natural features with purchases (as genetically endowed to us), and it is partially constituted by artificial entities with functions (as socially inscribed on us). Second, as noted in the introduction, any interpretation of an affordance or instrument (say, through heeding or wielding it, respectively) *cointerprets* and *cosignifies* the affordances and/or instruments of the body — its purchases and functions. The hand must meet the handle halfway. And third, one might go to the extreme, and say that the human body is a phylogenetic interpretant of the earth's affordances.[34] In this way, not only does the causal order regiment the feasibility and efficaciousness of interpretants of affordances, but it can do that in ontogenetic time (regimenting an individual's behavior), in historical time (regimenting a community's behavior), or in phylogenetic time (regimenting the behavior of a species).

The interpretants of affordances are manifold. Insofar as an instrument contextualizes an affordance, the former is an interpretant of the latter. For example, sand strewn on a patch of ice interprets the (lack of) purchase provided by ice (in this case, a *lack of* traction). Insofar as an instrument incorporates an affordance, the former is an interpretant of the latter. For example, a knife is an interpretant of steel. A wall is an interpretant of stones. Insofar as an action heeds an affordance, the former is an interpretant of the latter. For example, looking through a window is an interpretant of the transparency of glass. Grabbing a hammer is an interpretant of the grip provided by its handle. Spitting is an interpretant of saliva (and gravity and wind). Notice that, insofar as purchases have their being in the interpretants they determine (as their conditional relata), and insofar as signs (i.e., natural features) have iconic-indexical relations to their objects (i.e., purchases), interpretants have iconic-indexical relations to their signs. Most energetic interpretants of affordances may therefore be called *inverse iconic-indices*, or 'mirror-interpretants' of their signs, having a kind of hand-to-handle and/or mould-to-cast relation to them.

The representational interpretants (or signs with propositional contents) of affordances are manifold. For example, there are words for many relatively segmentable affordances: *cliff*, *water*, *air*, *rock*, *tree*, *bird*, *fire*, *leaf*, *twig*, *paw*, and so forth. In this way, many relatively detachable 'natural objects' in our environment, or their parts, have words that refer to them. Indeed, there are even words for purchases per se: *traction*, *sharpness*, *rigidity*, *heft*, *passage*, *leverage*, *mobility*, and *grip*. In general, affordances tend to be less objective and occurrent than instruments because they are 'found' rather than realized, because they are usually continuous rather than segmentable, and because they are usually fixed rather than portable. One typically only notices purchases when something affords no purchase — or, rather, when something's purchase is what it prohibits (rather than permits). Indeed, there a multitude of widely addressed signs with propositional content which turn on the existence of prohibiting or perilous purchases: *soft shoulder*, *slippery when wet*, *harmful if swallowed*.

Gibson's use of affordances was meant to characterize what any animal (as a sentient and animate entity) finds in its environment. It is therefore worthwhile to stress how affordances differ depending on whether or not the animal in question is human. The claims here are by degrees rather than dichotomous. First, for the simple reason that nonhuman animals rarely realize instruments, animals rarely incorporate affordances into instruments. Borderline cases include bird nests and beaver dams. Second, insofar as human instruments, actions, roles (and identities) are much more varied and numerous than those of other animals (for example, we do not require an anthropology of bears so far as there is relatively little group variation), the affordances they find are much more variable and numerous. Third, animals do not have representational interpretants, and hence never confer propositional content upon affordances. In this way, the purchases of affordances for animals are never inferentially articulatable, and hence are always 'given.' And fourth, the affordances of animals are not usually regimented by cultural norms, only by natural causes. Hence, the grounds of affordances for animals are purely iconic-indexical, and not indexical-symbolic.[35] Domestic animals are again another exception; as are captive chimps. This does not mean that animal behavior is meaningless: purchases still stand at the intersection of the animal and its environment (as do purposes); and animals can misinterpret affordances (and undertake 'ill-advised' actions), and thereby err in their interpretations of the world. More generally, while nonhuman animals probably don't have instruments or identities, they certainly have actions and affordances as theorized here — behaving purposefully and experiencing purchasefully.

4. Instruments

An *instrument* is a semiotic process whose sign is an artificed entity, whose object is a function, and whose interpretant is usually an affordance that contextualizes it, another instrument that incorporates it, an action that wields it, or an utterance that represents it.

Saying that the signs of instruments are artificed entities explicitly contrasts them with the signs of affordances, which are natural features.[36] By *entity* is meant that the sign is relatively 'object-like.' For example, borrowing notions from Gibson (1986 [1979]), the signs of instruments are continuously present to the senses, surrounded by a medium, detachable (from context), portable (across contexts), and handy (relative to the dimensions and capacities, or size and strength, of humans). Indeed, instruments may be the only constituents of the residential whole that have relatively stereotypic signs: sensible, segmentable, stable, persistent, and compositional. Nonetheless, it should be stressed that the notion of entities as 'object-like' is just a stereotype: many instruments — from computer programs to artificial snow — do not have this characteristic.[37] Indeed, at the extreme of what one will call an instrument is a realized state (state-change, or event). For example, as discussed in section 2, one might use a boulder to break down a wall, and then use the broken-down wall as a means to storm a building.

By *artificed* is meant that the instrument was realized by the action of a human, where this action had as its purpose the pairing of the artificed entity (as a sign) and its function (as an object). For example, a pot is the realized interpretant of the action of throwing clay; a pie is the realized interpretant of baking. Relatedly, instruments often incorporate affordances (in the guise of 'raw materials'), or other less complicated instruments. For example, a hammer incorporates the affordances of wood and steel; a bicycle incorporates the instruments of a frame and wheels; and so on. And instruments often contextualize other instruments. For example, a sword contextualizes a sheath, and a wine bottle contextualizes a corkscrew. In short, instruments are not only signs to be interpreted by the actions that wield them or the words that refer to them, they are also interpretants of the actions that realized them and the affordances and instruments they incorporate and contextualize.

In everyday terms, and separating out the more specialized definitions discussed in 'The semiotic stance,' a function usually means what an instrument is designed to do. For example, the OED (second edition, 1989) provides the following description: 'The special kind of activity proper to anything; the mode of action by which it fulfils its purpose.' In this light, the function of a pen might be to transfer ink onto paper in a consistent,

non-smearing, fine-lined fashion. That is, a pen wielded appropriately has this transference of ink as the purpose (i.e., object) of the wielding action; and a pen wielded effectively has this transference of ink as the realized interpretant of the wielding. Functions of specific instruments are usually defined by describing how or why one uses the instrument in question. In particular, most definitions of functions are really representational interpretants of either common energetic interpretants (e.g., 'a hammer is used to pound in nails'), or common realizing interpretants (e.g., 'this machine makes sausages'). Hence, it is a description of what to do with an instrument, and/or what an instrument does. Marx, following Hegel, implicitly defines a function in terms of causal properties linked to human purposes: '[Man] uses the mechanical, physical, and chemical properties of objects so as to make them act as forces that affect other objects in order to fulfill his personal goals' (quoted in Vygotsky 1978: 54). In a metaphor that is as illuminating as it is misleading, one might say that just as an instrument mediates between an organism and an environment, and between culture and nature more generally, a function mediates between a sign (in this case an artificed entity) and an interpretant (in this case a mode of wielding the artificed entity).[38]

Semiotically speaking, the function of an instrument is an object, and hence the conditional relatum of all interpretants of the instrument, where these interpretants are appropriate and effective (as evinced in the sanctioning practices of a community and as embodied in the dispositions of its members).[39] Of course, what counts as appropriate and effective is determined by many interrelated factors, as a function of that instrument's embedding in the residential whole. Foremost among these are the purpose of the action that realized the instrument, and the purpose of the action that wields the instrument.[40] Other important factors are as follows: the purchases of the affordances and functions of the instruments that contextualize it; the purchases of the affordances and functions of the instruments that are incorporated by it; the functions of the instruments that incorporate it; the function of the instrument that is realized by the action that wields it; and so forth.

For example, the function of a hammer is constrained by the purpose of the one who wields it (pounding in a nail to make a table versus breaking a window to steal jewelry). It is constrained by the status of one's role (carpenter versus looter). It is constrained by the value of one's identity (mensch versus nogoodnik). It is constrained by other instruments that contextualize the hammer: nails versus windows, workshops versus storefronts. And it is constrained by affordances that are simultaneously heeded: steel versus glass, daylight versus darkness. Indeed, one can also use a hammer to scratch one's back, threaten a neighbor, bang on a pipe,

or weight a plumbline. One might use the term *legifunction* to refer to the standard function of an instrument (irrespective of any particular interpretant of it); the *sinfunction* would refer to the specific function of any instrument (in some particular interpretation); and the *qualifunction* would refer to the potential function(s) of an instrument. (And such ideas may be generalized for purchases, purposes, statuses, and values; and one would do well to distinguish between sinfunctions or sinpurchases, etc., that are replicas and singularities.)

Insofar as the functions of instruments are holistically determined in this way, it ensures that the ground of any instrument is as iconic-indexical as it is indexical-symbolic. In terms of sanctions, or the regimentation of appropriate and effective interpretants of instruments, this means that the cultural norms involving instruments are highly regimented by natural causes. Thus, being appropriate and effective is partially determined by being feasible and efficacious. For example, while one *can* use a hammer as a screwdriver, it is less feasible to use a hammer as a chair; and, conversely, while one *may* use scissors or shears at a ribbon-cutting ceremony, it is not appropriate to use a switchblade. In both cases, there is a 'strain' involved, a strain that is grounded in the iconic-indexical or indexical-symbolic nature of instruments. In short, instruments, existing at the boundary between iconic-indices and indexical-symbols, can be inappropriately wielded and still be efficacious, and can be feasibly wielded and still be ineffective.

Apropos of this discussion of strain (see the section on motivation in 'The semiotic stance'), semiotic instruments should be distinguished from non-semiotic instruments as a function of their effects, their grounds, their sanctions, and their interpreters. The first four of these points are relatively transparent; but the last one will require some elucidation. A semiotic instrument, such as a speech act (or stereotypic sign more generally), is wielded to change a social or intentional status: in baptism, a child acquires a name and a social status; in assertion, a person acquires a belief.[41] A non-semiotic instrument, such as a hammer, is wielded to change a physical state: a nail is driven into a board with a hammer; a light goes on with a switch. The ground of semiotic instruments is relatively indexical-symbolic. The ground of non-semiotic instruments is relatively iconic-indexical. The appropriateness and effectiveness of interpretants of semiotic instruments are relatively regimented by cultural norms. The appropriateness and effectiveness of interpretants of non-semiotic instruments are relatively regimented by natural causes (and hence may be understood in terms of feasibility and efficaciousness). And finally, semiotic instruments have their effects brought about by a person's interpretation of them. Non-semiotic instruments have their effects brought about by

the reaction of an 'object' to them. In this way, semiotic instruments involve two sets of circumstance-behavior pairings: one can inquire into the normative linkage between the first circumstance (instrument) and the first behavior (wielding action); and one can inquire into the normative linkage between the second circumstance (wielding action, or first behavior) and the second behavior (change in intentional or social status). Non-semiotic instruments involve one set of circumstance-behavior pairings and one set of cause-effect pairings: one can inquire into the normative linkage between the circumstance (instrument) and the behavior (wielding action); and one can inquire into the causal linkage between the cause (wielding action, or first behavior) and the effect (change in physical state). For semiotic instruments, then, there are two interpreters: the one who interprets the semiotic instrument by wielding it; and the one who interprets the wielding of the semiotic instrument by undergoing a change in social or intentional status. For non-semiotic instruments, there is one interpreter and one reactant: the one who interprets the non-semiotic instrument by wielding it; and that which undergoes a change in state by reacting to the wielding of the non-semiotic object. This reaction, then, is grounded in a natural regularity. (It should be stressed that, while semiotic and non-semiotic instruments are being contrasted as starkly as possible, the difference between them is really one of degree and not one of kind.)

If a function is the object of an instrument, is it best to think of it as a dynamic object or as an immediate object? Certainly the function of an instrument is best revealed by the sign itself; and certainly the function of an instrument is not an event with causal properties that could somehow bring the sign into being. For these reasons, a function is best considered as an immediate object. However, considering that instruments are the realized interpretants of actions which had as their purposes the pairing of this sign (artificed entity) with this object (function), one can also think of them as *dynamic objects at one degree of remove*. It is for this reason that their objects are often called 'purposes' instead of 'functions,' and often understood to be quasi-causal of them.[42] For example, as discussed in 'The semiotic stance,' Aristotle called the function of an instrument one of the 'causes' of that instrument. And Taylor (1985) has had to argue that, though we talk about machines (and other complicated, semi-automated instruments) as having purposes, they only have these derivatively, as conferred upon them by human concerns. In any case, while the function does not bring the sign into being in any strict sense, given that functions are constrained by the purpose of the action that wields the semiotic process, and the purpose of the action that realizes the semiotic process, they have a dynamic aspect.

There are many ways the same artificed entity (as a sign) can acquire other objects besides its function. An instrument can be downgraded into an affordance, such that the natural features of the artificed entity are heeded for their purchases, and such that the indexical-symbolic ground of the semiotic process is minimized while the iconic-indexical ground is maximized. For example, it is easy to imagine what Robinson Crusoe could do with dental floss besides cleaning his teeth. New functions are also continually being found for old forms, or new objects for old signs. For example, skateboarders are constantly redefining the functions of public architecture: sidewalks, walls, ramps, curbs, handrails, and so forth. In certain cases, this is unconscious and carried out over many years. Indeed, in a complex linkage between a new function replacing an old function, and functions being understood as purposes, the new function is taken by users to be the *raison d'etre* or 'realized purpose' of the old form. Maine, in his *Ancient Law*, Nietzsche, in his *Genealogy of Morals*, and Sapir, in his *Time Perspective*, made much of this point. Indeed, one sense of agency is the degree to which one can get a new function for an old form institutionalized, such that a sinfunction (say, a norm-violating token of usage) becomes a legifunction (or normative type of usage) — or such that a singularity becomes a replica. Indeed, there will always be the Marquis de Sades who go sprinting ahead with imaginative interpretations of the possible functions of that instrument of instruments the human body, or creative functions for everyday items such as candle sticks and candy (not to mention novel statuses for spouses and valets, and novel values for nobles: *sadism*). Finally, as a function of one's purposes one interprets one's environment differently: a pen can become a knife if one is attempting to defend oneself; and, as Ani DiFranco notes, 'every tool is a weapon if you hold it right.' Indeed, one characteristic of an 'emotion' or 'mood' is to shift the affordances and instruments (and actions, roles, and identities) one finds in the environment. For example, if one is nervous every alley becomes a hiding place; if one is paranoid every action becomes malevolent; if one is in love the whole world's Jewish (or Korean or Muslim, etc., depending on who 'one' happens to identity with); and so forth. Instruments (or artificed entities) can have other objects besides functions. In particular, given that the wielding of an instrument can (metonymically) index the heeding of an affordance, the undertaking of an action, the performing of a role, or the filling of an identity, instruments can stand for affordances (or purchases), actions (or purposes), roles (or statuses), and identities (or values). Veblen's (1991 [1899]) account of pecuniary emulation is just one of the ways this comes about: the instrument realized by an action (if relative permanent and public) comes to stand for, and/or publicize, the identity of the actor,

and subsequently becomes sought for the sake of this publicization (rather than its original function). Finally, in a Marxist idiom, the reduction of an instrument's meaning to its price, or the emphasis on exchange-value at the expense of use-value, is the most pervasive kind of revaluation that instruments — and all other constituents — may undergo.

The interpretants of instruments are manifold. Insofar as an instrument incorporates another instrument, the former is an interpretant of the latter. For example, a bicycle is an interpretant of a bicycle seat. Similarly, insofar as an instrument contextualizes another instrument, the former is an interpretant of the latter. For example, a hammer helps to interpret a nail. And a jar helps to interpret a lid. Lastly, insofar as an action wields an instrument, the former is an interpretant of the latter.[43] For example, writing is an interpretant of a pen. And climbing is an interpretant of a ladder.[44] Notice that, insofar as functions have their being in the interpretants they determine, and insofar as signs (i.e., artificed entities) have iconic-indexical relations to their objects (i.e., functions), interpretants have iconic-indexical relations to their signs. As with affordances, then, many interpretants of instruments can be called 'inverse iconic-indices' or *mirror interpretants* of their signs insofar as they have a kind of lock-and-key or hand-and-handle relation to each other. And notice that, terminologically, instruments are 'wielded,' whereas affordances are 'heeded.' This phrasing reflects two facts: first, one tends to use affordances to change the state of one's body in the world, and one tends to use instruments to change the state of 'objects' in the world; and second, the typical actions that interpret instruments are relatively active, whereas the typical actions that interpret affordances are relatively passive (one wields an instrument as part of an assimilating strategy; one heeds an affordance as part of an accommodating strategy). Again, these are only tendencies; but it is worthwhile pointing them out, and thereby justify the theoretical terms that have been chosen.

Representational interpretants of instruments are manifold. Any word that refers to an instrument (e.g., hammer, nail, skateboard, kettle) provides an interpretant of that instrument. As discussed in 'The semiotic stance,' the concepts of these words, or their inferentially articulated objects, turn on the functions of the instruments they refer to (cf. Keil 1989).[45] These concepts can be quite complex. For example, Wierzbicka's (1985) definition of the word *teacup* goes on for several pages, and — from the standpoint of this theory — basically consists of representational interpretants of common energetic, realizing, incorporating, and contextualizing interpretants involving teacups in certain social milieus. The fact that there are so many words for instruments, and/or productive morphology for deriving them from verbs, merely expresses the fact that

most of our environment consists of instruments, most of our actions require instruments, and instruments are often foregrounded in discourse (e.g., *she tripped him with her cane and dispatched him with her knitting needle*). Of course, with expertise and complicated instruments more generally, there are many instruments that only experts can name. Hence, there are useful shifter-like words such as *thingamajig*, *gizmo*, and *doohickey*. Conversely, many people may know the function of a particular instrument, but not be able to interpret it themselves: they can appropriately wield the right representational interpretant (e.g., 'that's a car'), but not the right energetic or ultimate interpretant (e.g., actually driving a car). In any case, what is crucial about representational interpretants of instruments, is that they can confer conceptual contents on the functions of instruments themselves. Besides words that refer to instruments per se, there are other types of representational interpretants of instruments that involve descriptions of habitual modes of wielding instruments (e.g., *that's used to pound in nails*) or incorporating instruments (e.g., *that's the leg of a chair*).

Besides the superordinate distinction betweens semiotic instruments and non-semiotic instruments already mentioned, there are many different *types of (non-semiotic) instruments*. Marx famously distinguished between tools and machines (cf. 1967 [1867]: 351–365; and see Sahlins 1972: 79–82). That is, humans assimilate tools to themselves and accommodate themselves to machines. In some sense, this is a question of whether the human wields the instrument, or the instrument wields the human. One might distinguish instruments as a function of how much specialized skill is required to wield them (and hence how particular the status of the wielder has to be). Indeed, as Sahlins (1972) argues, it is probably the case that for much of human existence it was the skill and ingenuity of the wielding actor, not the power and intricacy of the wielded instrument, which determined the efficaciousness of the instrument in question. One might distinguish instruments depending on how specialized their function is. For example, a machete's function is so general that only ingenuity and skill can limit its usage; whereas a carburetor's function is so specialized that it only does one thing — and it can only do that in the context of many other specialized instruments. One might distinguish instruments depending on their 'complexity': how many other constituents (affordances, instruments, actions, roles, and identity) are required (via incorporation, contextualization, realization, and wielding) for them to function. Indeed, Latour's sense of a *network* (1988 [1984]) can usefully be operationalized in terms of these enabling and constraining constituents: they are its network. And part of the meaning of a *mode of production* is the relations between affordances (raw material), instruments

(forces of production), actions (labor, sometimes also considered raw material), roles (relations of production), and identities (struggling proletariat and simpering capitalist). And finally, one might distinguish between well-designed and poorly designed instruments. For example, assuming an instrument is well-designed, to wield it appropriately (e.g., hold it correctly, move it correctly, interact with other instruments and affordances correctly) usually means it will be effective and/or efficacious (changing some state of affairs: the light comes on, the nail goes in, etc.). Similarly, assuming an instrument is well-designed, merely by looking at it one knows how to wield it — e.g., where to hold it, what to do with it, and what it does (see Norman 2002 [1988], who attempts to make Gibson safe for design).

5. Actions

An *action* is a semiotic process whose sign is a controlled behavior, whose object is a purpose, and whose interpretant is usually an instrument that is realized by it, another action that incorporates it, another's (re)action that contextualizes it, a role or identity that incorporates it, or an utterance that represents it.

Saying that the sign of an action is *controlled* means that the actor determined when and where the behavior would happen. While not necessarily 'intentional' or 'chosen' or 'self-conscious,' the behavior was not an accident or a mistake, nor did it happen in the actor's sleep or as a reflex arc. In this way, all actions are energetic interpretants, but not all energetic interpretants are actions. In 'The semiotic stance,' control was articulated in terms of the expression of a sign (one determines when and where a sign is expressed), just as composition was articulated in terms of the relation between an expressed sign and its object (one determines what a sign stands for, and/or which sign stands for an object), and commitment was articulated in terms of the interpretant of this sign-object relation (one determines what interpretant will be created by this sign-object relation). In this way, control does not presume composition or commitment.[46] Of course, control is a by-degrees notion, turning on the relative leeway of when and where a behavior may be expressed. And, of course, communities may have different norms of what behaviors count as controlled. Borderline cases include interjections, 'emotional responses,' and behaviors undertaken while drunk, asleep, hypnotized, catatonic, spellbound, and so forth.[47]

By *behavior* is meant any state (sitting, kneeling, standing), intransitive or transitive state-change (getting up, going to sleep; killing a bear, taking out the trash), and intransitive or transitive activity (running, eating;

walking a dog, feeding a child).[48] As may be seen from these examples, such behaviors are not passive (contrast *he was killed* or *he became afraid*) or experiential (contrast *he saw her* or *she believes him*). Such behaviors do not necessarily involve muscular activity, or the effects of muscular activity; they might involve activities like thinking, worrying, pondering, calculating, imagining, and remembering. Controlled behaviors might last a moment (he shot her a look of pure hatred) or go on for years (she built a surface-to-air missile). Canonical behaviors are probably a position-change of the biological body, or any one of its limbs: from an origin, along a path, to a (projected) destination.[49] Almost all actions are incorporating interpretants of other constituents of the residential whole (e.g., modes of heeding affordances or wielding instruments).[50] Indeed, actions often incorporate other actions, such that the sign of the incorporating action stands as whole to the sign of the incorporated action as part, and the object of the incorporating action (a purpose) stands as an end to the object of the incorporated action as a means. Thus, in addition to being signs that have interpretants, controlled behaviors (or actions more generally) are interpretants of other signs. As may be seen from these examples, the signs of actions are usually segmentable, sensible, compositional, and even stable (but not persistent).[51]

In everyday terms, a purpose is often understood as an 'intention,' a kind of mental state, often self-conscious, that an actor holds before and during the undertaking of any behavior (thereby making it an 'action'), which can be understood as the reason for and cause of the behavior, and which can be represented as an end for which the behavior was a means. For behaviors which are movements, purposes are often thought of as destinations. For example, the OED (second edition, 1989) provides the following description of a purpose: 'That which one sets before oneself as a thing to be done or attained; the object which one has in view.' Weber's notion of meaning (*Sinn*) was essentially a purpose or intention is this sense: 'the acting individual attaches a subjective meaning to his behavior — be it overt or covert, omission or acquiescence' (1978: 4, 57). Thus Schutz, interpreting Weber in relation to Husserl, understands the 'meaning of any action [as] its corresponding projected act' (1967: 61). Keane has interpreted Schutz: 'As a result, intentional action already contains within it a split between subject and object, *prior* to any encounter with another person. This is a function of its temporal structure. Intentional action, being orientated to the future, represents to itself an *already completed* act' (Schutz 1967: 59–61). In this moment of imagination, self-consciousness takes the acting self as an object of perception, distinct from the perceiving self (Schutz 1967: 58): to move actively into the future necessarily entails self-objectification' (Keane 1997: 12). Pace Schutz, and

Schutz's interpretation of Weber, action (as a controlled behavior with a purpose) does not require self-consciousness, imagination, a subject-object split, or self-objectification. Indeed, most of these terms, whose origins may be found in German idealist philosophy, are meaningless in the theory presented here — though they do have semiotic and social analogues.

Semiotically speaking, the purpose of an action is an object, and hence the conditional relatum of all interpretants of the action, where these interpretants are appropriate and effective (as evinced in the sanctioning practices of a community and as embodied in the dispositions of its members). Of course, what counts as appropriate and effective is determined by many interrelated factors, as a function of that action's embedding in the residential whole. Foremost among these are the function of the instrument that is wielded by that action, and the function of the instrument that is realized by that action (including 'instruments' in the sense of realized state-changes and/or realized events). Other important factors are as follows: the purchases of the affordances and functions of the instruments that contextualize it; the purchases of the affordances and functions of the instruments that are incorporated by it; and the status of the role and the value of the identity that incorporate and/or contextualize it. Insofar as the purposes of actions are holistically determined in this way, it ensures that the ground of any action is as iconic-indexical as it is indexical-symbolic. In terms of sanctions, or the regimentation of appropriate and effective interpretants of actions, this means that the cultural norms involving actions are highly regimented by natural causes. Thus, being appropriate and effective is partially determined by being feasible and efficacious. In short, actions are just like instruments: existing at the boundary between iconic-indices and indexical-symbols, they can be inappropriately undertaken and still be efficacious, and they can be appropriately undertaken and still be inefficacious.

In this essay, the term purpose will be used to mean the object of a controlled behavior; the term 'intention' (in scare quotes) will be used to mean the putative psychological state that seems to cause controlled behaviors (à la the everyday sense, and Schutz and Weber to some degree); and the term intention (without scare quotes) will be used to mean a particular type of purpose: one that involves a representational interpretant that the actor commits to. Thus, an intention is a purpose that has propositional content conferred upon it (thereby making it inferentially articulated); and one that an actor internalizes or commits to (thereby self-regimenting their own interpretants). (Recall that, as per the definition given in 'The semiotic stance,' to 'commit to an interpretant' means being able to anticipate an interpretant, where this anticipation is evinced in

being surprised by, and/or disposed to sanction, non-anticipated interpretants.) And an 'intention' is a psychologization — perhaps warranted, but probably not — of an intention or purpose.

It is worthwhile clarifying the distinction between purposes and 'intentions.' A purpose is a semiotic object; whereas an 'intention' is a psychological state. Thus, a purpose is described in terms of a semiotic framework (e.g., the residential whole and semiosis more generally); whereas an 'intention' is described in terms of a psychological framework (e.g., the mind and psychology more generally). To make sense of purposes, one must simultaneously make sense of purchases, functions, statuses, and values; whereas to make sense of 'intentions,' one must simultaneously make sense of 'beliefs,' 'desires,' 'wishes,' and 'emotions.' (The use of italics indicates that these words will be theorized in a semiotic idiom in 'Representations of the world.') Purposes are phrased in an idiom that turns on signs, objects, and interpretants; whereas 'intentions' are phrased in an idiom that turns on 'subjects' and 'objects.' As an object, a purpose is as much an immediate object as it is a dynamic object: that is, it is both revealed by, and causal of, the controlled behavior (or sign). 'Intentions,' however, are usually understood as causal of the controlled behaviors that reveal them; and are not understood as objects that controlled behaviors stand for. Purposes primarily relate to an observer's (or interpreter's) point of view — which can include the actor herself; whereas 'intentions' primarily relate to the actor's or 'subject's' point of view. Thus, purposes are necessarily public (if only as interpreted via the subsequent incorporating action of the actor herself); whereas 'intentions' are necessarily private (unless announced by the actor herself). And finally, purposes are necessarily intersubjective; whereas 'intentions' are 'subjective.'

While a proper account of intentions will have to await 'Representations of the world,' it is worthwhile briefly enumerating the difference between a purpose and an intention. As defined here, an intention is a purpose with a representational interpretant that is committed to, or 'internalized,' by the actor (as the one who controls the behavior). Unlike purposes, which can have any range of interpretants, intentions specifically have representational interpretants (though they may have other kinds of interpretants as well). Unlike purposes, which are (semiotic) objects not otherwise specified, intentions have propositional content, and are thereby inferentially articulated. Unlike purposes, for which there may be many interpretants the actor does not commit to, for intentions the actor specifically commits to the (representational) interpretant. Unlike purposes, whose interpreters may be either observers or the actor, for intentions the primary interpreter is the actor. Unlike purposes, whose interpretants are primarily regimented by the sanctioning practices of a

community, for intentions the sanctioning practices are self-reflexively regimented by the actor herself. Unlike purposes, which may be relatively non-objective and/or non-occurrent, intentions can easily be made explicit by way of being articulated in a claim, reasons can be given for them, and their conditions of satisfaction can be observed. Unlike purposes, for which one's reasons need not be called into question, the reasons for intentions are specifically in question — one is often obliged to explain one's intention.[52] Finally, notice that this account does not require any kind of psychological meta-interpretations. Of course, when psychologized in a certain fashion, intentions are ontologized as special kinds of things: mental, private, self-conscious, causal, interrelated with other intentional states, and this set of things set off from objective or physical kinds, related to shame/pride (via the responsibility that tends to come with intentional actions), and so on. In this guise, prior intentions (versus intentions in action) are the exemplar of intentionality.

With these points in mind, one can ask whether nonhuman animals have purposes. They certainly do not have intentions as just defined, which would require propositional content and internalization (or commitment). And they only have 'intentions' insofar as a community projects these onto them. (Thus, many animals that humans nowadays interact with have 'intentions.') In regards to having purposes, however, the answer is *yes*, with the following qualifications. First, as with all constituents of the residential whole, they lack representational interpretants, and hence propositional content. Not only does this mean that they do not have intentions, it also means that the purposes they have are much simpler and circumscribed. Second, observers can attribute intentions to them (via representational interpretants), and reasons for those intentions — and their attributions can be quite good and behavior-predicting. However, the crucial difference is that animals cannot attribute intentions to each other in this way (or at least *as well* — as will be discussed in 'Representations of the world'). Third, while humans may regiment animals (via their sanctioning practices), animals do not regiment themselves; rather, nature is in charge of sanctions. The actions of animals, then, should be understood in terms of feasibility and efficaciousness, not appropriateness and effectiveness. Fourth, animals do not seem to be able to commit to others' interpretants of their actions. However, they do seem to be able to commit to their own incorporating interpretants: that is, a controlled behavior stands in a part-whole relation with another controlled behavior (and the purpose of the first controlled behavior stands in a means-ends relation with the purpose of the other controlled behavior); and an animal can feel frustration at not being able to achieve the whole (end) of which some behavior (or purpose) was a part (or means).[53]

The interpretants of actions are manifold. Insofar as an instrument is realized by an action, the former is an interpretant of the latter. For example, a portrait is an interpretant of painting.[54] As mentioned in the last section, this is one of the reasons that functions (of realized instruments) are often conflated with purposes (of realizing actions). Indeed, any change in state brought about by an action may be a realized interpretant of that action. For example, if one rolls a boulder down a hill to smash in the wall of a castle — and subsequently enters through the breach — then the breach in the wall is an instrument that provides a realized interpretant of the action (so far as one subsequently enters through the breach, thereby interpreting its function). Insofar as an affordance or instrument contextualizes an action, the former is an interpretant of the latter. For example, ice contextualizes walking slowly. And a tire pressure gauge contextualizes attending a gas station. Insofar as an action incorporates another action, the former is an interpretant of the latter. For example, running a race is an interpretant of any actual step within the race. And scratching one's nose is an interpretant of lifting one's hand. Insofar as one action reacts to another action, the former is an interpretant of the latter. For example, my stepping back and/or ducking is an interpretant of your balling your hand into a fist. Insofar as a role incorporates an action, the former is an interpretant of the latter. For example, being a father is an interpretant of playing with one's children. And being a secretary is an interpretant of taking memos.

The representational interpretants of actions are manifold. As mentioned, most descriptions of controlled behaviors count as representational interpretants of them: 'he was going to the store,' 'she grabbed her hat,' 'I raised my hand,' and so on. It may sound strange to say that descriptions of actions are interpretants of actions; and, indeed, this is not always true. For example, in certain degraded conditions one might describe a behavior *as* a behavior: 'his palm turned upward and arm moved forward' versus 'he held out his hand for change.' Thus, most descriptions of behavior are already interpretants of the purpose of that behavior, and hence representational interpretants of the action per se. To repeat a key point: what is crucial about representational interpretants is that they confer propositional content upon purposes, such that if internalized (or committed to) by the actor, they turn purposes into intentions.

6. Roles

A *role* is a semiotic process whose object is a status, whose sign is an enactment of that status, and whose interpretant is usually an affordance,

instrument, or action that contextualizes it, a role or identity that incorporates it, a role that is realized by it, or an utterance that represents it. Roles were treated in great detail in 'The semiotic stance,' and so this section only focuses on several aspects of roles insofar as they relate to the other constituents of the residential whole. Finally, before beginning, one minor terminological ambiguity should be noted: the term role can be used to refer to either the sign-component of a semiotic process (the enactment of a status, as per Linton's definition given below), or the entire semiotic process (the role-status-attitude relation itself, as per the title of this section.) That is, in a wide usage, the term role refers to a particular constituent of the residential whole; while in a narrow usage, it refers to the sign-component of this constituent.

The terms role and status are derived from Ralph Linton's famous definitions. For Linton, 'A status, as distinct from the individual who may occupy it, is simply a collection of rights and duties' (1936: 188). As examples, Linton offered the rights and responsibilities of being a player on a football team, a member of a family, or an employee within a corporation. Statuses are relationally defined as 'the polar positions in ... patterns of reciprocal behavior' (Linton 1936: 187). Thus, the rights and duties of one status reciprocally relate to the rights and duties of other statuses: the quarterback's status cannot be defined except in relation to the statuses of the wide-receiver, nose-guard, fullback, and so on; and the mother's status cannot be defined except in relation to the status of the father, children, grandparents, nanny, and so on.[55] In relation to status, Linton says a role is performed by an individual 'when he puts the rights and duties which constitute the status into effect' (Linton 1936: 187). A role (qua sign-component) consists of the enactment, or performance, of the rights and duties one is assigned by virtue of one's status. For this reason, roles are relatively heterogeneous things — *any* behavior that can be considered the enactment of a right or responsibility is a role. Finally, insofar as statuses are reciprocally defined, roles are congruous: the mother's actions are congruous with the son's actions; the wife's actions are congruous with the husband's actions; and so on.

Before continuing, one terminological stumbling block should be pointed out. Modern anthropologists and laypeople alike often take status to mean something like 'relative prestige.' In this pretheoretical sense, one has a 'high' or 'low' status, there are 'status symbols,' and so forth. In this sense, statuses are like 'pecking orders' for human beings. In contrast, Linton was quick to distinguish status from *rank* (or prestige more generally), understood as a hierarchy of relative statuses (1936; and see Veblen 1991 [1899]: 34 on invidious comparison). Rank is a species of status, and perhaps the most famous species; but it is not the most important species.

Indeed, rank can be characterized in terms of status insofar as the rights (or responsibilities) of one person are phrased in terms of the responsibilities (or rights) of another person in a sort of cline; insofar as rank is often grounded in rules (or laws) rather than norms; and insofar as one position in such a cline is positively or negatively valued as a function of where it is relative to other positions in the cline. Needless to say, many common statuses are ranked (rule-based, and/or prestige-associated): private, officer, general; nurse, resident, doctor; and so on. Weber's earlier definition of status (*ständische Lage*) included both senses: 'an effectible claim to social esteem in terms of positive or negative privileges; it is typically founded on a) style of life, hence b) formal education ... c) hereditary or occupational prestige' (Weber 1978: 305–306). Though Weber defined status before Linton, and Maine before Weber, neither Maine nor Weber defined it in relation to role, which was Linton's key insight.[56]

The ways in which Linton was modified via Peirce in 'The semiotic stance' should be reviewed. First, rather than phrase statuses in terms of 'rights and duties' (as grounded in rules or laws), they were phrased in terms of entitlements and commitments (as grounded in norms). Second, while Linton spoke of 'rights and duties,' without specifying their content, they were phrased in terms of modes of signifying and interpreting: giving (off) signs to be interpreted and interpreting signs given (off). Third, while statuses are often a 'collection,' they may sometimes be characterized as an inferentially articulated set insofar as they have propositional content conferred upon them by representational interpretants (e.g., words like 'mother' and 'president,' or 'speaker' and 'addressee'). And fourth, even when not inferentially articulated, statuses are not just 'any old collection.' Rather, because roles are congruous with other roles, and statuses relate reciprocally to other statuses, this collection is relatively coherent; and insofar as roles (and statuses) are usually defined in relation to an institution (in the sense of a school, team, business, etc.), this collection is relatively unified. Any actual status is somewhat coherent, unified and inferentially articulated, and somewhat incoherent, ad hoc and grab bag-like. A status, then, is a set of commitments and entitlements to signify and interpret in particular ways.

If a status is an object, what is the sign of this object? If, for Linton, a role is a way of putting a status into effect, then a role is any one of the sign-events (modes of signifying and interpreting) that one is committed or entitled to, as stipulated by one's status. Phrased in terms of the idiom introduced here, a role is *any mode of signifying or interpreting — and hence any mode of comportment more generally — that is an enactment of one's status*. Thus, a role (in the narrow sense) is a much more heterogeneous sign than, say, a natural feature (in the case of an affordance), an

artificed entity (in the case of an instrument), or a controlled behavior (in the case of an action).[57] Indeed, most roles involve other constituents of the residential whole insofar as they consist of any mode of signifying or interpreting a constituent. Insofar as most signification and interpretation is just residence in the world, a role can be any mode of comportment: heeding an affordance can be a sign of one's status; wielding an instrument can be a sign of one's status; undertaking an action can be a sign of one's status; performing one role can be a sign of the status of another role; and filling an identity can be a sign of one's status; and so on.[58] The crucial point is this: through a single mode of comportment (say, wielding an instrument, or undertaking an action) one has evidence of another's status, which then allows one to infer their potential comportment under a wide range of circumstances. *I can infer you are a plumber from what you just did; and thereby come to expect further actions that you're likely to do*.

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, any kinship relation involves two reciprocally defined statuses: uncle/nephew, mother-in-law/son-in-law, godparent/godchild, etc. Any segmentary relation involves two reciprocally defined statuses: the relationship between any two members of the same clan (age-set, minimal-lineage, nation, baseball team, etc.); and the relationship between any two members of different clans (age-sets, minimal-lineages, nations, baseball teams, etc.). Any position in the division of labor is a status: lawyer, plumber, doctor, spinner, gleaner, etc. Any position within a bureaucratic or military organization is a status: sergeant, general, private; CEO, vice-president, secretary of state. Any form of possession is a status: one has rights to, and responsibilities for, the possession in question. Indeed, statuses also include economic actors, such as buyer and seller, creditor and debtor, broker and proxy — what Marx, heralding Goffman, would call the 'characters,' or *dramatis personae*, of economic processes (Marx 1967 [1967]: 113). Social categories of the more colorful kind are statuses: jock, nerd, mama's boy, wet blanket, fair-weather friend, fuck-buddy, and so forth. As are social categories of the more political kind: race, class, ethnicity, gender, sexuality, nationality, species, and so forth.

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 give off (cf. Goffman 1959). It may range from techniques of the body to regional pronunciations, from wearing a particular form of clothing to having a particular style of hair, from standing on a certain

base in a sandlot to sitting in a certain place on a bus, from possessing certain physical characteristics to succumbing to certain types of illnesses, from giving orders to a certain set of people to showing deference before certain idols, from not engaging in certain forms of economic transaction to going out of one's way to prepare certain kinds of food, from expressing certain beliefs to espousing certain values, from wielding certain instruments (walking with a cane) to heeding certain affordances (scrambling up an embankment).

There are stereotypic roles, exemplary roles, and emblematic roles. *Stereotypic roles* are often called 'performances,' and understood as relatively scripted or rule-bound. They are just common beliefs about what actions and utterances different kinds of people are likely to engage in. For example, if one had to specify what a bellboy is, one would describe the stereotype: say, meeting a hotelier at their car, taking their luggage up, waiting for a tip, wearing a certain hat and uniform, being of a certain age and class (as co-occurring statuses), and so on. (Compare Goffman's definition of *parts*: 'The pre-established pattern of action which is unfolded during a performance and which may be presented or played through on other occasions' [Goffman 1959: 16].) Or they might be some key segment: waiting on a table as a waiter; taking a memo as a secretary; making a pass as a quarterback; and so on. There are also *exemplary roles*, or well-known actual performances of roles (in one's life, or in one's culture). For example, there is Bogart's portrayal of a club-owner; Stallone's portrayal of a boxer; one's father's way of treating one's mother; one's friend's way of being a waiter; and so forth. As discussed in 'The semiotic stance,' there are *emblematic roles* — such as wearing a uniform, turban, or scarlet letter — which may be defined relative to four dimensions: 1) roles which are minimally ambiguous and maximally public; 2) roles which members of a status have in common, by which members of different statuses contrast, and of which all such members are conscious; 3) roles which may only and must always be expressed by members of a particular status; 4) roles which provide necessary and sufficient evidence for inferring or ascribing the status in question. (One or more of these relatively stringent criteria may be relaxed — thereby providing a typology of *relatively* emblematic roles.)

Attitudes, as interpretants of roles, were discussed at length in 'The semiotic stance,' and phrased in a Meadian idiom. Adding the insights of this essay to that discussion, note that the interpretants of roles are manifold. Insofar as an instrument is realized by a role, the former is an interpretant of the latter. For example, a loaf of bread is an interpretant of being a baker. Insofar as a role is realized by another role, the former is an interpretant of the latter. For example, a socialized child is an

interpretant of being a parent. An action may be an energetic interpretant of another's role. For example, one may address another as 'sir' or 'doctor.' Having a change in status, qua ultimate interpretant, may provide an interpretation of another's role. For example, one's assuming the role of husband is an interpretant of the role of the priest that presided over one's wedding. Or, assuming the role of patient is an interpretant of encountering another in the role of doctor. Most roles co-contexualize each other. For example, being a husband is an interpretant of being a wife; and vice versa. Co-contextualization is fundamentally related to Linton's notions of congruence and reciprocation. Just as one cannot understand a sheath without reference to a sword, one cannot understand a priest without reference to a parishioner. And lastly, insofar as an identity incorporates a role, the former is an interpretant of the latter. For example, being a Q'eqchi'-Maya provides an interpretation of a man's role in a cave ritual. Representational interpretants of roles are also manifold. In particular, any label provides an interpretation of a role: 'mother,' 'sister,' 'doctor,' 'speaker,' 'husband,' and so on. The conceptual structure of such words may often be characterized in terms of the status of the role they refer to: what a mother or priest may or may not do, should or should not do, and so forth. In this way, words like *may* and *must* make explicit the normative entitlements and commitments that compose statuses.

It goes without saying that one is always at the *intersection* of multiple roles (in the wide and narrow sense) — father and husband, speaker and hearer, family man and public citizen. There are several reasons for stressing this somewhat obvious point. First, all comportment one sees is semiotically frameable relative to all these roles (though, to be sure, only some are critical or explanatory at any given moment). Second, some of these roles are constantly shifting (speaker and addressee), and others are relatively fixed (say, gender or marital status). And third, this multiple embodiment can lead to conflicts, resonances, cancellations, and so on. Indeed, the ambiguity of being implicated in multiple roles is a fraught and essential part of being human.

Goffman had a similar semiotic understanding of roles: 'In this report the expressive component of social life has been treated as a source of impressions given to or taken by others. Impression, in turn, has been treated as a source of information about unapparent facts and as a means by which the recipients can guide their response to the informant without having to wait for the full consequences of the informant's actions to be felt' (Goffman 1959: 248). In short, an 'impression' (read sign or role) gives off information about 'unapparent facts' (read object or status), and others may guide their 'responses' (read interpretant or attitude) via this impression so far as it provides evidence of other roles they will

engage in. In this way, most of Goffman's insights into western, public institutions may be easily reframed in the idiom provided here.

Finally, Goffman describes one key aspect of semiotic framing with characteristic grace:

> In our society, the character one performs and one's self are somewhat equated, and this self-as-character is usually seen as something housed within the body of its possessor, especially the upper parts thereof, being a nodule, somehow, in the psychobiology of personality. I suggest that this view is an implied part of what we are all trying to present, but provides, just because of this, a bad analysis of the presentation. In this report the performed self was seen as some kind of image, usually creditable, which the individual on stage and in character effectively attempts to induce others to hold in regard to him. While this image is entertained *concerning* the individual, so that a self is imputed to him, this self itself does not derive from its possessor, but from the whole scene of his action, being generated by that attribute of local events which renders them interpretable by witnesses. A correctly staged and performed scene leads the audience to impute a self to a performed character, but this imputation — the self — is a *product* of a scene that comes off, and is not a *cause* of it. The self, then, as a performed character, is not an organic thing that has a specific location, whose fundamental fate is to be born, to mature, and to die; it is a dramatic effect arising diffusely from a scene that is presented, and the characteristic issue, the crucial concern, is whether it will be credited or discredited. (Goffman 1959: 252–253)

While the arguments put forth in later essays will be very critical of this performer-character theory of the self, phrased in the idiom introduced here, Goffman is saying that while the self is the immediate object of the performance (qua sign), it is taken to be the dynamic object of the performance. That is, what comes about as the effect of a performance (the imputation of a self), is taken to be the cause of the performance (the possessing of a self). As discussed in 'The semiotic stance,' this process, when suitably generalized, is one of the key dimensions of fetishization.

7. Identities

An *identity* is a semiotic process whose object is a value, whose sign is an enactment of that value, and whose interpretants are usually an instrument that is realized by it, another identity that incorporates it, another's identity that contextualizes it, or an utterance that represents it. As mentioned in the introduction of this essay, given that identity maximally interacts with representational interpretants (and hence with the representational whole more generally), and given that many common

understandings of identity conflate it with agency and selfhood, identity will not be fully resolved until these topics are treated at length in subsequent essays. In particular, while this section will phrase identity in terms of the other constituents of the residential whole, the nature of value will not be taken up fully until the essay on selfhood. Finally, it should be emphasized that the value at issue here is not economic value, as was discussed in 'The semiotic stance.' Loosely speaking, if the latter is the pecuniary value something has, the former is the existential value someone holds. While these relate to each other in complicated ways, this relation will not be treated here.

Identity may be initially understood as *being-in-common*. When semiotic communities were discussed in 'The semiotic stance,' three kinds of being-in-common were theorized: first, constituents can be held in common (and hence an entity can be *in itself*); second, constituents can be held in common, and in contrast to another entity that holds constituents in common (and hence an entity can be *in itself* and *beside another*); and third, constituents can be held in common, in contrast to another entity that holds constituents in common, and with a reflexive sense of this contrastive commonality (and hence an entity can be *in itself*, *beside another*, and *for itself*).[59] In short, there can be substantive, contrastive, and reflexive senses of identity — loosely corresponding with Peirce's categories of firstness, secondness, and thirdness.

Crossing this typology with three loci, nine different senses of identity can be articulated: an individual, group, or species may be understood as the locus relative to which there is a substantive, contrastive, or reflexive sense of identity. In terms of locus, most scholars focus on individual identity and/or group identity, but many also focus on species identity by way of various forms of humanism (e.g., Marx on species being, discourses regarding universal human rights, and so on); by way of animal rights (e.g., Peter Singer's work); and even outside of *zoe* per se (cyborgs, robots, the universe, etc.). Notwithstanding these tendencies, many would argue that only certain species have the reflexive sense of identity (regardless of the locus of identity). Indeed, some scholars will grant identity to a group purely in terms of reflexivity (one calls oneself X), even when there is no substantive or contrastive reason to justify such a claim: its reflexive identity *is* its substantive or contrastive identity.

For present purposes, the interesting questions turn on individual and group identity in the reflexive sense (thereby incorporating the substantive and contrastive sense).[60] The group or community at issue can be religious (Christian, Jewish, Muslim), political (democrat, republican, green), national (German, American, Japanese), regional (east coast, Midwestern, Hoosier), philosophical (empiricist, rationalist, realist,

nominalist), social in the lay sense (class, gender, sexuality, race, ethnicity), it may have to do with the division of labor (lawyer, plumber), the distribution of kin (mother, grandson), or the distribution of kith (sororities, clubs, gangs, and teams). Notice, then, that any role can be 'bumped up' into an identity if its status is treated as a value. In everyday speech, this is often phrased as *identifying with a role* — as in, 'he really identifies with being a father' (that is, he takes being a father as relatively more important that the other roles he inhabits, thereby usually inhabiting it across a wider range of contexts.)

The term identity, like the term role, has two basic senses: as a semiotic process, it is the relation between a sign, an object, and an interpretant (as per the title of this section); and as the sign-component of a semiotic process, it is an enactment of the object-component — that is, identity is to value what role is to status. For this reason, identity (in the narrow sense, as the sign-component of a semiotic process) can be any behavior that enacts one's value(s): wearing a turban, being circumcised, reading a particular book, believing the world will end, waving a certain flag, shouting certain slogans when drunk, knowing a certain handshake or song, speaking a particular language, making a pilgrimage, avoiding certain foods, expressing certain emotions, saying 'I am an …' or 'though shall not …' In short, under the right semiotic frame, *any* practice studied by an anthropologist is an enactment of one's values, and hence the sign-component of one's identity, and hence a sign that stands for a value or set of values. In this way, any constituent of the residential or representational whole (belief or action, instrument or wish, affordance or memory) can be the sign-component of one's identity. For this reason, aside from certain relatively emblematic signs of identity, as defined in the last section for the case of roles (e.g., dietary restrictions, holy books, icons, jewelry, clothing, hats, etc.), the sign-component of an identity does not help define what is meant by identity (the way it does in cases such as instruments and affordances — qua artificed entity or natural feature). It is far too hetereogeneous. Rather, the interesting question — to be taken up below — is what is meant by value.

The interpretants of an identity are manifold. For example, there may be an instrument or role that is realized by it (e.g., an autobiography or a philosophical treatise, a toilet-trained housepet or an Oxford-bound child). There may be another identity that incorporates it (e.g., being Mexican incorporate being Nahuatl, being a professor may incorporate being a graduate student, being a general may incorporate being a lieutenant). There may be another's identity that contextualizes it (e.g., Gentile and Jew, colonizer and colonized, gay and straight, Catholic and Episcopalian, Armenian and Turk, Democrat and Republican). (Indeed,

just as roles have attitudes which interpret them which are just other roles, identities have attitudes which interpret them which are just other identities.) There may be an affordance, instrument or role that contextualizes it (e.g., mountaineer in relation to mountain, crampon, and belayer). Or there may be an utterance that represents it (e.g., *I am a citizen of the world*, *my people come from the mountains*, *we the Tikopia*). The conceptual structure of such words is often explicitly characterized in terms of the values someone of such an identity would hold, or by way of emblematic signs of such an identity: what a Christian may or may not do; what a Marine should and should not do. In this way, words like *may* and *must* make explicit the obligations and prohibitions, allowances and permissions of one's values — as embodied in the canons, laws, and commandments of an identity: the golden rule, the ten commandments, the bill of rights, and so forth. And such reflexive labels are one of the key stances we take towards others (and ourselves): He is a Russian Jew, German Banker, Sensualist Catholic, East Coast Socialite, Taxpaying American, Born Again Christian, Rebellious Mormon, Cosmopolitan Frenchman, and so forth.[61]

Insofar as identities maximally interact with representational interpretants of them, it is useful to develop several metaphors which may be used to characterize them, and which turn on other constituents of the residential whole. These are 'shortcuts' to identity — ways of sneaking up on identity by means of figures of speech, which are themselves grounded in more easily understood constituents. They are not actual theories of identity, but rather relatively enticing folk-theories of identity — ones that should be made explicit such that they don't unconsciously guide theorizing later. (Such a warning is not meant to discount such metaphors; indeed, in the realm of social constructions, one often *is* one's folk-theory.)

For example, if likened to affordances, identities are not so much artificed or designed as natural or found — hence one would not be surprised if many different cultures came up with similar moral strategies. Indeed, rather than sanctioned by cultural norms, they would be sanctioned by natural causes — their usage turning on their relative feasibility and efficaciousness, rather than on their relative appropriateness and effectiveness. Any attempt to ground value in need, or identity in nature, would be in keeping with this metaphor. In this way, an identity might be thought of as providing purchase in a moral space — a kind of existential fulcrum to weigh ethical decisions, or a kind of existential friction to get a grip on moral issues.

If likened to instruments, identities would be artificial — the realized interpretants of human action — by way of being invented, perfected,

standardized, inculcated, and so forth. They would have been designed with a function in mind — to solve some problem, fix some breakdown, achieve some end. In particular, they would be likened to a moral compass — with the emphasis on the artifice that goes into such a complicated instrument — both engineering know how and scientific knowledge. In this way, they would be the most precious of our instruments — something everyone should have and know how to use; something that can be bequeathed to children and inherited from parents; and something that can sometimes be lost, broken, or misused. Many of the 'great books' are moral instruments in this sense: the Bible, the Tanach, the Koran, Dianetics, the Book of Morman, The Tao of Pooh, The Bill of Rights, and so forth.

The relation between identity and value may be understood in terms of the relation between action and purpose. That is, just as an action is the expression of a purpose (and a role is the expression of a status), an identity is the expression of a value. Again, a number of possible metaphors present themselves. First, a value might be understood as a long-term purpose: not planning a path through the park, but charting a course through life. For example, rather than a journey from home to the store, it is a journey from birth to death. Second, a value might be understood as a second-order purpose: a standard that allows one to choose between paths (e.g., do I take the fast route or the scenic route). Thus, it guides our (second-order) action of choosing among different (first-order) actions (Frankfurt 1971; Taylor 1985). Third, a value might be understood as a final purpose: if any purposeful action may be undertaken as a means to undertake any other purposeful action as an end, and so on indefinitely, a value is the terminal point of such a means-ends chain of purposes. This is closest to Aristotle's understanding of Eudemonia. And fourth, somewhat incorporating all these other metaphors, rather than a path through physical space (from home, through the park, to the restaurant), a value underlies a path through social and intentional status space (the statuses we start out from, subsequently inhabit, and end up in). Thus, a value might be understood as a meta-purpose.

Finally, if the relation between identity and value is understood in terms of the relation between role and status, a number of possible metaphors present themselves. First, an identity is just a relatively complex and composite set of roles; and a value is just a relatively complex and composite set of statuses. In this way, a role is to an identity, and a status is to a value, what a part is to a whole. Second, an identity is just a role that one 'identifies' with — taking it as more important than one's other roles (i.e., its commitments and entitlements trump their commitments and entitlements in cases of conflict), and/or as more overarching and

contextually-independent (i.e., one inhabits it in more places and for longer periods than other roles). For example, one may be a banker only during the day, or an addressee only during a particular swatch of discourse, but a Christian 24-7 or an Armenian all one's life. Third, an identity is just a role whose status, now understood as a value, is discursively articulated (like a rule) and/or politically relevant (like a law). Examples of such values would include the Ten Commandments, the Hippocratic Oath, the Golden Rule, the Bill of Rights, and the Categorical Imperative. And fourth, somewhat incorporating all these other metaphors, an identity is a meta-role and a value is a meta-status. That is, if a status is a set of commitments and entitlements to signify and interpret in particular ways, then a value is a set of commitments and entitlements to inhabit particular statuses; and, if a role is just an enactment of a status, an identity is just an enactment of a value — qua meta-status. Thus, if roles are organized in terms of actions (and instruments and affordances), identities are organized in terms of roles (and actions, instruments, and affordances). Finally, it must be emphasized that these are each metaphors, no one of them is 'correct' — they are just useful ways of understanding a relatively abstract process (identity-value) in terms of a number of relatively concrete processes (role-status, action-purpose, etc.).

8. Conclusion: From acting under a description to comporting within an interpretation

If, as discussed in the introduction, action gives way to comportment, what happens to Anscombe's famous account of intention as acting under a description? In particular, for Anscombe (1957) and other analytic philosophers following her such as Davidson (1980) and Hacking (1995), intentions require that the actor (and others) be able to provide a description of an action (e.g., 'she was walking to work'). (This was generalized in section 5 as commitment to a representational interpretant.) While any behavior can be described in any number of ways (e.g., 'she was trying to impress her boss,' 'she was trying to save gas,' 'she was taking her exercise,' and so on), if it is intentional under some description (the actor would commit to that description, and/or give that description if someone asked her why she did what she did), it is an action under all those descriptions.

Such an account is groundbreaking insofar as it moves intentions from a private psychological realm to a public discursive one. It also offers, in

Hacking's subsequent analysis (1995, 2002), an account of how old behaviors come to be viewed through new descriptions, giving rise to new intentions and actions. This attribution or creation of new intentions for old behaviors is important insofar as it brings into being new opportunities for praise or blame (given that intentional actions so often correlate with the assignment of responsibility), and insofar as it brings into being new modes of personhood (given that modes of personhood — i.e., various roles — so often correlate with particular types of actions). Finally, it provides an account of how we may internalize others' descriptions of us, come to act under new descriptions, and thereby come to have new intentions for acting.

Nevertheless, as may be seen from the foregoing analysis, Anscombe's theory fails to account for meaningful behavior along a number of different dimensions. First, it focuses on representational interpretants ('descriptions'), whereas there are many others kinds of interpretants we may be 'acting under' or rather committing to: realizing, incorporating, contextualizing; affective, energetic, representational, ultimate. Second, it takes actions (and intentions or purposes) to be the primary locus of subjectivity, whereas there are many other constituents that are just as crucial: affordances (and purchases), instruments (and functions), roles (and statuses), and identities (and values).[62] Third, it does not distinguish others' attitudes (qua regimenting interpretants) towards the actor's intentions (or rather purposes), and the actor's own attitudes. Hence, it cannot make sense of degrees of irrationality, weakness of the will (*akrasia*), and so on. Fourth, it offers no account of degrees of commitment to an interpretant: how well one can internalize another's interpretant of one's sign; or the degree to which one can anticipate another's interpretant, where this anticipation is evinced in being surprised by, and/or disposed to sanction, non-anticipated interpretants. Fifth, it takes actions to be primarily signs to be interpreted, rather than interpretants of other signs: one wants, rather, a theory that accounts for 'experience' (or interpretation) in the same idiom it accounts for 'behavior' (or signification).[63] And sixth, as seen by the use of the preposition *under* in 'acting under a description' it takes interpretation to be a secondary projection or auxiliary lamination onto a behavior. While this is okay in the case of representational interpretants, the most requisite interpretants are in the residential whole. Thus, one resides *within* an interpretation. Indeed, one *is* an interpretation. In short, what is taken to be a monodimensional account of behavior (acting under a description), is actually just a flattening out of a multidimensional space — what would best be characterized as *comporting within an interpretation*.

Notes

* Many thanks to Nick Enfield.

1. As may be seen from this terminology, this essay is inspired by Heidegger's account of *Worldliness* in *Being and Time* (1996 [1953]: part one, division one, chapter 3), and his account of *Dasein* more generally — see *The Basic Problems of Phenomenology* (1988 [1975]: part one, chapter three, §15). And this understanding of Heidegger is inspired by Brandom (1979), Dreyfus (1991) and Haugeland (1982, 1998a, 1998b). In particular, the residential whole is inspired by *Verweisungszusammenhang* and *Bewantnisganzheit* (sometimes translated as the 'referential whole' and 'involvement whole,' respectively); comportment is inspired by *Verhaltung* (sometimes translated as 'behavior'); and the constituents of the residential whole are inspired by *Verweisungen* (often translated as 'references'). While Heidegger is a key figure of this essay, along with the Peirce-inspired approach to meaning developed in 'The semiotic stance,' there are a number of other theorists taken up in this essay: Anscombe, Gibson, Goffman, Linton, Marx, Mead, and Weber.
2. With regards to the residential whole, a few preliminary definitions are in order. First, the affordances, instruments, actions, roles, and identities — whose signification and interpretation constitute residence in the world — will be called *constituents* of the residential whole. As will be seen, every constituent of the residential whole is just a semiotic process (or mode of semiosis consisting of three components: sign, object, interpretant) whose meaning is embodied and embedded in other constituents of the residential whole. This term is introduced so that there is a single word to refer to the five key semiotic processes of the residential whole; and to make the point that these five semiotic processes are species of a common genus. Second, the term *comportment* will be used to refer to any instance of meaningful behavior and experience insofar as it can be resolved into signifying and interpreting *one's own, others,' and other* affordances, instruments, actions, roles, and identities. (For example, while writing on the chalkboard, one heeds the affordances of chalk [by way of gripping it], one wields the instruments of the classroom [the chalk and the chalkboard], one undertakes an action [writing on the chalkboard], one performs a role [that of a teacher lecturing to students], and one fills an identity [say, being the best algebra teacher in the high school].) This word is introduced so that there is a single, genus-level term to refer to meaningful behavior and experience; to stress that comportment is as much about signification (or 'meaningful behavior') as it is about interpretation (or 'meaningful experience'); and to get away from words like 'action' and 'behavior' per se, so far as the former usually presupposes 'intention,' so far as the latter often excludes meaning, and so far as neither term as previously theorized is adequate to capture the non-propositional meaningfulness that constitutes residence in the world.
3. In some sense, these five constituents, and these six modes of interpretation, are the key 'ingredients' of the residential whole.
4. Just as ultimate interpretants are those interpretants which are *not* also signs, constituents have objects which are *not* also signs — that is, a purchase or a purpose is not itself a sign (the way the referent of 'dog' or 'hammer' might be).
5. Various functionalisms attempt to ground such objects in natural causes: for example, gender may be phrased in terms of sex; purposes may be phrased in terms of needs; values might be phrased in terms of inclusive fitness; and so forth.
6. Relatedly, the constituents are the referents of lexical categories, and hence constitute open classes. For example, any language can have an infinity of the words just mentioned, and they can easily come into a language or be lost to a language.

7. More specifically, each is implicated in a large number of practices, being either the interpretant of some sign, or a sign to be interpreted. This implication in many practices gives them a kind of objectivity insofar as changing one of these practices would require changing all the other practices. In short, so far as their signs and interpretants are sorts, objects have a kind of facticity.
8. Just so that there is no confusion: while the constituents of the residential whole are non-propositional, what makes them 'experience near' is that these constituents are the referents of constituents of the representational whole — and hence have propositional content conferred upon them.
9. Indeed, the standard questions asked of any event may be phrased in terms of these: *who* (role), *what* (action), *why* (identity), *how* (instrument and affordance). For example, 'as a child my mother would threaten me with a wooden spoon in order that I would grow up to become an honest man.' Indeed, one might add *when* and *where* to this list by noting that meaningful space and time is best understood as modes of comportment spatially and temporally positioned relative to other modes of comportment.
10. (Subtracting the fact that they are all semiotic processes, of course.) In short, if they were taxonomic kinds, they would be like dogs and cats, rather than mammals and fish, or poodles and huskies. In this way, they are cognitively and linguistically more salient than other categories, providing maximum informative for minimum effort.
11. In this light, actions are as much means as they are ends.
12. Perhaps, one might add that it is because there seem to be more types of affordances than types of instruments than types of actions than types of roles than types of identities; and it is because affordances are most interpreted, whereas identities are most signified.
13. It should be noted that affordances and instruments are different from actions, roles and identities insofar as their signs are fixed (before we interpret them), and insofar as their bearers can never internalize others' attitudes towards their purchases or functions.
14. This provides another understanding of semiotic compensation and the strain it may potentially introduce: finding too much coherence; and not finding enough coherence.
15. It is not that one does not have such representations of the world; it is that these provide only a small part of the information one needs to reside in the world; the world itself provides the rest.
16. Gibson gave a famous example of a terrestrial surface which affords support: 'If a terrestrial surface is nearly horizontal (instead of slanted), nearly flat (instead of convex or concave), and sufficiently extended (relative to the size of the animal) and if its substance is rigid (relative to the weight of the animal), then the surface affords support' (1986 [1979]: 127). He went on to clarify that the salient features of a surface are not inherent to the surface (as physical properties) nor to individual to whom they afford support (as personal, cultural, or biological ones): 'Note that the four properties listed — horizontal, flat, extended, and rigid — would be physical properties of a surface if they were measured with the scales and standard units used in physics. As an affordance of support for a species of animal, however, they have to be measured relative to the animal. They are unique for that animal. They are not just abstract physical properties' (1986 [1979]: 127).
17. This term is adapted from Gibson, for whom *coperception* meant that information available to perceivers reveals as much about them as the environment itself: 'Egoreception accompanies exteroception, like the other side of a coin … One perceives the environment and coperceives oneself' (1986 [1979]: 126). Thus, as one moves through the environment one's changing perception of the environment provides feedback

about one's own movement relative to the environment. Gibson notes that coperception is 'wholly inconsistent with dualism in any form, either mind-matter dualism or mind-body dualism. The awareness of the world and of one's complementary relations to the world are not separable' (1986 [1979]: 141).

18. Moreover, one understands the self's place relative to the signs it comes across: as they change, it registers, and hence orients to, its own change. This is not the same as feedback (we see how other interprets us and come to interpret ourselves in the same way). (This probably happens on a time-scale that can be much longer than for perception. And it is much more complicated because the things we're looking at look back.).
19. As is well known, in contrast to Kant's dictum that percepts without concepts are blind, Gibson thought that to perceive surfaces (and their layouts) was to perceive what they afford. In particular, after describing environment as 'the surfaces that separate substances from the medium in which the animals live' (1986 [1979]), Gibson turns to how we relate surfaces to affordances, asking whether there is information there as to what they afford. He answers that 'to perceive [surfaces] is to perceive what they afford.' And he notes that this 'implies that the ''values'' and ''meanings'' of things in the environment can be directly perceived' and it explains 'the sense in which values and meanings are external to the perceiver' (1986 [1979]). Haugeland has offered a nice summary of the crux issue in Gibson: 'What's important (and controversial) here is not the idea of affordances as such, but the claim that they can be *perceived* as opposed to inferred. The central question for the theory of affordances is not whether they exist and are real but whether information is available in ambient light for perceiving them' (1998b: 140). 'Intuitively, the startling thesis is this: it can be *a feature of the ambient light itself* that, for instance, something over there ''looks edible'' or ''looks dangerous'' (from here, to a creature like me). This would have to be a very complicated feature indeed, practically impossible to specify (in physical terms)' (1998b: 141).
20. While animals have residential wholes, they do not have representational wholes; and hence they reside without representation. This doesn't mean they are not semiotic, or that their experience and behavior is not meaningful. It only means that their comportment is never internalized, never regimented by the normative order, never symbolic, and never inferentially articulated.
21. These ideas can probably be extended to understand the embeddedness of the constituents of the representational whole.
22. Crucially, the relation between sign A to sign B must have been the product of a human action. Another example of fetishization is taking two semiotic processes to relate via incorporation when they don't — usually by assuming they relate to each other via some kind of human intervention rather than by pure happenstance. Marx (1967 [1867]: 194) has a different, but comparable use of incorporation.
23. Notice that while objectification requires the institutionalization of a new sign's object via others' attitudes towards it, it does not require material embodiment per se. For example, one can realize an ultimate interpretant.
24. It may also be said that a lawn-mower contextualizes grass so far as we don't understand this particular affordance of grass until we learn of the lawn-mower: it provides an interpretant of the purchase of the grass.
25. The economic metaphors — 'affordance' and 'purchase' — are unintended and hopefully inconsequential.
26. Many of the insights from Gibson's 'Ecological Psychology' were developed in the introduction (complementarity, cointerpretation, nesting, invariance), but phrased in a semiotic and social idiom, generalized for all five constituents of the residential whole,

and framed in terms of interpretation and signification instead of perception (and action).

27. While the signs of affordances only tend to be features rather than 'objects,' it is essential that they are natural.
28. Insofar as a purchase (or object) helps constrain the natural features (or sign), and insofar as a purchase involves human concerns, one might note that that natural features are determined (in their scope and salience) by cultural factors. However, this is not the same as saying the features are artificed.
29. In our modern environment, there are fewer and fewer affordances, and more and more instruments: from genetically engineered tomatoes to nature reserves. In certain cases, the function of such instruments is to mimic affordances (e.g., snow machines). In other cases, we find affordances in instruments (e.g., propping open a door with a book).
30. Thus one may speak of something 'affording purchase' (or not), as a function of one's current purpose. However, it is theoretically wrong (though idiomatically correct) to speak of something affording no purchase.
31. Building on this applied geometry, Gibson characterized 'those animals, layouts, objects, and events that are of special concern to animals that behave more or less as we do' (1986 [1979]: 36). And he contrasted open environments, which allow locomotion in any direction, with cluttered environments that only allow locomotion at openings. He then characterized paths, obstacles, barriers, water margins, and brinks. He notes shelters (found or built), huts (affording protection from weather and predators), fire (affording warmth, illumination, cooking, injury). He gives a more careful definition of objects: 'persisting substance with a closed or nearly closed surface that can be either detached or attached' (1986 [1979]: 39). And he defines tools as detached objects of a particular sort: 'They are graspable, portable, manipulatable, and usually rigid' (1986 [1979]: 40). And finally he offered a list of other affordances: the terrain, shelters, water, fire, objects, tools, other animals, and human displays. As may be seen by this list, Gibson took affordances to include what are here called instruments (tools), roles (other animals understood in terms of their behavioral patterns), and intentional statuses (human displays as the signs of emotions and purposes). He thereby conflated under one superordinate type (affordances) what this essay breaks up into subtypes (affordances, instruments, actions, roles, and identities). As may also be seen, he conflated under one term (affordances) what is here broken up into four terms: affordances as semiotic processes whose components are natural features (as signs), purchases (as objects), and modes of heeding them (as their canonical interpretants).
32. A natural feature might come to have an object other than a purchase. For example, it might come to index the status of the individual who lives near it. Indeed, given that the heeding of an affordance can (metonymically) index the wielding of an instrument, the undertaking of an action, the performing of a role, or the filling of an identity, a natural feature might come to stand for instruments (or functions), actions (or purposes), roles (or statuses), identities (or values).
33. And strain can arise when a community attempts to define normative appropriateness and effectiveness without reference to causal feasibility and efficaciousness.
34. One does not feel as if one's breathing provides an interpretation of the purchase afforded by oxygen until one holds one's breathe while swimming.
35. This does not mean that they are not affected by cultural norms; it only means that they are not regimented by them.
36. While the signs of instruments may be features rather than 'objects,' they must be artificed rather than natural. That is, the distinguishing criterion between affordances and

instruments is whether they are artificial versus natural, not whether they are features versus entities.

37. That there are so many different types of instruments underscores the fact that the definition of an instrument offered here is an ideal type. As mentioned in the last section, some nonhuman animals and insects create instrument-like things: nests, dams, hives, webs, and so on. And all human groups create affordance-like things: genetically engineered tomatoes, landscaping, domestic animals, nature reserves, and so forth.
38. In the theory offered here, so called 'biological functions' are all really purchases; and hence organs (originally meaning 'instruments') are really affordances, whose key interpretants are incorporating (via other organs) and realizing (via biochemical products). Typically, one has to specify the whole relative to which they are being assessed to assign any particular purchase (for all are massively 'multi-purchasive' with this definition). They are, needless to say, causally regimented by way of an organism's continued existence (or its genes') within a particular environment. And they themselves may be understood as phylogenetic interpretants of a particular environment — which includes both other organs within a biological body, and the larger environment in which the biological body, or organism, is found.
39. Less abstractly speaking, the function of a (well-designed) instrument is what it will effectively do if appropriately used.
40. Weber is also worth quoting on artifacts: 'To be devoid of meaning is not identical with being lifeless or nonhuman; every artifact, such as for example a machine, can be understood only in terms of the meaning which its production and use have had or were intended to have; a meaning which may derive from a relation to exceedingly various purposes. Without reference to this meaning such an object remains wholly unintelligible. That which is intelligible or understandable about it is thus *its relation to human action* in the role either of means or of end; a relation of which the actor or actors can be said to have been aware of and to which their action has been oriented. Only in terms of such categories it is possible to "understand" objects of this kind. On the other hand, processes or conditions, whether they are animate or inanimate, human or nonhuman, are in the present sense devoid of meaning in so far as they cannot be related to an intended purpose' (Weber 1978: 7, italics added).
41. In the short run, of course. In the long run, one may use a semiotic instrument, such as an imperative, to change another's intentional or social status in such a way as to get them to use a non-semiotic instrument to change a physical state.
42. Often writers use function and purpose interchangeably. In anthropology, for example, in one phase of his career Sahlins offered a 'functional theory of redistribution' (1972: 190), phrased in the following way: 'redistribution ... serves two purposes, either of which may be dominant in any given instance. The practical, logistic function — redistribution — sustains the community ... in a material sense. At the same time, or alternatively, it has an instrumental function: as a ritual of communion and of subordination to central authority, redistribution sustains the corporate structure itself' (1972: 190).
43. The wielding of an instrument, or the heeding of an affordance, as energetic interpretants, might also be understood as actions (wielding or heeding) that incorporate instruments and affordances.
44. Mead thought that, 'The meaning of a chair is sitting down in it, the meaning of the hammer is to drive a nail' (1934: 104). Note that, for Mead, the *meaning* of a sign is its interpretant (not its object), and hence the meaning of an instrument is just a mode of wielding it.

45. Notice that there are relatively few non-derivative words for functions per se. Compare affordances, for which there are relatively many words for purchases: *sharp*, *heavy*, *opaque*, *smooth*, and so forth.
46. Though, as a semiotic process, an action is composed — it's just that the controller (the one who behaves) is not necessarily the composer.
47. In this way, the difference between an action and an instrument is one of degree and not of kind: the degree to which it is a human-controlled behavior rather than a human-artificed entity; the degree to which the object of the sign is interpretable as a purpose rather than as a function; the degree to which the function/purpose is personal (relevant to one particular person) or interpersonal (relevant to any signer with a purpose); the degree of stability and persistence of the sign (instruments outlive their use; actions exist in use); and the degree to which the action may be represented by a verb whose subject undertakes the action in question (rather than as a noun as that which is wielded while acting).
48. These are based on the well-known *Aktionsart* classes, a kind of cross-linguistic typology of verbal predicates (cf. Van Valen and LaPolla 1997). Importantly, this enumeration of controlled behaviors is really an enumeration of representational interpretants of controlled behaviors (e.g., words used to describe controlled behaviors), and hence has already found a purpose in them.
49. Metaphors of the life-path, or quest, are built from this.
50. Most actions (as incorporating interpretants of other actions, or of instruments wielded and affordances heeded) are also energetic interpretants.
51. It should be stressed that controlled behaviors can only be characterized as controlled behaviors when they are articulated in terms of their objects (purposes) and interpretants (incorporating actions, realized instruments, etc.). Thus, it is only in relation to this three-fold articulation that controlled behaviors can be segmented, transcribed, and analyzed.
52. In particular, as will be taken up in 'Representations of the world,' an intention should be understood as the conclusion of an inference that has two parts (Brandom 1994; Davidson 1980): a 'belief' and a pro-attitude, where the latter can be a personal preference (particular to an individual), a status commitment (particular to a role), or a value commitment (particular to an identity). For example, the intentional action of opening an umbrella by can be rationalized by attributing to the actor: 1) a belief that it is raining; and 2) a personal preference (say, to stay dry), a role commitment (say, one must keep one's uniform clean), or an identity commitment (say, dryness is godliness). In this way, intentions intrinsically relate to 'desires,' roles, and identities (as species of pro-attitudes which might explain them); and intentions intrinsically relate to 'beliefs,' reason-giving, and rationality more generally.
53. The big question, really, is whether some minimal amount of internalization or commitment (qua movement from status to attitude) is required to account for purposes (and purchases, functions, and so on). It can be merely the internalization of an incorporating interpretant — as revealed in frustration if movement is thwarted. If statuses are only instituted via attitudes, then this would have to be the case.
54. Hegel, working in a subject-object idiom, rather than sign-object-interpretant, notes that, 'Work … is desire held in check, fleetingness staved off; in other words, work forms and shapes the thing. The negative relation [of desire] to the object becomes its [i.e., desire's] *form* and something *permanent*, because it is precisely for the worker that the object has independence' (1977 [1807]: 118). If one substitutes action for work, purpose for desire, actor for worker, and instrument for object, one sees that Hegel articulates a similar point. That is, the product of some activity objectifies the purpose of that

activity. In this idiom, one constituent (an instrument) provides an interpretation of another constituent (an action). By realizing an instrument, a purpose is given *permanent form*. Realization thereby occurs when the object (or purpose) of a sign (or controlled behavior) becomes objectified in an instrument. Hegel goes on to relate this realization to the consciousness of the worker: 'It is in this way, therefore, that consciousness, *qua* worker, comes to see in the independent being [of the object] its *own* independence' (1977 [1807]: 118). Kojève interprets this as follows: 'The man who works recognizes his own product in the World that has actually been transformed by his work: he recognizes himself in it, he sees in it his own human reality, in it he discovers and reveals to others the objective reality of his humanity, of the originally abstract and purely subjective idea he has of himself' (1980 [1947]: 27). Or, alternatively, he writes that, 'The product of work is the worker's production. It is the *realization* of his project, of his idea; hence, it is he that is realized in and by this product, and consequently he contemplates himself when he contemplates it' (1980 [1947]: 25, italics added). Arendt's notion of work (1998 [1958]), as that which forms the 'objects' through which man inhabits the world, is based in this. Finally, note that contemplation of oneself when one contemplates one's product relates to cointerpretation and cosignification.

55. Linton notes that the individual's relation to the status he holds is like a set of 'ever-present potentialities for action and control,' such that they 'may exercise these potentialities very well or very badly' (Linton 1936: 187).
56. Besides contrasting statuses in Linton's sense with statuses in the everyday sense, Linton's use of roles should be contrasted with roles in the theatrical sense. In particular, a theatrical role comes with the following sorts of assumptions. There is a script, detailing actions and utterances which the 'performer' of the role must undertake. A script might be like a status, but the outcome is known in advance; real roles are maximally contingent and emergent. This script is equivalent to a rule: one reads what it says, and does what it says, because that's what it says. (Of course, one can 'interpret' a role so far as one can flesh it out, and add nuance to it, in an actual performance.) The one interpreting the script, or rather following the rule, is a 'performer,' and the role performed is a 'character.' Crucially, the attributes of the performer have nothing to do with the attributes of the character. (Of course, they may: male performers typically play male characters, and so forth.) While in theater, performers might 'lose themselves' in their characters (so far as they 'identify with them'), in real-life we *are* our roles (in addition to being our affordances, instruments, actions, and identities). Thus, unlike the roles theorized here, theatrical roles requires two pieces, performer and character, presupposing a kind of two-stroke theory of the self which should be discredited.
57. This is why roles (and identities) have no defining sign, in contrast to affordances (natural features), instruments (artificed entities), and actions (controlled behaviors).
58. Of course, only certain roles are known by clothing. Others are known by modes of heeding affordances or undertaking actions. For example, age and health, understood as complex statuses, can be inferred by modes of crawling, walking, climbing, crutching, 'walkering,' and so on. Others are known by modes of wielding instruments. For example, occupation and gender may be inferred from modes of wielding food processors, pipe-wrenches, briefcases, aprons, and so on. Of course, certain undertakings (actions/purposes) and wieldings (functions/instruments) might be attributable to only a single role (wearing hardhats or throwing handsprings); whereas others are relevant to a variety of roles (wearing shoes and walking).
59. In this rephrasing of those ideas, 'group' has been replaced with 'entity,' such that this schema can be used to describe either group identity or individual identity; and 'semiotic process' has been replaced by 'constituent' to foreground that the semiotic pro-

cesses in question are (inalienable) constituents of the residential and representational wholes. In short, the focus is on how entities — be they groups or individuals — relate to other entities by way of what belongs to each entity (e.g., inalienable constituents), rather than by way of what is shared between identities (e.g., codes). Notice that the first two of these are closest to Saussure's two senses of identity: 1) the identity or value of a suit (e.g., selfsameness of its substance over time); 2) the identity of a city street or scheduled train (relative difference in comparison to other streets or trains). Sometimes these are understood as 'identity' and 'difference.' The third form of identity, needless to say, is usually the most important — and is often left out of Saussure-inspired theories.

60. This typology is not is theory of identity, needless to say; it is a way of typologizing various senses of the term *identity* — some of which, lamentably, have been taken to be theories of identity — i.e., as explanations, rather than what needs to be explained.
61. Some sense of the relative importance of different roles, or communities is provided in linguistic constructions: one is a Russian Jew, not a Jewish Russian; one is a German banker, not a banking German; one is an East Coast Socialite, not a socializing East Coaster; one is a Christian man, not a masculine Christian.
62. As will be discussed in 'Representations of the world,' it also does not distinguish (in the important case of acting under a description) between intentions per se (qua practical commitments), and reasons for the commitment, whereas scholars such as Davidson and Brandom have shown this to be a crucial distinction. Such a distinction is crucial because it brings in new kinds of values, or 'pro-attitudes, and their relation to new kinds of beliefs, or 'epistemic commitments,' and how those offer rationales for new kinds of intentions, or 'practical commitments.' (That is, there is no account of how personal preferences, statuses and values affect actions, and hence no account of how new kinds of preferences, statuses, and values can introduce new kinds of [licensed] intentions.)
63. Indeed, given that comportment is as much about interpretation as it is signification, and hence as much about perception (or experience) as it is about intention (or behavior), most of these criticisms hold for Sellars's account of perception (1997 [1956]): if Sellars says, in effect, perception is observation under a description, this can be altered given that comportment is as much signification as interpretation.

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