Agent, Person, Subject, Self

FOUNDATIONS OF HUMAN INTERACTION

General Editor: Nick Enfield
Max Planck Institute of Psycholinguistics

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A THEORY OF ONTOLOGY, INTERACTION, AND INFRASTRUCTURE

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2010. Value is life under a description: Instrumental values, existential commitments, and disorienting metaphors. *Anthropological Theory* 10.1: 149–162.

2011. Biosemiosis, technocognition, and sociogenesis: Selection and significance in a multiverse of sieving and serendipity. *Current Anthropology* 52.5: 711–739.

Additionally, I want to thank the staff of the journal *Semiotica*, and its editor, Marcel Danesi, who originally published a set of my articles entitled The Semiotic Stance (2005), Agent, Person, Subject, Self (2006), Residence in the World (2006), and Representations of the World (2006). While the present work borrows some of these titles, and incorporates material frompieces of each of these essays, the ideas presented here have transformed radically enough that these early works should really be understood as (slightly slippery) steppingstones.

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Semiotic Ontologies

1. Signs, Minds, and Meaning-in-the-World

As the title of this book suggests, the key topics turn on four seemingly human-specific and individual-centric capacities that are essential for understanding modern social processes, and constitute the traditional grist for critical theory. For example, agency might be understood as a causal capacity, say, flexibly wielding means toward ends. Subjectivity might be understood as a representational capacity, say, holding mental states or expressing speech acts. Selfhood might be understood as a reflexive capacity, say, being the means and ends of one's own actions or being the object of one's own private and public representations. And personhood might be understood as a sociopolitical capacity, say, rights and responsibilities attendant on being an agent, subject, or self. (Suffice it to say, these are *not* definitions we will be building toward; rather, they are merely a quick-and-dirty way to characterize several trends in a vast literature.)

But this is just one way of framing the contents of this book, and so there are five possible subtitles: (1) Reconstructing the Individual in Social Theory; (2) Taking a Semiotic Stance toward Language, Culture, and Mind; (3) Outline of a Theory of Thirdness; (4) Significance and Selection in a Multiverse of Sieving and Serendipity; and (5) A Theory of Ontology, Interaction, and Infrastructure. As the first subtitle suggests, this book provides a reconstructive rather than a deconstructive theory of the individual, one which both analytically separates and theoretically synthesizes a range of "facilities" that are often confused and conflated (e.g., agency, personhood, subjectivity, selfhood). As the second subtitle suggests, these facilities are fundamentally related to three rich theoretical and empirical traditions (exemplified by the disciplines of linguistics, anthropology, and psychology) whose concerns and claims may be articulated in a semiotic idiom that supersedes the usual intentional idiom. As the third subtitle suggests, this book provides a theory of thirdness—or a pragmatism-grounded approach to meaning and mediation that is general enough to account for processes that are as embodied and embedded as they are articulated and enminded. As the fourth subtitle suggests, while this theory is thereby focused on human-specific modes of meaning, it also offers a general

theory of meaning, such that the agents, subjects, and selves in question need not always, or even usually, map onto persons. And as the fifth and actual subtitle suggests, not only should ontology, interaction, and infrastructure be understood as the roots and fruits of each other, but, relative to agents, persons, subjects, and selves, they may also often be framed as grounds to figures, relations to relata, and processes to precipitates. Broadly speaking, then, this book offers both a naturalistic and a critical theory of signs, minds, and meaning-in-the-world.

OVERVIEW OF CHAPTERS

Chapter 2 argues for a general and naturalistic theory of meaning, one that turns on selection as much as significance, as well as sieving as much as serendipity, and one that synthesizes the key concerns of a wide range of otherwise disparate disciplines and perspectives. It uses this theory to understand the relation between biosemiosis, technocognition, and sociogenesis. And it shows how this theory is applicable to any life form (be it natural, artificial, or anything outside or in-between), on any time-scale (e.g., phylogenetic, historical, developmental, or interactional).

Chapter 3 uses this theory to characterize human-specific modes of meaning, articulating the relation between power, knowledge, and semiotic process. It shows how various "kinds" (such as mental states, social statuses, and material substances) get indexed and interpreted, constructed and naturalized, and, more generally, enclosed and disclosed in human interaction. And it argues that interaction, so framed, constitutes the roots and fruits of culture—itself a particularly important semiotic ontology.

Chapter 4 extends the concerns of chapter 3 by focusing on relatively non-propositional semiotic processes: heeding affordances, wielding instruments, undertaking actions, inhabiting roles, and fulfilling identities. It argues that such processes, while usually untheorized as the infrastructure or "context" for more stereotypic signs (such as discursive practices), are fundamentally semiotic, possess a specific organizational logic, and constitute the grounds for more canonical modes of meaning.

If chapter 4 focuses on what may be called residence in the world, chapter 5 focuses on representations of the world. It thereby extends the concerns of chapter 3 by accounting for relatively propositional semiotic processes, namely, language and mind, in their stereotypic sense, as relatively public and private forms of intentionality, respectively. It argues that the intentional stance of human kinds is grounded in a more fundamental semiotic stance.

Chapter 6 uses the foregoing framework to move from meaning to value and from cognition to affect. In part, it focuses on value in an existential sense, namely, the fundamental commitments of identity that constitute the ultimate grounds for human action. And, in part, it moves from semiotic processes to semiotic actors, focusing on the evaluating agents, persons, subjects, and selves that constitute the roots and fruits of residence in, and representations of, the world.

The rest of this chapter introduces the concept of semiotic ontologies. In part, it unfolds some of the overarching categories and commitments of this book, focusing on the relation between ontology, interaction, and infrastructure. And, in part, it reflexively frames this project in terms of its own categories and commitments, and, thus, it attends to some of its own conditions of possibility. In this way, it may be read as a conclusion as much as an introduction. And, for these reasons, it may be slightly hard going for readers new to meaning, who are encouraged to start with chapter 2, which builds a theory of meaning from the ground up.

2. Ontology, Interaction, and Infrastructure

Ontologies might initially be understood as ensembles of assumptions regarding the underlying constitution of, or salient patterns in, the world. Crucially, in articulating the nature of ontologies, one is simply evincing some of the assumptions of one's own ontology, where these assumptions are both grounded in and grounding of one's own worlds. And thus, not only do such assumptions frame one's experience in such worlds, but they are also subject to reframing through one's experience in such worlds. Any ontology, including this meta-ontology, is necessarily provisional (and probably provincial).

With this reflexive critique aside, my own interests lead me to foreground two attributes of ontologies. First, ontologies are a condition for, and a consequence of, semiotic processes. In this way, I focus on ontologies insofar as they relate to semiosis, as inaugurated by the American Pragmatist Charles Sanders Peirce (1992a [1868], 1992b [1868], 1992c [1868]), and more broadly understood as turning on both significance and selection or, as will be detailed in chapter 2, relations between relations more generally. Phrased another way, such ontologies are both an outcome of meaningful interaction and a condition for meaningful interaction, where the interactants in question may include self and other, people and things, and anything outside or in-between. In short, just as one interprets in light of an ontology, one ontologizes in light of an interpretation.

Second, the assumptions that constitute ontologies are not only the roots and fruits of representations of the world (e.g., speaking and thinking with propositional contents), but they are also the roots and fruits of residence in the world (e.g., interacting with others, and meaning-in-the-world more generally). And, hence, while the usual focus is on ontological assumptions that are articulated or enminded in propositional contents, the focus will include ontological assumptions that are embodied in interactional practices and institutions as well as ontological assumptions that are embedded in material environments and infrastructures.[1] Indeed, usually one and the same interaction will involve residence in the world and representations of the world, and, hence, will both presume and propose a variety of such assumptions, with more or less strength and explicitness, and with various degrees of logical, normative and causal coherence.[2]

In short, the crucial issue with ontologies is how they (1) are both root and fruit of semiotic processes, and thus relate to such processes as both condition and consequence; and (2) do this in a way that may be embedded and embodied as much as articulated and enminded. Or, as the American Pragmatist George Herbert Mead (1934) would see it from his first-person, human-specific perspective, ontologies may be reflexive (or "gestural") as much as reflective (or "symbolic"), oriented to the past ("Me") as much as orienting of the future ("I"). Thus, while we celebrate the pragmatists' insights in this way, our goal is to include perspectives other than the human, entities other than the individual, systems other than the linguistic, modalities other than the ideational, and scales other than the cultural and historic.

INDICES, KINDS, INDIVIDUALS, INTERPRETANTS, AND AGENTS

More concretely, such *semiotic ontologies* may turn on interpretation-licensed and interpretation-licensing assumptions about the nature and distribution of various "kinds" (a few of which may be reified for the moment as mental states, social statuses, and material substances). In particular, at any given moment, an interpreting agent's ontology may include assumptions (more or less easily articulated, if articulable at all) regarding (1) the kinds that constitute a particular individual; (2) the indices that constitute a particular kind; (3) the indices, kinds, and individuals that constitute a particular world; and (4) the range of possible worlds that could be constituted.[3]

For example, an ontology is stereotypically evinced in the following kinds of assumptions (which are here explicitly proposed by utterance contents for the sake of explication): *That guy is a policeman*; *this stuff is water*; and *her cat is sad*. *Policemen arrest people*; *water ices up at zero-degrees Celsius*; and *sadness leads to tears*. In this world, there are individuals such as *that guy*, *this stuff*, and *her cat*; as well as kinds such as *policemen*, *water*, and *sadness*; as well as indices such as *arresting*, *icing*, and *crying*. In other worlds (nations, cultures, eras, planets, imaginaries, infrastructures, institutions, interactions, etc.), there may be other sorts of individuals, other sorts of kinds, and other sorts of indices.

In this way, an index is a relatively perceivable quality (however complex, relational, instrumentally mediated, meta-semiotic, and so forth). A kind is a projected propensity to exhibit particular indices (however imaginary, erroneous, tenuous, or idiosyncratic). And an individual is whatever can exhibit indices (to an agent) and thus be a site to project kinds (by that agent). (See Table 1.1.) In particular, insofar as something is interpreted as a kind, it may be understood by the interpreting agent as more or less entangled in, or evincing of, a range of patterns, and thus more or less effected by a range of causes, or causal of a range of effects, as well as more or less amenable to, or capable of, a range of actions.

A key issue, then, is this: in sensing the indices of an individual,[4] an agent (who has such an ontology) may interpretwhat kind of individual it is (as a propensity to exhibit a range of indices),[5] and thereby come to expect other indices from that

TABLE 1.1

Some Key Constituents of Kindedness

Index	Any quality that is relatively perceivable (to an agent).
Kind	Any projected propensity to exhibit particular indices.
Agent	Any entity that can perceive such an index and project such a kind (itself often an individual).
Individual	Any entity that can evince indices (to an agent) and thereby be a site to project kindedness (by that agent).
Ontology	The assumptions an agent has as to the indices, kinds, and individuals that constitute a particular world.

individual, and patterned behaviors more generally, that would be in keeping with its kind. Reciprocally, such interpretations might only indexically or inferentially emerge as transformations in the sorts of actions that such an agent is itself more or less likely to undertake or transformations in the sorts of qualities that such an agent is more or less likely to exhibit. In particular, such interpretations can constitute transformations in one or more of the kinds that constitute the interpreting agent (itself an individual), and thus transformations in the kinds of indices (patterns, causes, actions, etc.) it is likely to exhibit. In this way, the process may continue reciprocally and indefinitely.

Note, then, that whenever an agent engages in a semiotic process—whereby a sign (such as an index) stands for an object (such as a kind) and gives rise to an interpretant (such as an expectation, inference, affect, or action)—that agent is exhibiting, and often transforming, a semiotic ontology.

For example, assuming one's ontology involves policewomen, badges, and billy clubs, in perceiving an individual's billy club, one may infer that she is a policewoman, and thereby come to expect her to have a badge (as well as make arrests, write tickets, and drive a police car), where such expectations are evinced in one's subsequent law-abiding behavior.[6] Or, assuming a child's ontology includes indices such as communicative gestures and kinds such as ostensibly shareable experiences, when a parent points, the child may turn to look at where the parent is pointing (a semiotic process known as joint-attention). Or, assuming an animal's ontology involves kinds such as predators-that-come-from-above, as indexed by wing spans, as well as kinds such as predators-that-come-from-below, as indexed by hiss sounds, upon sensing one index or the other, the animal may instigate evasive actions that make sense in terms of the relationship between its own interests and the predatory characteristics of such kinds (such as fleeing into the underbrush or climbing into the trees). Or, assuming a machine's ontology, however "derivative," includes kinds such as genuine coins and spurious coins, as indexed by qualities such as weight, diameter, and width, upon "sensing" that a coin is genuine, such a machine may "instigate" the giving of a candy bar. Or, assuming an immune system's ontology involves particular kinds of harmful or foreign substances (as well as a distinction between foreign and nonforeign substances), it produces antibodies that bind with

(and are triggered by) only particular antigens, as embodied in their complementary molecular structures.

Note from these examples that the "assumptions" that constitute ontologies may be embedded and embodied as much as enminded and articulated. Indeed, anything that is significant and selected, as these terms will be defined in chapter 2, embodies an ontology: not only organs and organisms, but also actions and instruments; and not only lexicons and worldviews, but also life choices, design preferences, and engineering standards; not only scientific theories and computer programs, but also bodies and artifacts. And note that just as different forms-of-life (à la "cultures") may exhibit different ontologies, so may different life forms (à la "species"). And just as different living kinds (à la "animals") may exhibit different ontologies, so may different artificial kinds (à la "machines"). That is, ontology-exhibiting agents include children and adults, animals and humans, artifacts and organs, individuals and institutions, interactions and infrastructure, dollar bills and genes, linguistic structures and immune systems, *inter alia*. Finally, it cannot be emphasized enough that all of these entities (cultures, species, adults, children, animals, machines, organs; individuals, indices, agents, and kinds; signs, objects, interpretants; and so forth) are themselves just kinds, evincing our own ontology (however provincial and provisional).

ONTOLOGIES ENSEMBLED, ENTANGLED, AND ENFRAMED

Note, then, that for a particular agent, a given individual (such as a specific person or thing or a particular entity or event) may exist as an ensemble of such kinds, for example, a complex bundling of social statuses, mental states, and material substances. And each kind in such an ensemble may be more or less fleeting or enduring, more or less recognized by self or others, more or less directly perceived or indirectly inferred, more or less "constructed" or "natural," and more or less coherently entangled with other kinds within the ensemble or with other such ensembled individuals within the world. Indeed, just as semiotic processes are distributed across signs (such as indices), objects (such as kinds), and interpretants (such as inferences), so is any given individual. And just as semiotic processes are distributed across actors (qua signers, interpreters, objecters) as much as actions (qua signs, interpretants, and objects), so is a given individual. In this way, each individual is temporally and spatially entangled in an ensemble of other individuals, who are as likely semiotic agents as semiotic objects, as likely signs as interpretants, as likely signers as interpreters, as likely ontologized as ontologizing.

Concomitantly, these definitions are necessarily frame-dependent: indices may often be reframed as kinds or individuals, just as kinds may often be reframed as indices or individuals, just as individuals may often be reframed as indices or kinds, and so forth. Indeed, the (higher-order) indices that constitute a kind may themselves be complicated semiotic processes (or the absence thereof), and thereby turn on the relations between (lower order) indices, kinds, and interpretations. To return

to our earlier example, a doctor may use the fact that a child of a certain age does or does not engage in joint-attention—as a temporally unfolding relation between a sign, object, and interpretant—as evidence that the child is or is not normally developing (and, hence, counts as a particular kind of child, or has a particular kind of disability or genetic structure, and, thus, should or should not be subject to a particular kind of legal regimentation). As will be discussed below, and detailed in later chapters, processes of semiotic framing are as important to analyze as the semiotic products so framed.

Or, building up instead of down, and looking somewhat ahead, identity may sometimes be understood as a sort of meta-kind. For example, a person might be imagined as a more or less uniquely identifiable ensemble of mental states, social statuses, and material substances, where such states, statuses, and substances ensure that the person in question has a particular ontology. To return to section 1, for example, such an ontology might involve recognizing the existence of persons, including itself, as particularly important kinds, say, beings capable of producing complex indices that are reflexive, flexible, and representational (such as language) or beings that are accountable for their words and deeds to god, the law, themselves, and other such persons.

Finally, putting all this together, and as intimated above, in this ontology the interpreting agents may themselves be just relatively individualized and complicated ensembles of various kinds (such as social statuses, mental states, and material substances), and hence meta-kinds (qua identities), where their signifying, objectifying, and interpreting practices are the key indices of their underlying kinds to other interpreting agents (including themselves). In short, such ontologies are not only embodied and embedded, and as much as articulated and enminded, but they are also recursive, reflexive, and reframable.

TRANSFORMING WORLDS

Just as ontologies are a condition for interpretation, they are also a consequence of interpretation. In particular, when we interact with others, or observe or learn about others' interactions, our ontologies may be transformed in the following kinds of ways: (1) our assumptions regarding the kinds that constitute a particular individual may be strengthened or weakened (confirmed or rejected, called into question, and so forth), (2) as may our assumptions regarding the indices that constitute a particular kind, (3) as may our assumptions regarding the individuals, kinds, and indices that constitute a particular world, (4) as may our assumptions regarding the possibilities of other worlds that could be constituted. Finally, for many sorts of kinds (and not just the human), such processes are necessarily performative: Changes in our assumptions about the world may change the world about which we make assumptions. (See Table 1.2.)

That said, different sorts of assumptions may be more or less entrenched (usually depending on the degree to which they indexically or inferentially presume

TABLE 1.2

Some Key Modes of Ontological Transformativity

1) Indices may change an individual's kind irrespective of an agent's ontological assumptions.
2) Indices may change an agent's ontological assumptions regarding the kinds that constitute a particular individual.
3) Indices may change an agent's ontological assumptions regarding the indices that constitute a particular kind.
4) Indices may change an agent's ontological assumptions regarding the indices, individuals, or kinds that constitute a particular world.
5) Changes in an agent's ontological assumptions about a world (in any of the foregoing ways) may change the world about which the agent makes assumptions.

other assumptions or, more generally, require them for their coherence) and thus more or less likely to be transformed by experience.[7] And such transformations may occur on various time scales: interactional, biographical, historical, phylogenetic, and cosmological, *inter alia*. For example, while assumptions of the first sort often change on interactional time scales (an agent comes to assume some individual inhabits a particular status or is composed of a particular substance), assumptions of the fourth sort often change on historical time scales (a community of agents comes to assume that the world involves statuses and substances of a particular sort). But other changes on other time scales are also possible. For example, at some point in biographic time, one may realize that individuals of a particular kind do not exhibit the indices one initially expected (assumption of the second sort) or one may learn about other worlds, with other sorts of kinds, one could not have previously imagined (assumption of the fourth sort).

Crucially, while such transformations may often seem to be grounded in individual-centric and intentionality-specific processes (as evinced in, say, transformations in the beliefs of particular human agents at particular moments), it is best to understand them as interactionally and infrastructurally distributed phenomena, often grounded in enormous ensembles of minimally aligned, unevenly scaled, and unhappily entangled agencies.

EMBLEMETICITY AND EMBEDDEDNESS

The foregoing claims have many consequences, one of which is the fundamentally embedded nature of any particular assumption in one's ontology and, concomitantly, the fundamentally context-bound nature of interpretation. That is, for an interpreting agent to treat something as an index, kind, or individual is possible only in a network of other assumptions (regarding other indices, kinds, and individuals). Likewise, a given quality or event may index a particular kind of a given individual (to a given interpreter) only in the context of already present and active assumptions about the individual's other kinds (given other such indices). In short, something counts as an index of an individual's kind to an interpreting agent only in a context that includes not only the agent's ontology (as a set of assumptions

about the world), but also other more or less co-present indices, kinds, and individuals (themselves often other interpreting agents), as well the framing processes that have as their precipitate such figured, and potentially reconfigurable, indexical co-presences.[8]

Phrased in a contrastive fashion, while analysts often focus on relatively emblematic indices of kinds, such as speech acts (as, say, indicating mental states), uniforms (indicating social statuses), and assays (indicating material substances), most indices are relatively nonemblematic, and, hence, relatively ambiguous, context-bound, fleeting, and difficult to discern. This means that the kinds so indexed may be minimally "objective," and so difficult to characterize as a particular sort of kind in the first place (and thus difficult to reify as something like a social status, mental state, or material substance). Of course, assumptions regarding the relative emblemeticity of an index, or the relative objectivity of a kind, are themselves part of one's ontology.

Relatively emblematic indices, then, are probably overrepresented in analysis precisely because of their emblematic function: they allow interpretation to proceed as if it were relatively symbolic, or convention-based, such that interpretation would be a relatively deductive process of using sign-tokens to get to object-tokens via "codes" (qua intersubjectively shared mappings that relate types of signs to types of objects). In contrast, rather than seeing such widely distributed, relatively stable, and easily recognized emblematic signs as the condition for semiosis (qua "semiotic sovereigns," or intersubjectively recognized signs of, and arguments for, power, contract, or convention), they should be understood as the consequence of semiosis. They should be understood not as something that is used as an explanation but rather as something that is in need of explaining. Language, in its stereotypic sense, and culture, in the strong sense, are as much the consequence of communication as its condition.

FROM IDEAL TYPE TO PRAGMATIC TYPOLOGY

Such ontologies have a further set of properties that are particularly important in the context of human agents. First, as argued at length above, such assumptions, as well as the interpretive inferences they give rise to, are not only enminded in and articulated by those who represent a world, but they are also embodied in those who reside in such a world as well as embedded in the world itself. Relatedly, the assumptions that constitute an ontology may be more or less easy to articulate (if they are articulable at all by the agent in question), and, hence, more or less easy to make explicit to oneself and others via an assertion (or symbolic description more generally). As per the ideas of Putnam (1975) and Rosch (1975), a key way such assumptions are made explicit is via stereotypes (properties typically predicated about referents) and prototypes (referents typically treated as exemplary). Assumptions may be held with more or less commitment, from simply entertained to deeply committed to,; from treated as a firmament of the world to treated as a

figment of an imagination. As mentioned above, assumptions vary as to the degree to which they are grounding of other assumptions or grounded in other assumptions, a fact that probably correlates with the time- scales on which they are transformed, the social scales on which they are entertained, and the material scales in which they are embedded. Assumptions may be more or less specific as to the contexts in which they apply and, thus, have more or less deictic anchoring: from *gold is a metal* to *that one was the hottest*. Any assumption, or set of assumptions, within an ontology may be more or less widely shared and, in particular, more or less assumed to be widely shared: just as we may characterize the social scale of an ontology (or subset of its assumptions) in terms of which interpreting agents have it, so we may characterize the reflexive scale of an ontology (the subset of its assumptions that are assumed by such agents to be shared on a given scale). As will be taken up at length in later chapters, ensembles of assumptions at different scales are often best theorized in terms of modes of inferential and indexical coherence (and incoherence), namely, ways in which particular assumptions (be they embodied, embedded, articulated, or enminded) make sense only in the context of other assumptions via relations such as incorporation (part-whole), complementation (figure-ground), and creation (cause-effect). In these ways, we may speak of the relative portability of an ontology, namely, the degree to which the meaningfulness (and means-ends-fulness) of its assumptions seems applicable to many contexts and applicable in many contexts. In particular, to say that an ontology is applicable in many contexts means that its assumptions are relatively independent of context or that the context they are dependent on is widely distributed (a key function of infrastructure) or that they establish their own context wherever they go. Assumptions may turn on categories (*this is a book, that is a person*) as much as values (*this book is worth reading, that person is worthy of respect*); indeed, this relatively spurious distinction is itself grounded in the assumptions of a particular ontology. Assumptions may be grounded in theories as much as in experiences and may be grounding of theories as much as of actions—indeed, it is usually impossible to separate these domains. Relatedly, ontologies are concomitant with epistemologies: One's set of assumptions includes assumptions about what constitutes good evidence (indexical or inferential) for an assumption (usually other kinds of assumptions), and what a given assumption provides good evidence for. As will be treated at length in later chapters, ontological assumptions may be grounded in (and grounding of) affect and bodily experience as much as inference and cognition. Finally, as a function of all of these properties, ontologies are tightly coupled to (if not indistinguishable from) moral, political, and existential commitments.

In short, as understood here, semiotic ontologies have certain properties that make them similar to, but not the same as, the epistemes of Foucault (1991 [1968]), the ideologies of Marx (1978 [1845]), the epistemic cultures of Knorr Cetina (1999), the paradigms of Kuhn (1962), the commens of Peirce (1998 [1906–1908]), the ontologies and epistemologies of Quine (1969), the imaginaries (reals and symbolics) of Lacan (1981 [1968]), the linguistic and semiotic language ideologies of

anthropologists (Silverstein 1979; Gal and Irvine 1995; Keane 1993; Schieffelin, Woolard, and Kroskrity 1998; inter alia), the frames of Goffman (1986 [1974]), the cultures of Boas (1911), the historical ontologies of Hacking (2002), the relevance wholes of Heidegger (1996 [1927]), the hegemonies of Gramsci (1971), the generalized others or "intersubjects" of Mead (1934), the idols of Bacon (2000 [1620]), the actors and networks of actor-network theorists (Callon 1986, Latour 1988 [1984]), and so forth. Depending on the analyst's commitments and inclinations (and, hence, the analyst's own ontology), they may be pushed further (or pulled back) in any of these (or other) directions. Phrased another way, which itself points back to Max Weber's (1949 [1904]) seminal articulation of the necessarily reflexive epistemology of the social sciences, semiotic ontologies wielded as ideal types function as pragmatic typologies. Thus, semiotic ontologies are objects to be analyzed (indeed, they are a particular kind of kind), as much as semiotic ontology (as outlined in this chapter and developed in this book) is a method of analysis.

ENCLOSURE AND DISCLOSURE

While it is, of course, difficult to talk about ontologies without talking about ontologies, it should be stressed that most assumptions never get talked about as such. And so in describing ontologies in the foregoing ways, we are very likely projecting too much coherence, stability, and explicitness onto them.[9] Indices get treated as emblems; kinds get treated as essences; interpretation gets treated in terms of inference, if not deduction; individuals get treated as subjects (or objects); worldliness gets treated as worlds; and some worlds get treated as *the world*. Whenever we attempt to disclose an ontology, including our own, we all too easily enclose it.

2

Biosemiosis, Technocognition, and Sociogenesis

1. Relations between Relations

A core idea of twentieth-century social theory is *relations between relations,* which is an insight into how various systems, themselves involving disparate kinds of meaning or value, are organized. While this phrase was first introduced by Evans-Pritchard (1969 [1940]) in the conclusion of his classic study on Nuer social relations, the concept goes back to Aristotle's discussion of various forms of justice in the *Nicomachean Ethics* (2001a). In particular, Aristotle argued that equivalence of value should turn on geometric ratios. (See Figure 2.1.) For example, if we are engaged in a system of redistribution (say, what kinds of people should be given what proportion of goods from the collective share), then the following relation between relations should hold: as my status is relative to yours (e.g., you are a knight and I am a knave), so should my share be relative to yours (e.g., you receive ten jugs of wine and I receive one). Aristotle generalized this logic of equivalence to forms of exchange more akin to reciprocation than redistribution and to forms of value turning on discipline and punishment (e.g., an eye for an eye or a Hail Mary for an impure thought) as much as utility and price (e.g., how many bottles of wine for a pair of shoes or how much wage for how much work). Building on Aristotle, Marx (1967 [1867]) characterized value in similar terms, but with a focus on capitalist economies in which the people were (formally) equal and the goods were (qualitatively) different. In particular, value was a relation between people (say, different kinds of roles within a division of labor) mediated by a relation between things (say, different kinds of commodities within a market). (See Figure 2.2.) Marx, of course, was not just interested in where value comes from or why people strive for it, but also in how the systematic misrecognition of the origins of value is both cause and effect of the very relationality that mediates it.[1]

The idea of relations between relations was not just crucial to understanding value in the sense of what someone strives for, it was also crucial for understanding meaning in the sense of what something stands for. Saussure (1983 [1916]), for example, famously introduced this idea with regard to linguistic structure: within a given language, the relation between any particular linguistic form and its meaning

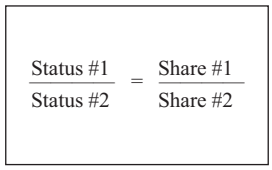

FIGURE 2.1: Aristotle's Relations between Relations

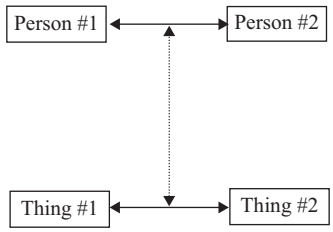

FIGURE 2.2: Marx's Relations between Relations

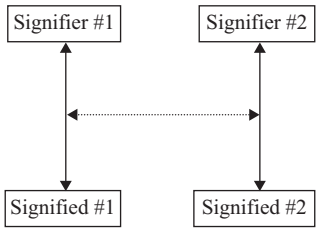

FIGURE 2.3: Saussure's Relations between Relations

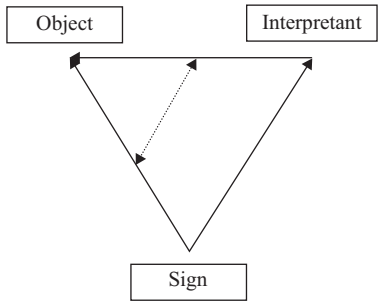

FIGURE 2.4: Peirce's Relations between Relations

(e.g., a word and a concept) must be analyzed in relation to the relations between other linguistic forms and their meanings (say, other words and concepts within a particular grammatical construction or semantic field). (See Figure 2.3.) Peirce, in contrast to Saussure, focused on semiotic processes instead of semiological structures and on inference and indexicality rather than convention and code. But he, too, defined such processes in terms of relations between relations: A sign stands

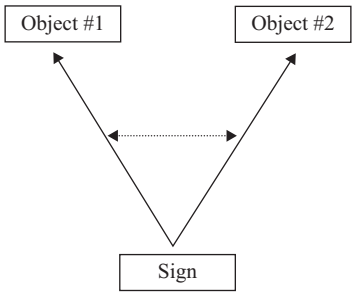

FIGURE 2.5: Veblen's Relations between Relations

for its object on the one hand, and its interpretant on the other, in such a way as to make the interpretant stand in relation to the object corresponding to its own relation to the object (Peirce 1992a [1868]). (See Figure 2.4.) As introduced in chapter 1, joint-attention is perhaps the exemplary semiotic process: A child turning to observe what her father is observing involves an interpretant (the child's change in attention), an object (what the parent, and later the child, is attending to), and a sign (the parent's direction of attention or gesture that directs attention). Here the relation between relations, what Peirce called "correspondence," is the relation between the parent's direction of attention and the object and the child's direction of attention and the object.

The economist Veblen, himself a student of Peirce, merged both of these visions (1971 [1899]), theorizing the relation between seemingly nonpecuniary values (such as social status) and seemingly noncommunicative signs (such as indices of effort). Inspired by Darwin's account of sexual selection (1981 [1871]) and the expression of emotions in man and animals (1965 [1872]), and providing the basic template for many influential theories (such as Bourdieu's [1984 account of distinction and Labov's [2001] account of hypercorrection), his vision of pecuniary emulation was an attempt to explain the selection (and sieving) of social processes over historical time by relatively unintentional pathways. For example, he argued that any nonintentional or "natural" sign of one's ability to produce some original value (e.g., a large store of yams that, by happenstance, indicates one is a good farmer) may become a derivative value insofar as it gets framed as a sign of one's distinction from other farmers. And, therefore, this sign may be intentionally sought in addition to, or even at the expense of, the object for which it originally stood (e.g., people strive to have large yam houses, even if this no longer correlates with having lots of yams). In short, the same entity can be a sign of two different objects: both a natural or happenstance sign of sustenance and a non-natural or covertly communicative sign of status. And the relation between these two simultaneously active semiotic processes was a condition of possibility for complex forms of sociogenesis. (See Figure 2.5.)

This Veblenian process bears a pronounced family resemblance to its Nietzschean cousin (1989 [1887])—the imposition of new values on old objects,

new functions on old forms, and new meanings on old signs. Indeed, one particularly colorful quote of Nietzsche's might serve well as the epigram for this chapter (serving as it does both to detour more optimistic readings and to counter potential misreadings); indeed, it seems to presciently capture the lion's share of insight generated by twentieth-century critical theory:

> But purposes and utilities are only *signs* that a will to power has become master of something less powerful and imposed upon it the character of a function; and the entire history of a "thing," an organ, a custom can in this way be a continuous sign-chain of ever new interpretations and adaptations whose causes do not even have to be related to one another but, on the contrary, in some cases succeed and alternate with one another in a purely chance fashion. The "evolution" of a thing, a custom, an organ is thus by no means its *progressus* toward a goal, even less a logical *progressus* by the shortest route and with the smallest expenditure of force—but a succession of more or less profound, more or less mutually independent processes of subduing, plus the resistances they encounter, the attempts at transformation for the purpose of defense and reaction, and the results of successful counteractions. The form is fluid, but the "meaning" is even more so (77–78).

PARASITES AND THIRDNESS

Or, to generalize and develop as much as exploit and perturb this Nietzschean insight, we may combine the insights of Peirce (1955a) with those of Serres (2007 [1980]). As defined in Kockelman (2010b), and as will be explored at length in the chapters that follow, a*n object (action, sign, agent, etc.) considered as a means to an end (or infrastructure considered as a path to a destination) is a second (or intermediary), but insofar as it implies (embodies or indexes) other ends it might be diverted to serve or indeed implies any way it may fail to serve an end (whether original or diverted), it is a third (or mediator). The parasite is whatever inhabits such implications.*

ANALYTIC OVERVIEW

The first part of this chapter builds on these ideas in arguing that the key unit of analysis underlying the various subfields of anthropology, as well as allied disciplines, is a relation between two kinds of relations between relations. It thereby theorizes, as concomitant processes, the way signs and interpretants relate to significant objects and the way sensations and instigations relate to selecting agents. After carefully defining such a unit, it develops the consequences of such a definition for various domains—ranging from biosemiotic processes such as animal-signal systems and natural selection to technocognitive processes such as lawn mowers and Turing machines. It thereby foregrounds the environment-organism relation at any level of complexity and with respect to any kind of life form. More generally,

it shows how an expanded typology of relations between relations is necessary to analyze processes of significance and selection at disparate scales—from the nervous system to the Internet, from the evolution of species to the interaction of signers. While such disparate processes, on such different scales, are radically different as to their details, this chapter aims for a level of (diagrammatic) generality that captures their similarities.

Framed another way, this chapter attempts to synthesize a number of seemingly disparate processes. It offers a theory of significance in conjunction with a theory of selection, as grounded in a broader theory of relations between relations, and thereby provides a general theory of meaning, or "mediation." It treats such processes of significance and selection in conjunction with processes of sieving and serendipity, and thereby systematically interrelates the key factors underlying emergent forms of organized complexity. And it theorizes codes in conjunction with channels, and thereby links shared cultural representations and networked social relations. In making such conjunctions, it necessarily obviates many of the usual divisions—semiosis versus cognition, mind versus body, human versus animal, nature versus artifice, meaning versus mechanism, interpretation versus explanation, and so forth. Its ultimate goal is to clarify and interrelate modes of biosemiosis, technocognition, and sociogenesis at various levels of scale.

As just seen, this chapter borrows extensively from some of the key theorists of the mid- to late nineteenth century—Darwin, Marx, Nietzsche, Saussure, Peirce, and Veblen— all of whom might be considered "shadows" of the Enlightenment. And while most of the ideas it brings together have thus been around for more than one hundred years, it offers a condensation, synthesis, extension, and—perhaps most importantly—perturbation of such ideas. In part, it is meant to meaningfully reframe the relations among the subfields of anthropology: linguistic, biological, cultural, and archaeological. In part, it is meant to show the nonreductive relations between the concerns of anthropologists and a variety of allied disciplines: linguistics and psychology, cognitive and computer science, evolutionary biology and complexity theory.[2] And, in part, it is meant to introduce and synthesize some of the key concerns of this entire book.

SECTION CONTENTS

Section 2 theorizes two kinds of relationality, selection and significance, and shows their symmetry and complementarity. Section 3 shows how such processes may be concatenated to describe communication between individuals, be it of humans engaging in discursive practices or animals engaging in signal responses. Section 4 shows how such processes may be enminded and embodied to describe cognitive and affective processes within individuals. Section 5 generalizes sections 3 and 4, showing how the very same process of significance and selection may be framed differently by investigators working with different units on disparate scales. Section 6 shows the relation between these processes and classic understandings of natural

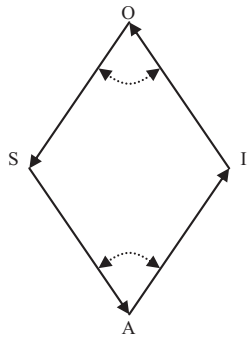

FIGURE 2.6: Selecting Agent and Significant Object

and artificial selection as well as their connection to less-celebrated processes of sieving and serendipity. Section 7 shows the relation between these processes and material artifacts, such as hammers and logic gates. Sections 8 and 9 show how all the foregoing relations between relations play out in any ensemble of signifying and selecting agents, focusing on the network of channels, or infrastructure, that interconnects such agents. And the conclusion relates these concerns to evolution- and epidemiology-inspired theories of culture.

2. Significance and Selection

Two processes need to be defined: selection and significance. If our stereotype of the first process is a tool, our stereotype of the second process is a symbol. More specifically, selection involves an agent wielding a means for the sake of an end. And significance involves a sign standing for an object and giving rise to an interpretant. As will be seen, each process makes reference to three distinct entities; each turns on a relation between relations; and each is intimately linked to the other.

We may start with a simple example. To understand *selection*, focus on the bottom half of Figure 2.6. Let S be the sight of a predator, I be a flight from that predator, and A be the prey that both sees and flees. In other words, there is a sensed event (S), there is an instigated event (I), and there is a sensing and instigating agent (A). We may say that I makes sense in the context of S from the standpoint of A.

To understand *significance*, focus on the top half of Figure 2.6. Let O be the predator, S be a sign of that predator (as sensed by the prey), and I be an interpretant of this sign (as instigated by the prey). In other words, there is a sign event (S), there is an interpretant event (I), and there is a signed and interpreted object (O). We may say that I makes sense in the context of S given the properties of O.

For present purposes, being an *agent* means two things.[3] First, A is capable of sensation and instigation. More specifically, A is capable of being affected by events (that have causes outside of A) and capable of being causal of events (that

have effects outside of A). Second, A is capable of selecting or capable of being selected. In other words, to say something makes sense from the standpoint of A is to say that there is a reason that A would have selected it or have been selected for it. Selection may range from natural selection through cultural sanctioning to self-conscious intention. It may involve processes as "dumb" as brute sieving and as "intelligent" as rational choice, as embodied as heeding an affordance and as enminded as proving a theorem.

Objects are dependent on agents. In particular, an object is just a bundle of features (or projected propensities to exhibit certain features, as per our definition of kinds in chapter 1) relative to which an agent's sensations and instigations make sense (given some process of selection). In other words, an agent senses a feature (S) that is reliably correlated with an entity (O) that has a host of other features, and the event that the agent instigates (I) makes sense only in the context of one or more of those other features. Thus, while one may see that it is a bear from its size and shape, one flees from it because of its speed and strength.

More carefully defined, the key idea is this: *Given the relation between the O-S relation and the I-O relation (which may be external to A), the A-I relation makes sense in the context of the S-A relation (from the standpoint of A)*. This demonstrates the indivisibility of organism and environment (and, indeed, the very obviation of this distinction): There exist two relations between relations (the dotted lines in Figure 2.6) neither of which may be understood without reference to the other. It also demonstrates the symmetry between our theory of the object (and our theory of significance) and our theory of the agent (and our theory of selection). Selection and significance are concomitant processes.

This last point deserves a longer discussion. Terms such as *meaning* and *information* are usually defined in terms of an O-S relation.[4] In particular, S is reliably correlated with O within some domain (or is at least projected to be, given the ontology of the interpreting agent) such that knowing something about S allows one to know something about O. Phrased in Peircean terms (1955a, 1998a [1903]), S is both an index and an icon of O. As an index, it is causally or normatively connected to O (no matter how long or short, simple or complicated, the chain of connections). As an *icon*, it has properties in common with O (at the very least its time and place, with more or less leeway and displacement). Thus, the causal and normative domain may be relatively large or small (spatiotemporally) and relatively complicated or simple (interactionally).[5] What matters is that the correlation between qualities be reliable enough for A's selection to make sense.

However, S could provide information about every single causal and normative process it is caught up in so that to define information in terms of only the O-S relation is not helpful. As shown above, to specify the O-S relation one must specify the I-O relation, and to specify the relation between these relations one must specify the relation between the S-A relation and the A-I relation. That is, the properties of objects make sense only relative to the interests of agents. Moreover, given the fact that much selection is ultimately grounded in natural selection, we may also

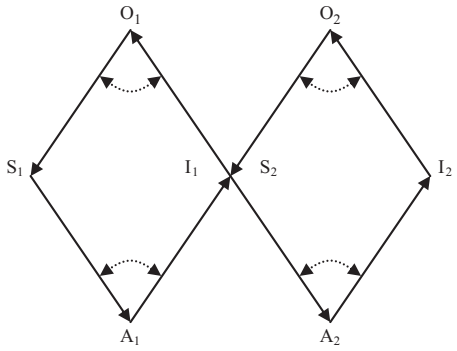

FIGURE 2.7: Communication between Conspecifics

say that agents make sense only in the context of objects. In short, there are no isolated environments and organisms, there are only *envorganisms.* This last point is, to be sure, well rehearsed by scholars such as Darwin, Uexkull, Gibson, Heidegger, and Lewontin.[6] The point here is to frame it in an explicit theory of meaning, and, thereby, to show its natural emergence from more basic, and more well-defined, processes.

3. Communication between Conspecifics

Communication between conspecifics is readily described. (See Figure 2.7.) Suppose A_1 and A_2 are genetically related agents (such as shrieking monkeys or thumping bunnies).[7] Suppose O_1 is a predator, S_1 is the sight of that predator, and I_1 is a danger call. And suppose S_2 (= I_1) is the sound of that call, I_2 is fleeing from the context of that call, and O_2 is just O_1 as stood for by a different sign. Indeed, just as O_1 and O_2 are essentially instances of the same object (or two relatively overlapping objects) as stood for by different signs (the latter indexically "inherits" its meaning from the former), A_1 and A_2 are really instances of the same agent as instantiated in different individuals. Genetically speaking, they are both parts of a single *unit of accountability* (a concept we will come back to). With communication of this kind, an individual not only gets eyes in the back of its head, but it also gets legs detached from its body. The sensing and instigating agent is extended.

We may examine the animal danger call from several perspectives. First, what is crucial about this example is that both interpretation and signification were selected for. That is, not only was A_1's interpretation of S_1 (as well as A_2's interpretation of S_2) selected for, but also A_1's expression of S_2. Here then we have made the critical move from natural meaning to *non-natural meaning*, from "natural information" to "intentional information." However, unlike Grice's classical formulation of this distinction (1989a), which was focused on signs that were selected on interactional time scales by intentional human agents, we are focused on information that was selected

on evolutionary (and historical) time scales by agents that may not be intentional (or may have been intending other effects).[8] While the predator's giving off signs of itself to the prey was not selected for (in the case of the bear example, above), one prey's giving out signs of a predator to another prey was selected for. This is what it means to say that the O_1-S_1 relation constitutes natural or nonselected information and the O_2-S_2 relation constitutes non-natural or selected information. Many human speech acts are the exemplar of non-natural information insofar as they are addressed or intentionally expressed for the sake of others' interpretants of them (a point we will return to,expand on, and complicate in section 4).

Second, the danger call has *roots* and *fruits*: it is simultaneously the interpretant (I_1) of a sign (S_1) and a sign (S_2) with an interpretant (I_2). In this way, it is both retentive and protentive, oriented to both the past and the future. Moreover, insofar as it was selected, it may fail in either of these functions: any one of the sign-object-interpretant relations may go awry. Just as a sign may (be taken to) stand for the wrong object, a sign may also give rise to the wrong interpretant. In this way, to return to our parasites, the *tokens* instantiated may fail to conform to the *types* selected. In the tradition of Austin (2003 [1955]), one might compare human speech acts, and interactional moves more generally (Goffman 1981a, 1983), whose immediate roots and fruits may be framed as particular kinds (say, mental states and social statuses);[9] and which, by failing to have the right roots and fruits on a given occasion, may be inappropriate in context and ineffective on context.

Third, the *mapping* between the object (O_2) and the sign (S_2), and the *remapping* between the sign (S_2) and the interpretant (I_2), is relatively simple. The mapping in question has one kind of content (there is a single type of object to be stood for by a single type of sign: $\text{snake}_{\text{here-now}}$ => $\text{scream}_{\text{here-now}}$). However, one could imagine a more elaborate mapping, depending on whether the object was a terrestrial, arboreal, or airborne predator. And the remapping in question has one kind of mode (there is a single type of interpretant to be created by a single type of sign: $\text{scream}_{\text{here-now}}$ => $\text{scram}_{\text{here-now}}$). However, one could imagine a more elaborate remapping, depending on whether the interpretant should be freezing, fleeing, or fighting. One might contrast the relative complexity of human speech acts, as traditionally understood, whose mode consists of an illocutionary force (e.g., *I order you to*…) and whose content consists of a proposition (e.g., … *shut the door*), both of which may be subject to enormous variation.[10]

4. The Organization of Cognitive Processes

Just as our diagram may be extended to account for objects and agents that are "larger" than the individual, it may also be extended to account for objects and agents that are "smaller" than the individual. As an example, we may focus on a few stereotypic properties of *mental states* as a particularly important sort of kind.[11] (See Figure 2.8.) A sensation (S_1) is caused by a state of affairs (O_1) and indexically

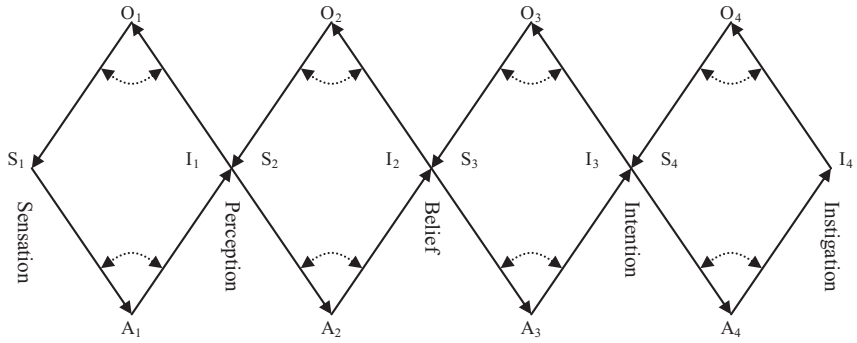

FIGURE 2.8: Indexical and Inferential Enchaining of Cognitive Processes

(or "causally") gives rise to a perception (I_1). A perception (S_2) represents a state of affairs (O_2) and inferentially (or "logically") gives rise to a belief (I_2).[12] A belief (S_3) represents a state of affairs (O_3) and inferentially gives rise to an intention (I_3). And an intention (S_4) represents a state of affairs (O_4) and indexically gives rise to an instigation (I_4), which may itself either immediately constitute or eventually cause the state of affairs so represented. In other words, between the original "sensation" and the ultimate "instigation" may be any number of other cognitive processes, themselves frameable as significant and selected processes.

It is worth discussing in detail the intentions underlying noncommunicative actions—opening a door, making a U-turn, scratching one's chin, and so on. In particular, an intention (S_4) represents a state of affairs (O_4). For example, one intends *to start the engine*. It indexically gives rise to an instigation (I_4) that either immediately constitutes or eventually causes the state of affairs represented. For example, whereas the agent's instigation ends at turning the key (I_4), this is itself the cause of a further effect, such as the engine's actually starting (which is mediated by considerations outside the agent's immediate control: wiring, batteries, etc.). And the intention (S_4) is itself the conclusion (I_3) of an inference involving a contextualized belief (S_3) and a contextualizing pro-attitude (such as a desire, obligation, or value).[13] For example, one believes that starting the engine is a means to driving to the cinema as an end, and one wants to drive to the cinema (because one wants to see a movie, and so on). This is what it means to say an intention has inferential roots (practical reasoning) and indexical fruits (causal chaining).

Crucially, none of these steps need be consciously represented. And our evidence for their existence comes from attending to unsatisfied outcomes, or parasitic processes more generally: the times one turned the key (but the battery was dead); the times one started the car (but couldn't remember where one wanted to go or why one wanted to go there); the times one's fingers slipped (in turning the key); the times one turned the key and started the car (but unintentionally so); and so on. At the very least, all are but potential moves in explicitly articulated and temporally retrospective rationalizations.

Though not shown in Figure 2.8, a belief (S_3) may also give rise to any number of other beliefs before giving rise to an intention (S_4). That is, the "innards" of such a process could be extended indefinitely. Moreover, the instigation (I_4), or whatever state of affairs it ultimately brings into being, may itself constitute an object that causes a sensation, and so such processes could continue indefinitely. That is, the "output" of one such process could become the "input" of another such process, ad infinitum. Cognitive processes are the roots and fruits of other cognitive processes.

In particular, the agent (A), shown at different stages in the process (A_1, A_2, A_3, A_4), is not a homunculus. Rather, it might be thought of as a set of "devices" that have been selected to process representations in a manner that is causally and logically coherent (from the standpoint of that agent).[14] Such selection may involve neurological processes selected for on evolutionary time scales as much as cultural processes selected for on historical time scales as much as personal processes selected for on biographical time scales as much as intersubjective processes selected for on interactional time scales. Moreover, given the potential enchaining of outputs to inputs, maximally intensified with the introduction of speech acts, and discursive practices more generally, the agencies involved are as likely to be interpersonal as intrapersonal. In short, the relations (between relations between relations) introduced above may embed and scale indefinitely. Kockelman (2010a) uses a similar framework to analyze mental states and speech acts, or cognitive representations and discursive practices, in all their indexical and inferential detail, focusing on human-specific modes of intersubjectivity and agency. This work also attempts to account for, leverage, and critique the range of folk-psychological assumptions that are built into this kind of framework—in particular, the way they are mediated by particular semiotic ontologies.

Indeed, if you are wary of cognitive or enminded processes (in the context of human speech acts, themselves framed in intentionalist terms), you may focus on affective or embodied ones. For example, the facial expressions described by Darwin (1965 [1872]), or the affect programs studied by Ekman (2006), are frameable in similar terms—from their roots, involving an appraisal of a situation (qua "sensation"), through autonomic nervous system arousal to their fruits, involving a set of behaviors (qua "instigation"). Moreover, whether the agent is framed in enminded, intentionalist terms (e.g., as a believing and intending "subject" via Descartes) or in an embodied, habitus-like idiom (e.g., as a circumspecting and associating "Dasein" via Heidegger) is of no concern here. As will be taken up in section 4, whether the focus is representations of the world (chapter 5) or residence in the world (chapter 4) there is significance and selection. To be sure, the time scales on which selection occurs may be different, the degrees of agency of the individual may be smaller, the significant features of objects may be more constrained, and the unit of accountability may be larger. Accounts of affect and embodiment are no less dependent on significance and selection than accounts of cognition and mind.

In short, human cognitive processes and semiotic practices are easily compared to (and contrasted with) animal signal systems. One assimilating and accommodating

agent relates to another assimilating and accommodating agent, where each of the agent's interests is caught up with the other's interests. Such interactions are shot through with selectional processes from evolutionary selection of cognitive capacities through historical selection of linguistic constituents to individual selection of actual utterances (which incorporate such constituents and actualize such capacities). Indeed, even those emblems of human cognition, *symbols* (i.e., conventional relations between signs and objects, which seem to be minimally motivated and maximally arbitrary) are subject to selection. Human-specific cognitive processes and linguistic practices are just particularly complex modes of significance and selection.

GRICE AND PEIRCE

It is worth pausing a moment to return to human-specific modes of intentional communication (or "non-natural" meaning), and to thereby link some of the concerns of this section with some of the concerns of the last by synthesizing some insights of the two most important theorists of inference and indexicality, Peirce and Grice.[15] In particular, reframing Grice's insights (1989c; and see Strawson 1971) in a semiotic idiom, there are at least four (significant) objects of interest in non-natural meaning: (1) My intention to direct your attention to an object (or bring an object to your attention); (2) The object that I direct your attention to (or bring to your attention); (3) My intention that you use (2), usually in conjunction with (1), to attend to another object; (4) The object that you come to attend to.

The details of this process can be looked at in several ways. In focusing on the relation between (2) and (4), there are two conjoined joint-attentional processes (recall the Peircean example from the introduction), the first as means and the second as ends. Using some kind of pointing gesture as a sign, I direct your attention to some relatively concrete or proximal object (and thus relatively indexically recoverable, say, some gunk on the bottom of your shoe), and this object, or any of its features, is then used as a sign to direct your attention to some relatively abstract or distal object (and thus relatively inferentially recoverable, say, my desire that you take off your shoes before you come in). Loosely speaking, if the first sign causes your head to turn, the second sign, *itself the object of the first sign*, causes your mind to search.

Objects (2) and (4), then, are relatively foregrounded. They are akin to what Peirce would call *immediate objects*: objects that signs represent (and, hence, that exist because the sign brought some interpreter's attention to them).[16] Objects (1) and (3) are, in contrast, relatively backgrounded. They are akin to what Peirce would call *dynamic objects*: objects that give rise to the existence of signs (and, hence, are causes of, or reasons for, the signer having expressed them). In other words, whenever someone directs our attention there are (at least) two objects: as a foregrounded, immediate object, there is whatever they direct our attention to (2); and, as a backgrounded, dynamic object, there is their intention to direct our attention (1). Grice's key insight is that, for a wide range of semiotic processes, my interpretant of your dynamic object is a condition for my interpretant of your

immediate object. In other words, learning of your intention to communicate is a key resource for learning what you intend to communicate.

A crucial commitment of both Peirce and Grice is that communication, and meaning more generally, does not rely purely on codes (in, say, the stereotypic Saussurian sense, qua relatively conventional pairings between signs and objects) but is highly inferential or abductive in some of the ways just described. What is not stressed enough is the simple fact that the key constraint guiding our indexical and inferential searches within such concrete and abstract spaces (such that we may interpret our interlocutor's signs correctly, or at least more or less adequately) is context, co-occurring text, and culture (and thus relatively intersubjectively shared semiotic ontologies of various scales). And so no matter how sophisticated your formal model of inference and cognitive processing is (for example, relevance theory and formalist approaches to pragmatics more generally), the real devil remains in the nonreductive details of such contents—themselves often best analyzed by classic holistic interpretive techniques from disciplines such as discourse analysis, cultural anthropology, textual hermeneutics, and social history.

FREUD AND GRICE

Note, then, that the preceding section is, in some sense, a generalization of Grice-like ideas in which the dynamic object (or "communicative intention") in question need not be evinced in human agents only on interactional time scales. For example, one way to playfully reread the Freudian oeuvre is to reframe repressed wishes as a kind of dynamic object. Such a dynamic object relates to a dream (parapraxis, neurosis, etc.) as cause to effect, in which the dream itself has an immediate object (whatever it most transparently points to, for example, the manifest dream content), and this object itself constitutes a sign of a more mediate object (the latent dream content), which can be inferred only by reference to the dynamic object (repressed wish) that set the whole process in motion.

More generally, the immediate object of any sign can itself constitute a sign of a more mediate object, itself easily attended to (by an interpreting agent) only by reference to the dynamic object (or original cause) of the initial sign. In this wide framing, "ostensive-inferential communication" of the Gricean sort is very similar to "psychoanalysis" of the Freudian sort—a fact that is destined to be repressed by neo-Griceans. Such a rich account of interpretation, suitably reframed (as well as widened as to ontological specificity), is perhaps Freud's most prescient, lasting, and unconscious contribution.

5. Framing

The last two sections brought the issue of *framing* to the fore, namely, how the very same process of significance and selection may be described, diagrammed, or

theorized in a wide variety of relatively compatible ways (Kockelman 2005). In section 2, for example, we showed the ways in which the same event, qua sign, may be reliably correlated with a range of other events, qua objects. In section 3, we examined an animal-signal system from the standpoint of two signing and interpreting agents, and from the standpoint of a single agent composed of two conspecifics. Moreover, the very same event (the uttering of a predator cry) was treated as an interpretant from one agent's perspective and as a sign from the other's perspective. In section 4, for example, we opened up the agent, diagramming the putative mental states—themselves significant and selected processes—that lie between any two publicly available speech acts or signal-responses. And in chapter 1, we showed the ways indices, kinds, individuals, agents, and worlds could be reciprocally reframed in terms of each other. Thus, just as one can focus on smaller or larger kinds of agents (which may overlap), one can focus on public or private kinds of processes (which may enchain). And just as one can frame the same event as an object, sign, or interpretant, one can focus on either the roots or fruits of an event.

Framing may always creatively refigure, and thereby potentially obviate, the relations presupposed by any particular frame (and thus the reifications such relations are otherwise subject to).[17]

To take an extended example from my own subdiscipline, one may take speech acts (or discursive moves more generally) to be the roots and fruits of mental states, or one may take mental states (or cognitive processes more generally) to be the roots and fruits of speech acts. Either view is tenable, like the two faces of a Necker Cube. In the context of such variant frames (and, in particular, their concatenations), two brilliant and antagonistic traditions have arisen (alluded to at the end of the last section). On the one hand, there are those who argue that "meaning is public" (and tend to focus on public representations, such as speech acts, and discursive practices more generally). On the other hand, there are those who argue that "meaning is private" (and tend to focus on private representations, such as mental states, and cognitive processes more generally). The first group, best exemplified by conversational analysis (with roots in George Herbert Mead, as practiced by scholars such as Harvey Sacks and Emanuel Schegloff), has attempted to deal with communication without reference to mental states. Such a tradition treats speech acts, or interactional moves more generally, as begetting speech acts, never mind any intermediate mental states. And the second group, exemplified by relevance theory (with roots in Paul Grice, as undertaken by scholars such as Dan Sperber and Diedre Wilson), has attempted to deal with communication with primary attention to mental states and minimal reference to actual interactions, or all the dirty little details of semiotic processes more generally. Perhaps not surprisingly, to their detractors the former has remained a highly "empirical" discipline (meaning not very theoretical), and the latter has remained a highly "theoretical" discipline (meaning not very empirical).

In short, the same event may be understood as a component of different processes of significance and selection depending on the interests of an actor or the

stance of an observer (themselves both selecting agents caught up in significant objects). In particular, what is a sign-component in one frame may be an interpretant-component in another frame (giving rise to a future-oriented versus a past-oriented perspective). What is an object-component in one frame may be a sign-component in another frame (lower-order versus higher-order perspective). Figure 2.6 may be iterated to produce Figure 2.7 or Figure 2.7 may be subsumed by stretching Figure 2.6 (proximal versus distal perspective). One may switch from a private to a public frame (actor-centered versus observer-centered perspective). And finally, when analyzing some complicated process, some agents and objects may be treated as figures, thirds, or mediators (often because the mapping from sign/sensation to interpretant/instigation is relatively fluid or poorly understood), while others may be treated as grounds, seconds, or intermediaries (often because this mapping is relatively fixed or carefully studied). *Our analyses of significance and selection are themselves significant and selected.*

The issue with framing, then, is not so much what does a sign stand for or give rise to, or how do an agent's instigations make sense in the context of its sensations, which are often essentially empirical questions. Nor is it so much an issue of whether such questions are answered correctly or incorrectly by a particular investigator nor whether they count as "knowledge" or "ideology" to an epistemic community. (Though to be sure, various analytic approaches often relate to each other as Flatland to Textureville, one subsuming the others as to scale of purview, degree of theoretical sophistication, wealth of empirical backing, scope of practical applications, and so forth.) The crux issue is which time scale, empirical locus, vector of causality, agency, or objectivity is most relevant to the investigator *given their own semiotic ontologies*. Does one zoom in to focus on cognitive processes or neurological signals? Does one zoom out to focus on implicated meanings rather than encoded ones or distal ends rather than immediate ones? Does one look backward toward the roots of an event or forward toward its fruits? Does one ask questions about selection on interactional, biographical, historical, or evolutionary time scales? Does one focus on agents that are neurons, organs, instruments, individuals, dyads, groups, or species?

Framing, then, not only makes explicit the co-constructive nature of the relation between the organism and the environment, it also makes explicit the co-constructive nature of the relation between the analyst and the organism-environment relation.[18]

On the one hand, such claims have relatively prosaic implications. For example, much of what counts as intradisciplinary divides and interdisciplinary differences are essentially questions of framing or different ways of dividing up what are otherwise hopelessly complex processes of significance and selection into individually manageable and institutionally fundable projects. On the other hand, such issues are at the center of human-specific modes of significance and selection. For example, given the fact that, for humans at least, Nietzschean and Veblenian processes are constantly parasitic on (and generative of) our semiotic practices, our interpretant-sign relations are tightly coupled to our object-sign relations. (Not to

mention Marxist ones—in particular, the fact that any envorganism, or process of significance and selection more generally, may become the use-value of a commodity, and, hence, be shaped or sought for the sake of its exchange-value.) In other words, *how we frame our own and others' processes of selection and significance (as well as relations between relations more generally) is often a key factor in the creation, spread, and stability of those very processes*.[19]

LIFE-FRAMES AND FRAMES-OF-LIFE

It is worth summarizing what is perhaps the dominant frame in both cultural and linguistic anthropology: (1) just as the social formations studied by anthropologists are historically emergent and particular; (2) so are anthropologists' epistemological formulations of those formations; (3) in part, this is because they too constitute a social formation; (4) in part, this is because both social formations are usually mediated, however unwittingly, by other social formations and epistemological formulations, themselves historically emergent and particular, at various degrees of remove; and (5) only critical theorists working at the level of, say, Foucault or Marx are really ever witty enough to meta-formulate such meta-formations.[20]

Note, then, that whenever we frame an event (entity, relation, process, etc.) as the outcome of significance and selection, as much as sieving and serendipity, our framing of the event is itself the outcome of significance and selection as much as sieving and serendipity (not to mention all the other relations between relations detailed in this chapter). In this way, both the framing of the event (entity, process, relation, etc.) and the event so framed are historically emergent and particular, and, hence, should be studied *in tandem* and *as such*.

Such moves hold for forms-of-life as much as for life-forms, not to mention that particular form-of-life that postulates life-forms, and that particular life-form—us (and those, such as chickens, with whom we are inextricably entangled)—that exists only as distinct forms-of-life. More pointedly, we are better off dropping received and problematic notions such as life-forms and forms-of-life altogether and using notions like *life-frames* and *frames-of-life* instead. The notion of framing, then, is meant to be a term of art. Frames enclose as they disclose, reify as they reveal, and, hence, their reflexive centrality to this project (Kockelman 1999, 2007a). I hope this way of framing framing invites scholars to inquire into the aesthetics and ontologies of such processes as much as their pragmatics and epistemologies.

6. Artificial and Natural Selection, Sieving and Serendipity

It may now be argued that the terms *artificial selection* and *natural selection* are misnomers: such processes involve significance as much as selection, and they are readily described using the foregoing framework. To treat artificial selection first, take the object (O) to be an ensemble of genotypes (or distribution of alleles) within

an interbreeding population. And take the agent (A) to be an individual (or group of individuals) who are interested in transforming the genotype of the population over a series of generations. This agent senses aspects of the phenotype, which are signs (S) of the genotype, being reliably correlated with it by causal processes of development. And this agent instigates actions (such as selective breeding, isolation, etc.), which are essentially interpretants (I) of those signs: on the one hand, they point to the genome (by causal processes of inheritance and reproduction) as reliably as the phenotype; on the other hand, they make sense in the context of the signs (and the objects these index) given the interests of the agents.

In particular, selection at this level may often be understood in individualist intentional terms: The agent may have beliefs about how the sign is caused by the object (qua generation N) as well as beliefs about how the interpretant is causal of the object (qua generation N + 1); and the agent may have desires about what the sign, and, thus, the object (and, thus, ultimately, the interpretant), should be. To invoke Weber (1978; and see chapter 6), these desires, however tacit, may be grounded in instrumental values (e.g., the price that a petunia of a certain color, size, or shape will fetch) as well as existential values (e.g., an aesthetic sensibility regarding what constitutes the ideal dachshund) as well as traditional values (e.g., achieving results consistent with those of one's mentors). And these beliefs (about the causal processes underlying the mechanism, qua means) in conjunction with these desires (about the outcome of those processes, qua ends) may lead to an intention that gives rise to an instigation, for example, *I shall breed this one with that one*.

To be sure, the beliefs may be untrue and the desires may be unsound, such that the outcome in the short run or long run may be bizarre, self-defeating, unintended, and even unimaginable. Moreover, different agents can have radically different ontologies (or "theories"), however tacit, about the object and its causal connections to what they sense and instigate and yet still do so effectively. Consider, for example, the theories of Darwin or Mendel, an American farmer or a Mayan peasant. Indeed, it may even be the case that the selection was entirely unintentional, occurring by processes akin to sieving and serendipity, as will be discussed below.

Note, then, that it is not just the case that one cannot offer an account of significance without an account of selection; it is also the case that one cannot offer an account of selection without an account of significance.

SIEVING AND SERENDIPITY

Indeed, it is possible to push these ideas further, showing the similarity between the relations embodied in these diagrams and processes such as natural selection. For example, we may take the object (O) to be the ensemble of genomes (or frequency of alleles) within a population of (interbreeding) organisms. Through the causal pathways of development (however complicated), this object gives rise to an ensemble of phenotypes, or distribution of traits (S). The environment then acts as

an agent (A) that sieves through these phenotypes so that some fraction (I) manage to survive, meet, and mate. Finally, through the causal pathways of reproduction, however complicated, these survivors then give rise to the ensemble of genomes (O-prime) that constitute the next generation.

Notice from this example that the ensemble of genomes is being framed as the object, having a loose identity (truly a family resemblance) with itself over generations. And notice that this object is simultaneously instigative of a new ensemble of phenotypes (via developmental pathways) and sensitive to an old ensemble of phenotypes (via reproductive pathways). To be sure, it is probably wrong to say that the environment "senses" and "instigates," and thereby treat it as an agent, however original or derivative, as something that was selected to sense and instigate in precisely this way. Instead, we may invert the frame for a moment, such that what the organism-qua-agent instigates (via developmental pathways) and senses (via reproductive pathways) is perhaps best treated as the input and the output, respectively, of an environment-qua-object that is essentially a *sieve,* giving rise to consequences for no other reason than *serendipity*.[21]

For example, the environment might involve a gradient (constituted by gravity, temperature, illumination, etc.), and so individuals who make it further along the gradient (e.g., up the hill or into the winter or toward the light) are more likely to reproduce and thereby contribute to the next generation. Thus, while we may say that some aspect of some organism was naturally selected (by complex processes of sieving), that which sieves is not necessarily, of course, an artifact, or consciously designed instrument, that has this selecting of phenotypes as its intended function.

(Though it should be noted that the environment of any organism is, in part, constituted by other organisms, themselves selected. Moreover, the environment of any organism is also, in part, constituted by the products of that organism as well as the products of other organisms—from bat excrement to bird nests, from shade to oxygen. This means that whatever is doing the sieving may itself have been selected—though not necessarily to sieve in this manner. Moreover, one should not discount the possibility that an ability to be sieved in such a way was selected for. In short, it is just as easy to underestimate the degree of significance and selection in the world, qua reification, as it is to overestimate it, qua fetishization.)

Such selection is, as it should be, merely a dumb "letting through," and, hence, the idea of agent as a sieve operating for reasons of serendipity. Nonetheless, note that this letting through is fundamentally relational: It is not a function of the phenotype per se, but rather a function of the phenotype's relation to the affordances of the environment, a point we'll take up below. And notice that this relation may turn precisely on the sensory and instigatory capabilities of the population of organisms as phenotypes: the better they can sense and instigate within an environs (i.e., be agentive), and the better these sensations and instigations take into account the "real" features of objects (qua significance), the better they can forge up those gradients to reproduce; and so what is selected by brute sieving may be precisely nonbrutish selectivity and nonarbitrary significance. In this way, the processes

represented by this diagram act as an initial cause of the processes represented by the other diagrams. Significance and selection are best friends with, if not bedfellows of, sieving and serendipity.

7. Lawn Mowers and Logic Gates

Through the work of psychologists such as Vygotsky (1978) and philosophers such as Austin (2003 [1955]), it has long been known that symbols are tools. Less well understood are the various ways that instruments are semiotic processes, a point we may now consider.

In this view, an instrument is not a material artifact per se (say, the configuration of wood and steel that we call a "hammer"). Rather, an instrument is a relational process of selection and significance. (See Table 2.1 [middle row].) In particular, the sign is the configuration of wood and steel that may be sensed by an agent. The interpretant is an action instigated by the agent (say, hitting a nail). And the object is the function of the instrument: both the form of the tool (qua sign) and the wielding of the form (qua interpretant) point to this function. The agent, then, is simply someone who can sense and instigate, such that what is instigated (pounding in a nail) makes sense in the context of what is sensed (the assemblage of wood and steel) from the standpoint of the agent given the features of the object.

Whether or not the agent wields the form for the sake of its creator's intended function is not that important: sometimes the intended and actual functions converge, sometimes they diverge. An agent with different interests (say, someone unable to reach the small of their back to scratch) could, of course, find (or, rather, "frame") a very different function in the same assemblage of wood and steel. Though, to be sure, not anything goes. To use a distinction that will be called into question in chapter 3, both causes and norms regiment the possible interpretants of material objects, guiding what counts as appropriate and effective uses (normatively) and what counts as feasible and efficacious uses (causally). For example, try pounding in a nail with a diaper and you will be sanctioned by "nature," and try wearing a diaper as a hat and you will be sanctioned by "culture."

To be sure, the same assemblage of wood and steel can enter into more obvious processes of selection and significance. In one framing, for example, such an assemblage may be the object referred to by a word such as "hammer." In another framing, it may be a natural or noncommunicative sign that the one holding it has a certain skill or plies a certain trade. In another framing, it may be an emblem of solidarity, a sign of manual labor, or a symbol of status. In another framing, it may be a sign that some group had contact with another group, was connected to a trading route, or possessed the knowledge to mine a certain ore.[22] In another framing, along with an ensemble of other indices (such as other tools, in some particular arrangement), it might be a sign that someone was building a particular kind of contraption (or was plotting revenge or had lost their mind). Finally, this assemblage of

TABLE 2.1

Material Culture and Semiotic Processes

Semiotic Process	Sign	Object	Some Possible Interpretants
Affordance	Natural Feature	Purchase	Action That Heeds Feature, or Instrument That Incorporates Feature (in Light of the Purchase It Provides)
Instrument	Artificed Entity	Function	Action That Wields Entity, or Instrument That Incorporates or Complements Entity (in Light of the Function It Serves)
Action	Controlled Behavior	Purpose	Action That Reacts to Behavior, Instrument That Is Created by Behavior, or Instrument That Complements Behavior (in Light of the Purpose It Undertakes)

wood and steel may not be just a sign or object, it may also be the interpretant of a prior relation of significance and selection. For example, just as an action of wielding a hammer may constitute an interpretant of the function of a hammer, a hammer may itself constitute an interpretant of the purchase afforded by the wood and metal that it incorporates. That is, a larger instrument, as a whole, provides an interpretant of the smaller instruments and affordances that it incorporates as parts: its sign-component (or "form") relates to their sign-components as whole to part; and its object-component (or "function") relates to their object-components as ends to means.

But instruments enter into a more interesting relation of significance and selection. In particular, instruments are not just signs, objects, and interpretants and instruments are not just means and ends; instruments are also agents that process signs to produce interpretants, however derivatively. This is true not just of relatively complicated instruments (such as computers and robots), it is also true of relatively simple instruments (such as hammers and lawn mowers), as may now be seen.

In particular, while it is perhaps too much to say that a lawn mower "senses" and "instigates," lawn mowers are also agents—not because they select per se but because they were selected (as per the definition of an agent in section 2). In particular, a lawn mower was selected (in part, through some original process of fabrication and, in part, through some subsequent process of pushing) to take in uncut grass (qua sensation) and to turn out cut grass (qua instigation). (Indeed, as will be shown in chapter 3, such selectional agency is distributed across a long lineage of envorganisms, which include designer, fabricator, instrument-wielding actor, and actor-wielded instrument, among others.) And this process makes sense only from the standpoint of the agent given the features of the object.

So if we treat a lawn mower as something that senses and instigates, however derivatively, that which is sensed must itself be a sign and that which is instigated must itself be an interpretant, such that each point to that set of correlated features we call an "object." This means that we may frame grass as a semiotic process as surely as hammers—but perhaps best understood as an affordance rather than an

instrument. In particular, the sign is a set of natural features that may be sensed, the object is a set of purchases provided by those features (or something that reliably correlates with those features), and key interpretants are actions that heed those features because of the purchases they provide. (See Table 2.1 [first row].) This is a retheorization of Gibson's famous notion of affordances (1986 [1979]) in terms of more basic processes of significance and selection.

Of course, different agents, in different contexts, may find (or frame) different purchases (qua objects) in the same features (qua signs). For example, one may use the same grassy field to play golf or feed sheep. Lawn mowers, then, are oriented toward a particular subset of the purchases provided by (or ontologically projectable onto) grass. For example, with their blades they are oriented to the fact that grass allows cutting by certain shaped things; with their wheels they are oriented to the fact that uncut grass affords passage for pushing; with their handles they are oriented to the fact that human hands will be doing the pushing; and so on. While it is well known from the work of Gibson (1986 [1979]) and Uexkull (1926) that an environment has different purchases depending on the agent that senses and instigates within it, it is also true that an environment provides different purchases for the very same agent depending on the instruments that they are currently wielding and the actions they are currently undertaking. To generalize the key Boasian insight: one both apperceives (or ap-senses) and apintends (or ap-instigates) through one's instruments, be they "tools" or "symbols," actions or roles, affordances or identities.

INTRODUCTION TO EMBEDDEDNESS

It is worth pausing a moment to make clear the foundational importance of holism as a staunchly nonreductive analytic stance and to relate some of the foregoing issues to phenomenological and textual concerns. There is *incorporation*: certain signs, as parts, make sense only relative to other signs, as wholes.[23] For example, to understand the meaning of a word, we may need to know the sentence in which it occurs (Frege 1955); and to understand the meaning of a sentence, we may need to know the speech genre in which it occurs (Bakhtin 1986). There is complementation: Certain signs, as figures, make sense only relative to other signs, as grounds. For example, to know who "I" refers to may require that we know who is speaking, qua context (Jakobson 1990), and to know who "he" refers to may require that we know who was previously spoken about, qua co-occurring text (Halliday and Hasan 1976). And there is creation: Certain signs, as effects, make sense only relative to other signs, as causes. For example, Mead (1934) and Goffman (1981a) were hyper-sensitive to the ways in which the meaning of an utterance may make sense only in the context of its roots (for example, the utterance it is in response to) and fruits (for example, the utterance that will respond to it). Indeed, much of the work of interpretation turns on an interpreter's constant tracking of, and tacking between, such causes and effects, parts and wholes, and figures and grounds. (Recall our discussion of framing more generally.) When we speak of a text (qua framed

figuring of indexical co-presence, as discussed in chapter 1) as having "texture," it is, in part, precisely the infinitely rich criss-crossing of such incorporating, complementing, and creating relations that we are referring to. And when we described, at the end of section 5, some of the ways in which context, co-occurring text, and culture constrain indexical and inferential spaces, these were some of the relations we were describing.

Indeed, we just generalized such patterned relations from symbolic texts and interactional sequences to material culture, and *meaning-in-the-world* more generally, as a relatively coherent (or "textured") ensemble of affordances, instruments, and actions (as well as roles and identities). As an example of incorporation (qua part to whole), the function served by a spoke may make sense only in relation to (the function of) a wheel. Or the purchase provided by clay may make sense only in relation to a pot. As an example of complementation (qua figure to ground), the function served by a sheath may make sense only in relation to a sword. Or the function served by ice skates may make sense only in relation to ice. Such relations can be shown to structure not just modes of residence in the world (see chapter 4), but also representations of the world (chapter 5)—or the way mental states and speech acts acquire coherent contents only in relation to each other (and, indeed, in relation to modes of residence in the world). Moreover, such relations arguably hold for biological entities in the stereotypic sense (e.g., organs in relation to other organs within the organism and organisms in relation to other organisms within an ecological niche). At this level of analysis, psychologists, linguists, archaeologists, and biologists (*inter alia*) are engaged in very similar—and fundamentally holistic and interpretive—projects. Note, then, that the classic techniques of so-called humanistic scholarship are often precisely the tools needed for studying "nonhuman," "prehuman" and "posthuman" modes of significance and selection.

BEING-IN-THE-WORLD

It is worth pausing a moment to review some of Heidegger's ideas, insofar as they are a fundamental source for philosophical understandings of embeddedness. In offering his account of worldliness in *Being and Time* (1996 [1927]:59–106) Heidegger began by focusing on practical things, or "equipment," such as hammers and shoes. To describe the nature or meaning of such things, he introduced the concept of references (die Verweisungen), which may be loosely understood as the relation things have to each other by virtue of being caught up in practical concerns. With his theory of references, Heidegger was critiquing a tradition that focused on representations (for example, the mental states and speech acts discussed in sections 3 and 4). For Heidegger, references are a more originary mode of meaning than representations: They are not meant to replace them so much as displace them.

To best exemplify references, we may focus on instruments. An instrument refers to the action it is used to undertake (what Heidegger called its "in-order-to"). For example, a hammer makes reference to the action of pounding in a nail. An

instrument refers to the other instruments that complement it (in-terms-of). For example, a hammer makes reference to nails and wood as well as vices and benches. And an instrument refers to the work it will create (what-for), itself often another instrument. For example, a hammer makes reference to the desk that the actor is making. This work, in turn, refers to whoever will use it as an actor (for-whom). For example, the desk makes reference to one's son or daughter as the person who will one day sit there. This work refers to whatever materials it incorporates, themselves often other instruments (from-what). For example, the desk makes reference to legs and a surface, lumber and paint, struts and joints. And this work refers, after a potentially long chain of intermediate works, to a final work (for-the-sake-of-which). For example, the work makes reference to the role of the actor, say, as a carpenter inhabiting a workspace with familiar tools. And, more distally, the work makes reference to the identity of the actor, say, as a father incorporating the role of carpenter while making a desk for his son or daughter for the sake of being a good parent (subject, citizen, etc.).[24]

Crucially, Heidegger's references are self-embedding and indefinitely reticulated. For example, the instrument may itself be the work created by a prior action, and the work may itself be the instrument wielded by a subsequent action. Similarly, the materials may themselves be the work created by prior actions, and the work may itself be the material incorporated by a subsequent work. Finally, the user may herself be the actor who wields the work as an instrument, and the actor was herself the user of the work created by a previous action. For Heidegger, coherence of references (the way affordances, instruments, actions, roles, and identities make sense in the context of each other) is more originary than correspondence of representations (the way a subject is adequate to an object, or a mental state is adequate to a state of affairs).

As should be clear, the account of affordances, instruments, and actions (roles and identities) sketched above is meant to replace Heidegger's account of references.[25] Rather than frame such entities as "referring to" each other, we think of them as semiotic processes that complement, create, and incorporate each other. Chapter 4, in relation to chapter 5, will take up these concerns at length, incorporating them as much as critiquing them.

SHIFTY AGENTS

We may now turn to more explicitly technocognitive instruments such as logic gates (e.g., AND), algorithms (e.g., Archimedes sieve), artificial languages (e.g., LISP), and computers per se. In particular, consider a logic gate that has two inputs and a single output. In a limited sense, it senses its inputs and instigates it outputs, and it was selected (by some other agent, of which it is derivative) to instigate in a certain fashion in the context of a certain sensation. For example, if both its inputs register voltages above a certain threshold, its output is to create a voltage above a certain threshold. And just as the inputs may be reliably correlated with events in

the world, so may the output be reliably correlated with events in the world. Indeed, the latter should make sense in the context of the former from the standpoint of the agent, given the features of these events. For example, perhaps the inputs reliably correlate with high humidity and high wind, and the output reliably correlates with the closing of a house's shutters. Thus, while the creator of the logic gate (as one of the more original agents contributing to this scenario) may have had a very general object in mind, whoever later places the gate in a particular circuit (as a subsequent agent) projects a much more specific object onto the inputs and outputs of the logic gate—in this example, bad weather.

One might, therefore, think of such devices, and any function with inputs and outputs more generally, as shifters semiotically akin to words such as *here*, *now*, and *us* (Jakobson 1990). Their meaning (qua significant features of the object) and motivation (qua interests of the agent who selected them) are only relatively specified only in a larger context, say, one that takes into account a longer circuit (e.g., accumulator), a complementing affordance (e.g., electrons), an incorporating instrument (e.g., personal computer), a creative action (e.g., uploading a file), and a performed identity (e.g., a playful and irreverent hacker).

Indeed, all the usual questions of framing arise. For example, the same gate (along with many identical siblings) might be used in a latch (a very basic form of memory), itself used in an accumulator (a very basic kind of adder), itself used in a CPU (e.g., a Turing machine built with a von Neuman architecture). And just as a bicycle (as a relatively large instrument) provides an interpretant of the function of the smaller instruments that make it up (e.g., spokes, pedals, chains, and so forth), and just as these smaller instruments provide interpretants of the purchases provides by the affordances they incorporate (such as steel, plastic, and rubber), an accumulator provides an interpretant of each of the logic gates that make it up, and each of these logic gates in turn provides an interpretant of the purchase provided by the affordances it incorporates (from silicon to solder, depending on the current state of technology). In short, just as one can zoom out to the function served by many interconnected digital computers (qua Internet), however wide, one can zoom in to the purchase provided by many incorporated silicon atoms, however narrow.

The logic gate, then, is a relatively derivative agent (its own placement in a circuit, and sensing and instigating function, being determined by whoever made it and whoever connected it). While it may have a far smaller degree of agency than such more originary agents, it should be remembered that those more complicated agents (that seem to select) were themselves selected to serve various functions (however broad) on other time scales (however long) as parts of other units of accountability. In other words, don't get hung up on the fact that instruments are "derivative" agents. There is no life- form that isn't a derivative agent in this account. Indeed, there is probably nothing that isn't at root selectionally grounded in the dumbest of agencies—sieving and serendipity.

(Which is not to say that human agency, be it understood from an intentional or a semiotic stance, isn't spectacularly unique and efficacious in its practical and

theoretical agency [as will be foregrounded in later chapters]. Indeed, human beings were selected to have the widest of functions, oriented to different meanings for different motivations depending on the context of their cultures: *Homo sapiens* should be renamed *Homo shifters*.)

Finally, while the focus has been on logic gates and lawn mowers, one could probably give a similar, albeit much more complicated, account of neurons. And one could give a similar account of the functions that make up computer programs (and perhaps many mathematical formulas as well). And just as we shifted frames in section 3, above, to focus on the cognitive processes that mediate between speech acts, we could also shift frames to focus on the neurological processes that mediate cognitive processes. All of these are input-output devices, or sensing and instigating agents, that can be scaled up, and sometimes down, to infinite degrees of complexity, with such wholes and their parts functioning as relatively derivative agents and having a variety of more or less specific objects, given the shifting contexts of their circuitry. Moreover, they themselves are "hooked up" with speech acts and cognitive processes and material practices, such that the entire "circuit" (qua network of interconnected envorganisms) functions as a single system of selection and significance, with a huge number of inputs and outputs and with the entire ensemble sensing and instigating "differences that make differences," to use Bateson's (1972) famous phrase, whether or not the original or ultimate agents are selected, and whether or not the original or ultimate objects are significant. In other words, while our focus has been on selection and significance, sieving and serendipity may be operative on any scale within such a network, a point we will return to in the next section.

8. Relations between Relations Revisited

We just saw how we may take more basic processes of significance and selection and interconnect them to any degree of complexity imaginable, from a neuron to the nervous system, from a logic gate to the Internet, from an organism to an ecological niche, from a signer to a semiotic community. In the context of such interconnections, it is worthwhile reviewing some of the simpler kinds of relations between relations that are always present as well as describing a more complicated kind of relation between relations that is simultaneously at play.

Figure 2.9 shows the interrelations among the various relations between relations that are discussed in this chapter. As may be seen, it is meant to be an expansion, or blowup, of a tiny piece of a much larger network, say, a small piece of a conversation that is currently in the frame of an investigator, itself a five-minute swatch in the life of two members of a particular speech community. Moreover, just as it is meant to represent the fine structure of some link in the top network, any of its own links could be expanded to reveal their fine structure, say, the cognitive processes that mediate between what the speaker just heard and what she is about to say, or the material infrastructure of the digital environs that connects this speaker

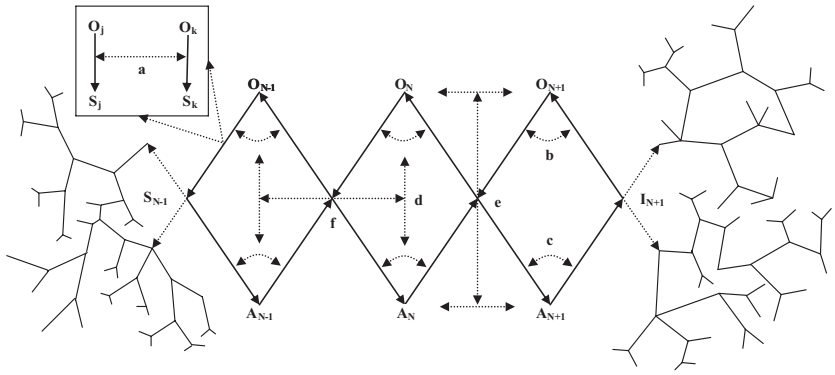

FIGURE 2.9: Relations between Relations Revisited

to an addressee some 5,000 miles away. Dashed lines indicate the ways in which this kind of interrelationality may fractal in or rhizome out indefinitely.

The subset of relations between relations marked (a) are the classic Saussurian kind: The relation between any sign and object (or signifier and signified) makes sense only in the context of other sign-object relations within a semiological structure or code. While these relations are made explicit only in one part of the diagram, they should be understood as potentially holding along any object-sign (and interpretant-object) relation within the diagram. As may be seen, while such relations were an object of awe and contempt in structuralist and poststructuralist circles, respectively, they are at best only a tiny sliver of onion in the whole enchilada. Perhaps never before was the aim of an entire generation of critical theorists thrown so far off mark in thinking they had understood or undermined the foundations of meaning.

The subset of relations between relations marked (b) are those linking signs, objects, and interpretants as introduced by Peirce with his notion of correspondence.[26] In chapter 3, I will argue for the centrality of this kind of relationality and for its paradoxical elision from much of twentieth-century social theory; moreover, in chapter 3, we will use it to sketch a semiotic ontology of commodities (Kockelman 2006a) to analyze the distribution of semiotic agency, and, more generally, to pursue some of the stakes of such analyses for (post)humanist framings of self and society.

The subset of relations between relations marked (c) are those linking agents to sensation and instigation. In some sense, these go back to Aristotle's theory of the soul (as that which "senses" and "moves") and should be intuitable to anyone who ever thought about organisms. But Uexkull's account of the disinhibiting ring and drive organ in animals (1926), along with his exquisite diagrams, comes closest to this conception. In this chapter, such relations between relations were also generalized to describe more "derivative" agents, such as instruments and environments.

The subset marked (d) are the relations between the foregoing two relations that have been the central focus of this chapter: the essential complementary and symmetry of sign-object-interpretant relationality (b) and sensation-agent-instigation

relationality (c). This is the relation between relations that constitutes the organism-environment interface, or, rather, the envorganism itself. As made explicit in this chapter, such envorganisms are subject to various modes of framing via processes such as complementation (figure versus ground), creation (cause versus effect), and incorporation (part versus whole). Where such a boundary is drawn is a function of the relation between the analyst and envorganism being analyzed, which is itself an agent-object (analyst-envorganism) relation.

The subset marked (e) are the social relations introduced by Aristotle and Marx, namely, a relation between people mediated by a relation between things, where both these modes of relationality are themselves grounded in significance and selection. Crucially, this chapter has generalized this kind of relationality, namely, a relation between agents (which can also be "things") mediated by a relation between objects (which can also be "people"). More generally, the people so related may be not only buyers and sellers, speakers and addressees, selves and others, they may be also interactors at any scale, from afferent neurons to ecological niches, from communities to corporations. For example, the interrelated agents and objects can be vervet monkeys and predators, logic gates and bad weather, a woman and her lawn mower in relation to her purpose and its function.

The subset of relations marked (f) are a kind different from the subset marked (e), even though they seem similar. They may be understood as relations between relations of type (d) as constituted by an ensemble of interconnected envorganisms—be they neurons or logic-gates, speech acts or mental states, instruments or actions, intentional individuals or sieving gradients. These relations, then, are mediated by actual and possible configurations of channels, such that the sensations and instigations, or signs and interpretants, of one such envorganism make sense only in the context of the sensations and instigations, or signs and interpretants, of other such envorganisms.[27] In some sense, this is a way of generalizing Saussure's insights from codes or "languages" (qua relation between signs and objects) to channels or "infrastructure" (qua relation between signers and interpreters), a point that requires some unpacking.

MEDIA

But before continuing, it should be emphasized that this chapter is a theory of media in the wide sense (as that which mediates). In particular, any relation in Figure 2.9 is such a site of mediation. In this way, this essay incorporates and extends more narrow senses of media, for example, technological and/or aesthetic forms of mediation (such as film, radio, print, and so forth) that will be theorized in chapter 3. Indeed, if one takes selection (on any scale) to constitute function, and if one takes framing (of any scale) to constitute aesthetics, then the distinction between a wide and narrow definition of media actually disappears. Thus, most theories of "media," as the very term suggests, are really theories of a handful of reified products of

mediation. *All life forms, including that life form that only exists as forms-of-life, are simultaneously forms-of-mediation and media-in-formation (and maybe even vice versa, if only increasingly so).*

9. Networks of Interconnected Envorganisms

To understand this last kind of relation between relations, one needs to notice the fundamental similarity between codes and channels. A *code* in the traditional sense is a set of type-type relations: Signifiers (or signs) of one type are paired with signifieds (or objects) of another type. For a natural language, such as English, it takes an entire dictionary to fully specify the code, namely, a set of mappings between words and concepts. And for a logic-gate, such as NOT, there may be only two sign-object relations to specify: what voltage range counts as "true" and what voltage range counts as "false." In contrast, a *channel,* in the traditional sense, is a connection between the speaker and the addressee (or between the signer and the interpreter) such that signs expressed by the former (via processes that include instigation) may be interpreted by the latter (via processes that include sensation). Channels include synapses, air, and Ethernet cables—some of which are naturally occurring affordances and some of which are artificially designed instruments (relatively speaking).[28] Note, then, the fundamental symmetry: just as codes connect signs and objects, channels connect signers and interpreters. Rather than focusing on what signs to send, we now focus on where to send them.[29]

Now while Saussure had very little to say about channels, he had a lot to say about codes. In particular, he made a famous set of distinctions that was grounded in his understanding of codes, and grounding of his structuralist theory of language: selection versus combination, *langue* versus *parole,* synchrony versus diachrony, and arbitrary versus motivated. With two key caveats, each of these distinctions may be extended to think about channels, infrastructure, and networks more generally.

As for the first caveat, the point is not just to generalize Saussure's categories from codes to channels (which would simply give us a structuralism of the channel, thereby privileging *langue* over *parole*, synchrony over diachrony, and the arbitrary over the motivated). Rather, the point is to take his categories to be poles of a continuum and to understand social theory as requiring every range of positions within this continuum, and, thus, to focus on the motivated as much as the arbitrary, on practices as much as structures, on selection as much as combination, on transformation as much as stasis.

As for the second caveat, our focus is not on a channel per se, but on a network of channels linking an ensemble of envorganisms. The problem with a word such as "network" is that its referent is often envisioned as a two-dimensional surface occupying a three-dimensional space (both like a "net" and somewhat like the Internet), where one should, rather, try to imagine an N-dimensional substance (itself chock

full of brains and fangs) crammed into a four-dimensional space time. With these caveats in mind, we may begin the generalization.

FROM CODE TO CHANNEL

First, rather than think about selection (of paradigmatic alternatives within a code, e.g., whether one says *he*, *she*, or *it*; or whether one says *was*, *is*, or *will be*; or whether one says *happy*, *sad*, or *angry*), think about which channels (to which interpreters) are simultaneously accessible to a single signer (within a given network). And rather than think about combination (of such selections in linearly ordered syntagms, e.g., *she is angry*, *he was sad*, *it will be happy*, etc.), think about which channels may be sequentially accessed from a single signer. That is, operations like selection and combination are at work in the domain of channels as much as in the domain of codes. And just as the "value" of a sign (qua signifier-signified relation) for Saussure is dependent on its role in a grammar's code, the value of an envorganism is dependent on its role in a network of channels, where, by "value," we mean how exactly, given this larger context, the features of its object or the interests of its agent should be understood (itself dependent on the frame at issue).

Just as the complementary notions of combination and selection may be extended from codes to channels so may the complementary notions of *langue* and *parole*, understood here in the wider sense of "structure" and "practice." For modern students of language as code, structure has two very different valences. On the one hand, it is pure potentiality: with a finite number of words and rules one can create an infinite number of different sentences. On the other hand, it is pure necessity: a grammar specifies how one should speak or what counts as an acceptable sentence. Practice is thereby subject to two different valences as well. On the one hand, it refers to any actual sentence said in a particular context—a singular entity usually called an "utterance." On the other hand, it refers to all the ways in which such an utterance can parasitically fail to go according to plan: It may be ungrammatical for serendipitous reasons (a butterfly tickles our throat), or it may be ungrammatical for aesthetic or political reasons (a poet uses an adjective as a noun, a subcommunity inverts the meaning of *tu* and *vous*). Indeed, in this last sense, practice may be to structure as David is to Goliath or crime is to police. Poetic meter, from the structure of Petrarchan sonnets to the suite of Internet protocols, has both of these properties: *A finite domain of constraints leads to an infinite range of configurations, and any such configuration can both instantiate and undermine the set of constraints*.

To focus on the structure and practice of a network of channels interconnecting an ensemble of envorganisms, then, is to foreground the tension between these valences. In certain cases, so long as the outputs, or instigations, of one envorganism match the inputs, or sensations, of another, the two can be combined. And meeting such constraints may involve a relatively simple matching of signals—of voltages (across logic-gates), of codes (across speech communities), of neurotransmitters (across synapses), and so forth. Selection and combination of such simply

matched channels may then give rise to configurations of unimaginable complexity. Think, for example, of the simplicity of train tracks understood as a small set of identically gauged segments (I's, C's, Y's, and X's, for example) and the complexity of train tracks when such segments are interconnected. In short, the structure of channels refers to a relatively small set of principles or protocols that determine how envorganisms may be interconnected (via processes such as combination and selection), thereby giving rise to a relatively large set of configurations. And the practice of channels refers to an actual configuration, itself usually an instantiation, and sometimes an undermining, of the principles that gave rise to it.

Third, rather than think about synchrony (or stasis) in terms of the code that constitutes a grammar at a particular moment, think about the selected and combined channels, and governing principles and instantiated practices, that interconnect an ensemble of envorganisms at a particular time scale. And rather than think about diachrony (or transformation) as changes in grammatical structure over historical time, think about the changes in the selection and combination, structure and practice, of channels that occur on various time scales: evolutionary, historical, biographical, interactional, and so forth. Temporally, such scales may range from eons to nanoseconds; spatially, they may be interstellar or subatomic. For example, these ensembles are not static: Objects and agents may be born or die, may be introduced or taken away, may start up or break down at a moment's notice. Indeed, in more human terms, and given present concerns, a fundamental interpretant nowadays is connecting or disconnecting a channel (think Twitter and Facebook), that is, the fundamental mode of real-time instigation by human actors is selecting what (and whose) instigations one will sense and what (or who) will sense one's instigations.

Finally, we may turn to Saussure's distinction between the arbitrary and the motivated, itself going back to Aristotle's distinction between convention and nature. For Saussure, such a distinction was meant to describe the relation between a sign and an object: why was a particular sound pattern (e.g., the word *rat*) paired with a particular concept (e.g., domestic vermin)? In this chapter, in contrast, we have been focusing on motivation in the sense of selection: not only how a sign stands for its particular object, but also why an agent produces a particular interpretant (which may itself, in another frame, be a sign). Moreover, in Peircean terms, Saussure thought language was mainly symbolic (with such relations grounded in convention) and minimally iconic and indexical (with such relations grounded in similarity or contiguity, respectively). In contrast, we have been foregrounding the essential link between selection and significance, or "meaning" and "motivation," and we have been focused on a much wider set of selected and significant processes than natural languages.

With these caveats in mind, we may use the pairing between the arbitrary and the motivated, in an expanded sense, to think about the network of channels connecting an ensemble of envorganisms. In particular, the central move is this: while any envorganism is, by definition, caught up in relations of significance and

selection, envorganisms may have their effects channeled out to other envorganisms at great distances of remove, and any envorganism may have its causes channeled in from other envorganisms at great distances of remove, and these causes and effects—however large and lasting, splendid or devastating—may not have been selected for their significance. In some sense, then, the most interesting questions lie at the edge of (and often far beyond) processes of significance and selection. Sieving and serendipity are not just operative in natural selection, at the roots of the system, but they are also operative in the mediating relations between any two interconnected envorganisms, as some of the fruits. *Just as selection and significance (qua "the motivated") are at work, sieving and serendipity (qua "the arbitrary") are at play for every unit and at any scale*.

AGENCY AND THE UNITIZATION OF ACCOUNTABILITY

Note, then, that the way the term *agent* has been defined and implemented in this chapter should ensure that properties such as free will, subjectivity, cognition, and so forth are *not* presumed. Rather, agency is a wide term, defined in relation to objects, on the one hand, and signs and interpretants, on the other, where any bundling of all of these, qua envorganism, gets its value only in relation to an ontologized and ontologizing world, or *-verse*, of other envorganisms, and where all of these relations, insofar as they are the projection of a particular framing and ontology, are themselves already subject to the demands of enclosure. Figure 2.9 is an attempt to frame all of this at once.

Moreover, such relations between relations are fundamentally rooted in *selection*—a term that is meant to range over a very wide set of processes, some of which look quite a lot like classic notions of free will (qua intentional actors, selecting instruments and actions on interactional time scales, with potentially huge amounts of freedom and foresight); some of which look like sieving in combination with serendipity, and thus processes such as natural selection; some of which look like the circumspection and association, or the *umsehen* and *umgehen*, of Dasein-like entities; and some of which don't look like any of these at all.

Finally, the agents (or envorganisms) in question are fundamentally widely distributed, multidimensional, and, by degrees, notions—only sometimes coinciding, under certain framings, with stereotypically agentive entities—such as animals, people, instruments, environments, cultures, and life-forms. In particular, our attempts to designate "agents" are usually only quixotic efforts to *enclose agency*, which really only ever exists, as it were, in the wild, outside of any frame, in ways that are as murky, fleeting, and distant as the modes of mediation that constitute it. That said, the temptation to move from agency to agents or from mediation to mediators and intermediaries will always be great, for they allow one to treat the agent at issue as a *unit of accountability* (Kockelman 2007b, 2007c) in all of its extended senses—not only that which is responsible (and hence potentially subject to praise or punishment), but also that which is worthy of an account, a locus of

selection, potentially typifiable and quantifiable, and so forth. We will return to these points in chapter 3.

10. The Evolution and Epidemiology of Culture

Sieving and serendipity, especially when understood in relation to a network of interrelated envorganisms and as giving rise to complex and emergent code-like patterns (such as "language" and "culture," understood in the traditional sense of relatively stable and group-specific linkages between signs, objects, and interpretants), should be understood as playing key roles in several other traditions, which I only touch on here. First, the relation between sieving and computer languages (and, more generally, finite automata, context-free grammars, and Turing machines) is profound. When framed in their generality, the key issue underlying such processes is that of a filtering device that accepts certain strings (and thereby "recognizes" certain languages, qua sets of strings) and rejects others (Sipser 1996). To foreground the power of such a vision, note the infinitely wide range of things that can be represented by such strings (mod the frame of relevance and degree of resolution): all media, DNA, and the computer programs themselves. To be sure, most computer programs in the stereotypic sense are selected (written and implemented) precisely for the effects of their sieving. However, much research is ongoing on cellular automata and similar processes, namely, complex, organized, and often useful patterns generated by sieve-like processes involving large arrays of relatively simple agents that do not seem to have been selected in any traditional sense. The field is enormous, but early highlights in theoretical biology include Kauffman on self-organizing systems (1993, 1995).In the field of anthropology, recent highlights include Lansing (2006) on water temples in Bali. Ironically, in Mitchell's (2009) careful and accessible overview of this field of complexity studies, the question of meaning receives only a paragraph (184). *The present chapter's focus on meaning, or rather significance, is thereby meant to complement that tradition's focus on sieving and selection—to take up a similar set of questions from a very different starting point*.

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Second, there is a relation between sieve-like processes and the research agenda carved out by the proponents and opponents of memes (Dawkins 1976;, Hull 1988; Sober 1992; Sterelny 1994; and see Sterelny and Griffiths 1999 for a review), epidemiology-inspired scholars of language and culture (Atran 2002; Boyer 1994; Enfield 2003; Sperber 1996; *inter alia*), anthropologists interested in the relation between cultural evolution and genetic change (Boyd and Richerson 1985, 2005; Cavalli-Sforza and Feldman 1981; Tomasello 1999; *inter alia*), and linguistic anthropologists and sociolinguists interested in the relation between the circulation of sign-forms and the establishment of dialects and registers (Labov 1994, 2001; Agha 2007). For example, Sperber (1996) makes the compelling argument that cognitive processes, themselves probably selected on other time scales for other purposes (say, navigating the social and environmental affordances of the Pleistocene), may come to

bias the kinds of representations (qua "beliefs" and "concepts") that spread easily and stabilize widely, giving rise to the patterns many would call "culture." In the framework offered here, such cognitive biases are just one kind of sieve among many.

Indeed, it is worth making one relatively arch-Boasian aside: *the representations we already have (qua sign-object relations or "cultures," "codes," and "contexts"), and the relations we are already implicated in (qua signer-interpretant relations or "networks," "channels," and "infrastructures") are perhaps the two most important sources of sieving (and selection) underlying the representations and relations we will come to have*.[30] This fact is perhaps the real barrier to any nonholistic, reductionist understandings of the "evolution" or "epidemiology" of culture.

MULTIVERSE

Indeed, given all the different ways in which significance and selection may be ontologized and framed such that the universe is really a multiverse—each actor caught up in, and each analyst oriented to, a different web of interrelationality—we may say this: where we draw the boundary between the motivated and the arbitrary, or how we frame the divide between what is selected and significant and what is sieved and serendipitous, is itself grounded in processes of selection and significance and processes of sieving and serendipity.[31] To paraphrase Wallace Stevens: The aim, however unachievable, is to see nothing that isn't there and the nothing that is.

3

Enclosing and Disclosing Worlds

1. The Neo-Organon

In the *New Organon* (2000 [1620]), Francis Bacon made his fateful distinction between knowledge and power: if the task of knowledge is to find for a given nature the source of its coming-to-be, the task of power is to super-induce on a given body a new nature. In making this distinction, Bacon offered his vision of an empirical science of material substance, itself grounded in the inferential processes of the human mind and the normative practices of an epistemic community. And he theorized the range of "idols"—from human-specific capacities to culture-specific practices—that could both guide and mislead such modes of inquiry.

This chapter tacks between the "natures" investigated by natural scientists such as Bacon and the "second natures" analyzed by anthropologists as well as by behavioral scientists and critical theorists more generally. It returns to the notion of semiotic ontologies, as introduced in chapter 1, and thereby focuses on the relations between three *kinds* that may be loosely described—and, alas, potentially reified—as material substances (e.g., gold, plastic, bacteria, and snowflakes), social statuses (e.g., vagabonds, uncles, sellers, and addressees), and mental states (e.g., beliefs, desires, hopes, and fears). In particular, it treats such kinds as (projected) propensities for being that admit to interpretive reasoning, where such reasoning is grounded in semiotic processes that turn on indexicality and inference. It analyzes the ways such kinds get indexed and inferred, constructed and naturalized, transformed and stabilized, "found" and "super-induced," and, more generally, enclosed and disclosed in interaction. And it widens the notion of interaction to include not only the relations between people, but also the relations between things and the relations between people and things (and anything outside or in-between). In some sense, then, this chapter theorizes the interaction of kinds through the lens of knowledge and power, on the one hand, and semiosis and ontology, on the other.

OVERVIEW OF SECTIONS

The first and longest section of this chapter enumerates, defines, and interrelates key analytic concepts from Peirce's semiotic theory insofar as they intersect with

public, human-centered, and community-specific processes. In part, this is done to introduce a theory of semiosis and a metalanguage for doing semiotics, and, in part, this is done to argue against certain pervasive and erroneous assumptions about signs. The goal, then, is neither to expound nor to espouse Peirce, but rather to use his work as a starting off point to develop a broader theory of semiosis—itself a key part of the more general theory of significance and selection that was presented in chapter 2.[1] After semiotic processes in their generality are defined and exemplified, this section discusses their various components (signs, objects, interpretants), and various relations between these components, as these intersect with classic concerns of social theory, such as objectivity, mediation, motivation, value, and fetishization.

The next three sections use these concepts, in conjunction with ideas developed in chapters 1 and 2, to build up a theory of kinds as mediated by semiotic ontologies, paying particular attention to agency and performativity. Section 3 treats the relation between kinds, indices, and inference, focusing on the construction and naturalization of social statuses, material substances, and mental states. Section 4 focuses on emblemeticity, or relatively public and predictive indices of underlying kinds. Section 5 treats the relation between semiotic agents and generalized others, and thus the factors that enable and constrain various modes of knowledge about, and power over, such kinds. And section 6 theorizes six types of performativity that such kinds are subject to vis-à-vis their interactions with such agentive others, where such agents are themselves understood as a certain sort of meta-kind, and where performativity is itself understood in terms of transformations in and through semiotic ontologies.

2. Semiotic Processes, Social Theories, and Obviated Ontologies

Semiotics is the study of semiosis, or "meaning," a process that involves three components: *signs* (whatever stands for something else), *objects* (whatever a sign stands for), and *interpretants* (whatever a sign creates insofar as it stands for an object). (See Table 3.1 [row 1]).) In particular, any *semiotic process* relates these three components in the following way: A sign stands for its object on the one hand, and its interpretant on the other, in such a way as to make the interpretant stand in relation to the object corresponding to its own relation to the object (compare Peirce 1992a [1868]). What is at issue in meaningfulness, then, is not one relation between a sign and an object (qua "standing for"), but rather a relation between two such relations (qua "correspondence"). The logic of this relation between relations is shown in Figure 3.1 (and recall the top- half of Figure 2.6).

As we saw in chapter 2, *joint-attention* is a semiotic process. In particular, a child turning to observe what her father is observing, or turning to look at where her mother is pointing, involves an interpretant (the child's change of attention), an object (what the parent is attending to or pointing toward), and a sign (the parent's

TABLE 3.1

Typology of Semiotic Distinctions

	Firstness	Secondness	Thirdness
Semiotic Process	Sign	Object	Interpretant
Sign (Object, Interpretant)	Quali-	Sin- (Token)	Legi- (Type)
Ground	Iconic	Indexical	Symbolic
Interpretant	Affective	Energetic	Representational
Semiotic Community	Commonality	Contrast	Consciousness
Social Relation	Role	Status	Attitude
Practical Agency	Control	Compose	Commit
Theoretical Agency	Characterize	Thematize	Reason

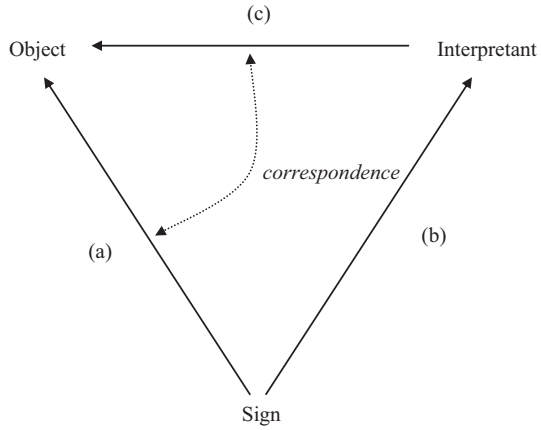

FIGURE 3.1 Semiosis as a Relation between Relations
A sign stands for its object on the one hand (a), and its interpretant on the other (b), in such a way as to bring the latter into a relation to the former (c) *corresponding* to its own relation to the former (a).

direction of attention or gesture that directs attention). Indeed, for human kinds on developmental time scales, such a process is perhaps the primordial form of objectification: within a particular kind of intersubjective space, or enclosure, something is disclosed.

As Mead noted (1934), any interaction is a semiotic process. For example, if I pull back my fist (first phase of an action, or the sign), you duck (reaction, or the interpretant) insofar as my next move (second phase of action, or the object) would be to punch you. Generalizing interaction, and reframing one of the key concerns of conversational analysis, the so-called pair-part structures of everyday interaction—the fact that questions are normatively followed by answers, offers by acceptances, commands by undertakings, assessments by agreements, and so forth (Goffman 1964, 1981a;, Sacks et al. 1974)—consist of semiotic processes in which two components (the sign and interpretant) are foregrounded. In particular, a type

of utterance (or action) gives rise to another type of utterance (or action) insofar as it is understood to express a proposition (or purpose).

As exemplified by joint-attention, this formal definition of a semiotic process provides a preliminary description of *intersubjectivity*: a self (or "subject") stands in relation to an other (or "object"), on the one hand, and an alter (or "another subject"), on the other, in such a way as to make the alter stand in relation to the other in a way that corresponds to the self's relation to the other. Phrased in terms of pronouns: I stand in relation to it on the one hand, and to you on the other, in such a way as to make your relation to it correspond to my relation to it. In particular, *not only are we mutually aware of "it," we are mutually aware of this mutual awareness*. As will be seen in later chapters, many human-specific semiotic processes have as their roots and fruits intersubjective relations: on the one hand, semiosis presumes that signer and interpreter, qua self and alter, already stand in intersubjective relation to a range of objects, on the other hand, semiosis creates these very intersubjective relations (or at least the semblance of them). For example, one and the same utterance may have a topic or "old information" (often the subject of the sentence, say, *my son*) and a focus, or "new information" (often the predicate of the sentence, say, *just had his second birthday*). Loosely speaking, just as the topic was already intersubjectively known before the utterance, the focus will be intersubjectively known after the utterance. Crucially, such a process is true not only of linguistic communication. To return to our example of joint-attention, having drawn your attention to some entity, I may now draw your attention to some feature of that entity. As will be shown, semiosis builds such intersubjective assumptions by building on such intersubjective assumptions, which themselves constitute a key part of many semiotic ontologies.

As was introduced in chapter 2, and as will be discussed at length in chapter 4, the constituents of so-called material culture are semiotic processes. For example, an *affordance* is a semiotic process whose sign is a natural feature, whose object is a purchase, and whose key interpretant is an action that heeds that feature or an instrument that incorporates that feature (insofar as the feature "provides purchase"). For example, walking carefully over a frozen pond (as an action) is an interpretant of the purchase provided by ice (as an affordance) insofar as such a form of movement heeds the slipperiness of ice. An *instrument* is a semiotic process whose sign is an artificed entity, whose object is a function, and whose key interpretant is an action that wields that entity or another instrument that incorporates that entity (inso-far as it "serves a function"). For example, a knife (as an instrument) is an interpretant of the purchase provided by steel (as another instrument) insofar as such a tool incorporates the hardness and sharpness of steel. In this way, affordances, instruments, and actions can be the signs and interpretants of each other.

The *commodity* may be understood as a semiotic process whose sign is a use-value, whose object is a value, and whose interpretant is an exchange value (Kockelman 2006a; Marx 1967 [1867]). In particular, borrowing terms from classical political economy, anything that can be used or consumed by humans in some

way may be called a use-value (e.g., a loaf of bread, a jug of wine, two machetes), any use-value of a given quantity and unit may be exchanged for another use-value of a given quantity and unit, which may be called its *exchange-value* (e.g., a loaf of bread may be exchanged for three sticks of butter, a leg of lamb, or 100 sheets of paper). The fact that such radically different things as machetes, bread, butter, lamb, and paper can be proportionally equated in exchange is evidence that these things have different quantities of a common substance, which may be called *value* (for example, the intensity of desire for, or the amount of labor in, a use-value). Finally, anything that has both use-value and value (where the latter is expressed in its exchange-value) is a *commodity*. To phrase all this in a semiotic idiom, if the object of a sign is that to which all interpretants of the sign correspondingly relate (see below), then the value of a use-value is that to which all exchange-values of the use-value *collaterally* relate.

Given that a use-value can be any sort of kind, or semiotic process more generally (such as an instrument, affordance, or action), as well as any component of a semiotic process (such as a sign, object, or interpretant), a commodity is thus a *meta-semiotic process*. That is, the object-component of an embedding semiotic process is itself an embedded semiotic process. As we saw in chapter 2, the fact that any semiotic process can be parasitically embedded in another semiotic process, where the object of the embedding semiotic process (value) trumps the object of the embedded semiotic process (say, the function of an instrument, or the purpose of an action, or the status of a role), has profound consequences for sociogenesis.

Finally, to be suggestive, the *oedipal triangle* may be framed as a semiotic process. In particular, the boy comes to stand in relation to his mother in a manner that corresponds to, and is caused by, the way the father stands in relation to the mother. Here the sign is the father's directed desire (as embodied, say, in the direction and tumescence of his penis), the object is the mother (as a possible destination of this directed desire), and the interpretant is the change in the direction of the boy's desire (and, in particular, the ways in which this is subsequently evinced and embodied).

Notice from these examples that signs can be eye directions, pointing gestures, controlled behaviors, utterances, natural features, artificed entities, use-values, and bodily processes. Objects can be the foci of attention, purposes, propositions, purchases, functions, values, and "objects of desire." And interpretants can be changes in attention, reactions, other utterances, instruments, actions that heed and wield, exchange-values, and embodied dispositions. (See Table 3.2.) Notice that very few of these interpretants are "in the minds" of the interpreters; yet, all of these semiotic processes embody properties normally associated with mental entities, including attention, desire, purpose, propositionality, thoughts, values, and goals. Notice that very few of these signs are addressed to the interpreters (in the sense of purposely expressed for the sake of their interpretants), so that most semiotic processes (such as wielding an instrument) are not intentionally communicative. And notice, as per our discussion of framing in chapter 2, that the interpretant component of

TABLE 3.2

Examples of Semiotic Processes

Semiotic Process	Sign	Object	Interpretant
Joint-Attention	Gesture That Directs Attention	Object Directed To	Change in Attention
Interaction	Question	Proposition (and Purpose)	Answer
Affordance	Natural Feature	Purchase	Action That Heeds Feature for Sake of Purchase
Instrument	Artificed Entity	Function	Action That Wields Entity for Sake of Function
Action	Controlled Behavior	Purpose	Another's Reaction
Intersubjectivity	Self	Other	Alter
Commodity	Use-Value	Value	Exchange-Value
Oedipal Triangle	Sign of Directed Desire	Direction of Desire	Change in Direction of Desire

each of these semiotic processes may itself be the sign-component of an incipient semiotic process, and, hence, the threefold relationality may continue indefinitely.

Reciprocally, the sign-component of one semiotic process is usually itself the interpretant-component of a prior semiotic process, and thus not only a relatively direct sign of its object proper, but also a relatively indirect sign of the sign-object relation that gave rise to it. In this way, semiosis—when properly understood as a relation between relations involving three components—is always already meta-semiosis. And, hence, the need to theorize a "meta-level" (or "n + 1^{th} order") is, in part, a symptom of having improperly theorized an "object level" (or n^{th} order). In particular, most theories that strongly rely on such a level usually forget to theorize interpretants along with signs and objects, and so they keep reaching up for a meta-level to make up for their oversight. To be sure, some signs are expressly meta-signs in that their direct objects are other signs (or semiotic processes more generally); however, most signs are potentially meta-signs in that their indirect objects may include any component, or relation between components, of other semiotic processes.

Semiosis, then, involves a relation between two relations—a relation, that is, between the relation between an object and a sign and the relation between an interpretant and an object where the second relation arises because of the first relation. In other words, meaning must be framed not in terms of a single relation (of standing for), but in terms of a *temporally unfolding* relation (of correspondence) between two relations (of standing for). Such an understanding of meaning maximally contrasts with the stereotypic definition of a sign, say, the Saussurean pairing of a signifier and a signified (1983 [1916]), whether understood as internally articulated (a pairing between a sound image and a concept) or externally articulated (a pairing between a word and a thing).[2]

While many theorists take semiotic objects to be relatively "objective" (things such as oxen and trees), these examples show that many objects are relatively

intersubjective (a shared perspective, turning on correspondence, in regard to a seemingly intangible entity, such as a function, value, or purpose). An object, then, can be whatever a signer and interpreter can correspondingly stand in relation to. It need not be continuously present to the senses, taking up volume in space, detachable from context, conceptually mediated, or "objective" in any other sense of the word. And while many theorists take interpretants—if they consider them at all—to be relatively "subjective" (say, a thought in the mind of an addressee), these examples show that, within a particular framing, most interpretants are as objective as signs.

It may be argued, then, that the typical focus on sign-object relations (or "signifiers" and "signifieds"), at the expense of sign-interpretant relations, and this concomitant understanding of objects as "objective" and interpretants as "subjective"—and, hence, assimilating meaning to mind rather than grounding mind in meaning—is the fatal flaw of twentieth-century theories of meaning (Kockelman 2005). These claims will be further fleshed out in what follows.

QUALI-SIGN, SIN-SIGN, LEGI-SIGN; REPLICA, SINGULARITY; *TELOS*, FAILURE

Peirce theorized three kinds of sign modalities (1998a [1903]). As used here, a quali-sign is a quality that could possibly be paired with an object. That is, any quality that is accessible to a given semiotic agent's sensorium—and, hence, could be used to stand for something else (to this agent). A *sin-sign* is a quality that is actually paired with an object (in some semiotic event). Sometimes these are referred to as *tokens*. And a *legi-sign* is a type of quality that must necessarily or obligatorily be paired with a type of object (across all semiotic events, within some semiotic community, and given some particular ontology). Sometimes these are referred to as *types*. (See Table 3.1 [row 2].)

For example, in the case of utterances, a quali-sign is a potential cry (say, whatever is conceivably utterable by a human voice and audible to a human ear); a sin-sign is an actual cry (say, the interjection *ouch* uttered at a particular time and place); and a legi-sign is a type of cry (say, the interjection *ouch* in the abstract or what every token of *ouch* has in common as a phonological type).[3]

Any sin-sign that is a token of a legi-sign as a type may be called a *replica*. Replicas, then, are just run-of-the-mill sin-signs: any utterance of the word *ouch*. And, in keeping within this Peircean framework, we might call any unreplicable or unprecedented sin-sign a *singularity,* that is, any sin-sign that is not a token of a type. Singularities, then, are one-of-a-kind sin-signs: Nixon's resignation speech (in the case of speech acts) and even the gun used to kill Lincoln (in the case of instruments). Crucially, just like the distinction between quali-, sin-, and legi-signs, the distinction between replicated and singular signs is dependent on the ontology of the agent making the distinction and sensitive to the ways a semiotic process is being framed. As will be shown, such divisions can be drawn in different places, subject to more or less strain.

Since most sign events involve a contingent multiplicity of meaningfully interdependent signs (sometimes called "context"), any sign event, or meaningful experience more generally, is a singularity (even if one or more focal signs within this event are framed as replicas). And thus, while semiosis is stereotypically considered a deductive process, in which one gets the meaning of a token (qua replica) through an abstract type or decodes a "message" (qua sign token) with a "code" (qua pairing of sign type and object type), this is not so. Rather, the fact that singularities are so common means that much of semiosis turns on nondeductive processes, themselves grounded in ontological assumptions: one gets the meaning of a type through a token (often via inductive processes) or one gets the meaning of one token through other co-occurring tokens, perhaps only later abstracting to a type (often via abductive processes). Recall, for example, our discussion of non-natural meaning and inference in chapter 2 and our discussion of ontological transformations in chapter 1. These points are so important that section 6 and chapter 5 will treat them at length.

Finally, what is so important about types is not so much that tokens must conform to them but that tokens may fail to conform to them (Colapietro 1989). On the one hand, then, types usually imply something akin to a *telos* (if only natural selection, qua sieving and serendipity), indicating that some selective process may be at work, which inaugurated the type in the first place, or enabled its spread and stabilization, such that it could become normatively obligatory or causally necessary (relatively speaking). On the other hand, failure is the flip side of function: a *telos* implies that such an end, or selected outcome, may not be met, from reasons ranging from eventive contingency to conscious strategy. As was stressed in chapter 2, such parasites are thus the flip side, and perhaps more honest face, of semiotic processes: each needs to be understood in terms of the other. In particular, in light of chapter 2, the parasite is usually best understood not as a relation to a relation (Serres 1997) but rather as a relation to a relation between relations.

PEIRCE, SAUSSURE; MEDIA, ONTOLOGY

Crucially, these notions of quali-, sin- (token), and legi- (type), as well as the related notions of singularities and replicas, not only apply to the sign-components of semiotic processes, but they also apply to the object- and interpretant-components of semiotic processes. In some sense, this follows from semiotic framing: for example, what is an interpretant-component of a prior semiotic process is usually the sign-component of a subsequent semiotic process, and so the categories that apply to one carry over to the other. Moreover, with certain caveats, these notions also apply to the relations between objects and signs (as well as the relations between signs and interpretants and between interpretants and objects), and they apply to the relations between such relations and, hence, to semiotic processes more generally.

For example, while Saussure had no principled distinction between token and type, his distinction between *langue* and *parole* maps onto something similar. In

particular, from the standpoint of *langue* (or "structure"), Saussure's signifiers and signifieds map onto legi-signs and legi-objects, or sound images and concepts, respectively. And, from the standpoint of *parole* (or "practice"), his signifiers and signifieds map onto sign-tokens and object-tokens, or words and referents, respectively.

Indeed, just as there are legi-signs (say, the phonological form of a word, abstracted across all instances of usage), there are sin-objects (say, the actual referent of a word, on some particular occasion of usage). Just as we can investigate types of sign-object relations (say, the grammar and lexicon of a language), we can investigate tokens of interpretant-sign relations (the relation between one's actual utterance and another's immediate response, and thus discursive interaction). And just as we can focus on semiotic processes as replicas (qua actual tokens of obligatory, necessary, or at least relatively stabilized types), we can focus on semiotic processes as singularities (qua unprecedented, non-normative, or irreproducible tokens). In short, we can focus on tokens that either instantiate or undermine such types and on the repercussions this has on the semiotic agents who express and interpret them as well as on the semiotic ontologies they hold (and usually hold dear).

In short, what we said about channels in chapter 2 applies equally to codes and should itself evoke Humboldt's insights: *a finite domain of constraints leads to an infinite range of configurations; and any such configuration can both instantiate and undermine the set of constraints.*

More generally, and to return to our discussion of significance and selection from chapter 2, if a *quali-sign* is whatever could be sensed by a semiotic agent (and thus possibly stand for an object to that agent), a *quali-interpretant* is whatever could be instigated by a semiotic agent (and, hence, be created by a sign inso-far as it stands for an object). And a *quali-object* is whatever could organize the quali-signs (or sensations) and quali-interpretants (or instigations) of a semiotic agent: whatever could be a significant feature in the context of its selecting interests. From this standpoint, a key function of *media* in the narrow sense (from telescopes and guns to gloves and sunglasses, from telephones and Internets to calculators and computers) is precisely to extend (as well as diminish, buffer, and mask) the sensory and instigatory capabilities of semiotic agents (as well as their communicative and cognitive abilities more generally). In this way, earplugs, blindfolds, wetsuits, skateboards, camouflage, and handcuffs are media as much as gramophones, film, and typewriters. They transform the quali-signs and quali-interpretants of semiotic agents and, hence, the quali-objects of semiotic agents—and, hence, the semiotic agents per se, insofar as the features of such objects are so tightly coupled to the interests of such agents. This implies that there are *quali-agents* as well as sin-agents and legi-agents and, hence, singular and replicated agents as well.

We might then reframe our use of the word *ontology,* in comparison to how it was used in chapter 1, to mean the objects (signs and interpretants) projected from (and generating of) Peircean semiotic processes (qua object-sign relations analyzed by

their relation to sequential unfoldings of interpretant-object relations) and Saussurian semiological structures (qua sign-object relations analyzed by their relation to virtual assemblages of other sign-object relations).[4] Anything that signifies and interprets has an ontology in this sense, whatever its degree of semiotic agency. And anything that is signified or interpreted is ontologized in this sense, whatever its degree of complicity. Finally, ontologies are concomitant with ontogenies: the latter delimit how the former develop—either as process (as the conditions and consequences of their coming-to-be) or as event (as the contexts, practices, and relations through which their being is constituted). *Ontologies, then, mediate assemblages, processes, and scales far beyond the human-specific, linguistic, or ideological* (Kockelman 2011a). And just as there are legi-ontologies (grounded in the legi-signs, legi-objects, and legi-interpretants of a semiotic community), so there are quali-ontologies, as explored in genres as diverse as science fiction and scientific theorization. This is another way of showing the constitutive relation between ontology and semiosis: semiotic processes are not only grounded in, and grounding of, ontologies (as per the arguments in chapter 1),; they are also the key signs of, and thus evidence for, ontological categories, such as what counts as an individual, kind, index, agent, or world.

OBJECTS AND OBJECTIVITY

Peirce offered a wonderful definition of the object: "that which a sign, so far as it fulfills the function of a sign, enables one who knows that sign, and knows it as a sign, to know" (quoted in Parmentier 1994:4). In chapter 2, we offered a careful definition of the features of objects in relation to the interests of agents, as mediated by signs and interpretants, on the one hand, and sensations and instigations, on the other. And in chapter 1, we focused on a particular sort of object, or a particular framing of any object, namely, the kind. Framed yet another way, the object of a sign may often be understood as that which organizes (and, as we will see, is organized by) the range of (normatively) appropriate and effective and (causally) feasible and efficacious interpretants of that sign. To return to our initial examples, in some cases (such as the tree the parent points to) objects seem relatively objective. In other cases (such as the punch that has yet to land) they seem putative or latent. And in still other cases (such as the function of an instrument or the value of an identity) they seem highly abstract or intangible.

Indeed, from the standpoint of an external observer (say, someone studying the semiotic community in question), it is often best to think of the object as a *correspondence-preserving projection* from all interpretants of a sign. (See Figure 3.2.) For example, if a cat's purr is a sign, the object of that sign is a correspondence-preserving projection from the set of behaviors (or interpretants) humans may or must do, or could and should do, in the context of a cat's purr (within some particular semiotic community): pick it up and pet it, stroke it under the chin, exclaim "oh, that's so cute!" offer a sympathetic low growl, stay seated petting it even when one needs to pee, and so on.

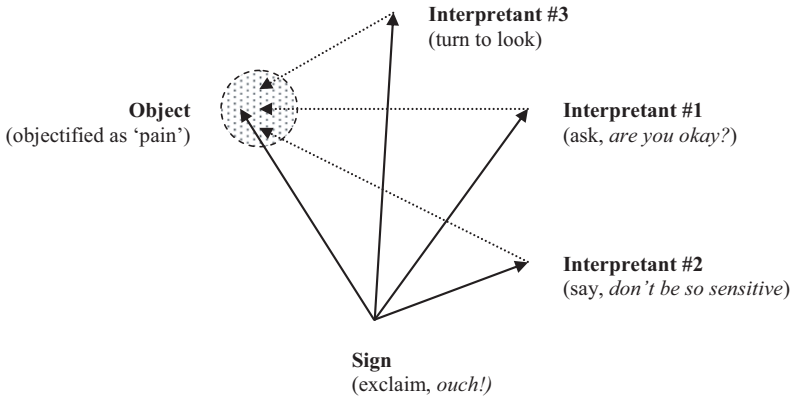

FIGURE 3.2 Object as Correspondence-Preserving Projection

Needless to say, humans tend to objectify such objects by describing them in terms of physiology (say, "the purr-organ has been activated"), emotion (say, "she must be content"), or purpose (say, "she wants me to continue petting her"). Such relatively objectifying interpretants, as will be discussed below, are also relatively representational interpretants in that they seem to refer to, and predicate qualities about, the object, or sign-object relation, in question. Concomitantly, such representational interpretants may also be true or false as well as justified by and justifying of other representations. They are a key means for articulating, or making propositionally explicit, the assumptions that constitute an ontology.

More generally, just as we may project semantic meaning or "truth-value" onto objects in this way, so too may we project "use-value" and "exchange-value" onto them. For example, one and the same instrument may not only be represented ("that's a hammer"), but also used (to pound in a nail) or exchanged (for some other good, if not a quantity of money). In certain contexts, such representing, wielding, and exchanging, interpretants can be quite quotidian; in other contexts, often taken to be indicative of "modernity," they may get systematized and regimented in well-known ways via complicated ensembles (involving semiotic processes, agents, and ontologies) that are often lumped together under the rubrics of science, technology, and economy.

In short, semiotic objects may be more or less precisely delimited, and more or less consistently exhibited, as seen by the dotted portion of Figure 3.2. They may be more or less intersubjectively shared (being more or less normatively spread, and recognized as being shared, across a population). They may be more or less continuously accessible to the senses of an agent or more or less amenable to an agent's size, shape, and strength more generally. As will be discussed in the next section, they may be more or less inferentially articulated and, concomitantly, more or less caught up in the reference-and-predication machinery of language or in the reason-giving practices of a speech community. They may be more or less coherently entangled with other use-values and exchange-values or more or less implicated

TABLE 3.3

Various Factors Determining the Relative Enclosure (or "Objectivity") of an Object

Relatively Detachable Object of Semiotic Process
Relatively Representational Interpretants of It (Semantic-Value, or "Concept")
Relatively Economic Interpretants of It (Exchange-Value, or "Price")
Relatively Instrumental Interpretants of It (Use-Value, or "Function")
Relatively Precisely Delimited
Relatively Ubiquitously Evident
Relatively Continuously Perceivable
Relatively Detachable from Context
Relatively Portable Across Contexts
Relatively "Handy" (Given Sensory and Instigatory Capacities of Agent)
Relatively Legislated (in Peircean Sense)
Relatively Emblematically Indexed
Relatively Intersubjectively Recognized
Relatively Strong or Extended Intersubject (or Generalized Other) That Recognizes It
Propensity Relatively Regimented (by Causes versus Norms)
Relatively Coherently Entangled with Other Semiotic Processes (via Relations such as Incorporation, Complementation, and Creation)
Relatively Subject to High Degrees of Practical and Theoretical Agency

in instrumental and economic practices more generally. They may be more or less entangled with, and reciprocally regimented by, other semiotic processes via relations such as incorporation, complementation, and creation. And, as will be explored in later sections, such objects may be more or less regimented by causes (versus norms) and, relatedly, their effects may be more or less independent of context or portable across contexts. In all of these (and other) interrelated ways, then, such objects may be more or less *enclosed* (Kockelman 2006a, 2007a, 2010b), and thereby seem more or less "objective" (in various stereotypic senses of this word). (See Table 3.3.)

Finally, it must be stressed that objectification (or enclosure more generally) is both a condition of possibility for, and a consequence of, high degrees of agency—and so is usually "a good" as much as "a bad." And so, while we may sometimes speak about "running the risk" of objectification, it should be remembered that we are also constantly reaping its benefits.

LEGI-OBJECTS; PROPOSITIONS, CONCEPTS; MEDIATION; INFERENTIAL RELATIONALITY; INTENTIONALITY

While the relatively intangible nature of objects should seem evident for semiotic processes such as instruments and actions, it is less evident for words such as "cat" or utterances such as "the ball is on the table," which seem to have "objects" (in the Cartesian sense) as their objects (in the semiotic sense). To understand the meaning of such signs, several more distinctions need to be made. First, recall that just as there are sin-signs (or sign-tokens) and legi-signs (or sign-types), there are also sin-objects and legi-objects. Thus, in one key framing, an assertion (or a sentence with declarative illocutionary force, say, "the cat is under the table") is a sign whose object-type relates to its object-token as a *proposition* relates to a *state of affairs*. A word (or a substitutable lexical constituent of a sentence, say, "cat" and "table") is

TABLE 3.4

The Objects of Inferentially Articulated Signs

Sign	Sentence	Word
Object (Type)	Proposition	Concept
Object (Token)	State of Affairs	Referent
Object (Set of Tokens)	Extension (World)	Category

a sign whose object-type relates to its object-token as a *concept* relates to a *referent*.[5] Finally, the set of all possible states of affairs of an assertion—or what the assertion could be used to represent—may be called an *extension* (or, more suggestively, a "world"). And the set of all possible referents of a word—or what the word could be used to refer to—may be called a *category*. (See Table 3.4.)

As is well known, many battles have been fought over the direction of influence: words influencing concepts and categories and, thus, language influencing mind and world (a species of nominalism), concepts influencing words and categories and, thus, minds influencing language and world (a species of conceptualism), categories influencing words and concepts and, thus, worlds influencing language and mind (a species of realism). For example, so-called natural kinds (a particular kind of kind) are often understood, at least in certain ontologies, as material substances whose existence and properties are relatively impervious to, or untouched by, the mediating effects of language, culture, and mind.[6] In general, as will be seen below in our discussion of determination and regimentation, contributions come from all sides—for material substances as much as for social statuses and mental states. Indeed, we have yet to bring modes of residence in the world into the picture (and nonpropositional semiotic processes more generally).

The seemingly objective nature of the object-tokens of such words (referents) and sentences (states of affairs) is itself partially grounded in the inferential articulation of their object types (concepts and propositions, respectively). In particular, there is a key species of correspondence that may be called *propositional relationality* (to be further developed in chapter 5), namely, when the object of a sign is related to (the objects of) the interpretants of that sign, and these are themselves related to each other, via inferential relations (such as material and formal deduction and induction) and via linguistic relations (such as substitution for, and combination with, the other grammatical and lexical categories in a language). And, hand in hand with this logical and linguistic mediation, there seem to be actual events that an assertion "represents," such that there can be discrepancies between the state of affairs as represented and the state of affairs per se, so that such signs can be "false," and their signers can even be "wrong" (not to mention "insincere"), which are very particular kinds of failure.

In short, as will be further developed in chapter 5, sentences and words have the property of *aboutness* that characterizes intentional phenomena more generally—not only "speech acts" such as assertions and promises, but also "mental states" such as beliefs and intentions. While all signs have a property of directedness by

definition (i.e., they stand for objects or have significance), and while most signs have an ability to fail (insofar as they were selected), signs whose objects are propositions (and concepts) have received extensive characterization—for their objects seem to be "of the world" in a very particular way, such that metaphysical worries about language-mind-world mediation can flourish. As will be shown, many such worries often turn out to be misplaced as soon as one starts to focus on sign-interpretant relations as much as on sign-object relations (and thus inference as much as representation and coherence as much as signification), and on residence in the world as much as on representations of the world (and thus on modes of meaning that are as embodied and embedded as they are articulated and enminded).

DETERMINATION AND REGIMENTATION; OBVIATING THE DISTINCTION BETWEEN CAUSES AND NORMS

It is often very difficult to say which component of a semiotic process (sign, object, or interpretant) *determines* the others. In a certain empirical sense, we may know of objects only by way of signs and interpretants (certainly in the public framing of semiotic processes emphasized above). For example, in the case of semiotic processes that are instruments, we may stereotypically understand the function of a hammer by reference to the action of the agent who wields it (and the subsequent effect this has on the world) as well as by reference to the hammer itself (as an artificed entity, whose form more or less iconically relates to its function). However, it is the material properties of the sign component (e.g., an assemblage of wood and steel) that further determine what actions could wield it. And it is the material properties of the sign components of other complementary instruments in an environment that further determine such actions: to use a hammer to pound in nails, one needs something equally hard (such as nails) and something somewhat softer (such as wood). Furthermore, the judgments of distributed actors, themselves committed to particular ontologies, who are possible witnesses to one's action, may also determine what one does with a hammer: while it might be (causally) feasible to use a hammer to play pool, it would not be (normatively) appropriate. And these judgments as to the proper function of a hammer might themselves be determined by other judgments as to its proper use-value, exchange-value, or semantic-value, which may themselves be backed up by powerful institutions and grounded in pervasive infrastructures that help generate, disseminate, and stabilize such judgments and actions. Note, then, that all of these latter constraints can be as important in determining the function, as limiting or enabling, as the purposes of the original actors themselves—those who created such instruments, whatever their ends.

In short, while it may be the range of interpretants that empirically determine the function (for some observer), it is such *modes of regimentation* that determine the range of interpretants. And these modes may themselves involve other semiotic processes, related via modalities of indexical and inferential coherence at different degrees of remove (such as incorporation, complementation, and creation), that

are as embedded and embodied as they are articulated and enminded. For these reasons, it is sometimes useful to talk about the legi-functions of instruments (as typically regimented, such as by norms or causes), their sin-functions (as actual usages, be these replicas or singularities), and even their quali-functions (the possible, permissible, or even imaginable uses of a given instrument in a particular context or a given environment).

Given all this complexity, and as a convenient shorthand, it is sometimes tempting to say that, relatively speaking, some semiotic processes are regimented by permission and obligation (or "norms" and, more generally, thirdness), whereas some semiotic processes are regimented by possibility and necessity (or "causes" and, more generally, secondness).[7] In the first case, a given semiotic process is more or less appropriate and effective in a given context (depending on who is watching as mediated by normative practices, which are themselves historically contingent and community-specific). In the second case, a given semiotic process is more or less feasible and efficacious in a given context (regardless of who is watching as mediated by causal processes that seem relatively timeless and general).

For example, note that the ground of many instruments (as the relation between their form and function, qua sign-object relation) may be just as "motivated" as it is "arbitrary." Thus, whether or not an interpretant of such an instrument is appropriate and effective (as regimented by norms) is partially determined by whether it is feasible and efficacious (as regimented by causes). As we saw in chapter 2, while one *can* use a screwdriver as a knife, it is less feasible to use a screwdriver as a hammer; and, conversely, while one *may* use scissors at a ribbon-cutting ceremony, it is less appropriate to use a switchblade. (To be sure, not all instruments are regimented equally: tire spikes are to "no entry" signs what causes are to norms.) That is, instruments, insofar as they exist at the boundary between the arbitrary and the motivated, or the normative and the causal, can be inappropriately wielded (normatively speaking) and still be causally efficacious, and they can be feasibly wielded (causally speaking) and still be normatively ineffective.

But, as this example intimates, *such a distinction dissolves as soon as one makes it*. For example, given our discussion in chapter 2 of the complex enchaining of relations between relations (and related notions such as incorporation, complementation, and creation), either of these modes of regimentation may itself be grounded in (mediated by, entangled with) the other at various degrees of remove. In part, this is because causes may mediate norms at various degrees of remove. For example, even the most "arbitrary" of signs may ultimately be "motivated" when framed in terms of selectional processes occurring on long time scales. In part, this is because norms may indirectly mediate causes. For example, while infrastructure may regiment behavior when nobody is watching, it is often built while someone was watching (if not to help someone watch, or stop someone from watching). In part, it is because human actors are, in some sense, always watching themselves (even when no one else is watching). In particular, we reflexively sanction our own behavior in light of the imagined responses of others—be these others gravitational fields and chemical

reactions or fathers and gods. In part, it is because where we draw the line between cause and norm is itself often grounded in norms (as well as causes). In part, it is because thirdness encompasses much more than human-specific modes of language, culture, and mind. As we saw in chapter 2, for example, there is significance and selection wherever there is life, however humble, and so many, perhaps most, of the most seemingly "natural" processes are grounded in meaning. And in part, it is because every semiotic process is potentially subject to both forms of regimentation, depending on the frame at issue and, hence, the scale of purview. For example, the meaningfulness of any utterance is grounded in processes involving selection and significance (not to mention sieving and serendipity) that unfold on interactional, historical, and phylogenetic time scales. And so what seems fixed, permanent, and independent in one frame, may seem fluid, fleeting, and dependent in another.

When we speak then of regimentation by norms (or thirdness) versus regimentation by causes (or secondness), these should really be understood as relative notions—or poles of a continuum rather than positions in an opposition. And, indeed, even this characterization is optimistic: in some sense, such terms are but admissions of ignorance as to the actual micropractices and macroprocesses that are involved in the genesis, spread, stabilization, and maintenance of semiotic processes. As intimated above, to really handle the conditions and consequences of action, we need to account for the modes of coherence that organize not only residence in the world (chapter 4) and representations of the world (chapter 5), but also the agents, persons, subjects, and selves that reside and represent (chapter 6). For the moment, however, we may sometimes use the distinction between norms and causes, and the distinction between thirdness and secondness more generally, as conceptual shortcuts—so long as we realize that, loosely speaking, there is a lot of firstness, or *ontological wiggle room*, in where we frame the distinction between secondness and thirdness.[8]

REGIMENTATION AS SELECTION

Finally, and perhaps most importantly for what follows, there is one key reason that the distinction between causes and norms is so easily obviated. And this reason turns on the temporality of action as much as the embeddedness of agency. On the one hand, every action more or less conforms to context (insofar as it is feasible and appropriate, and only in certain respects); on the other hand, every action more or less transforms context (insofar as it is efficacious and effective, and only in certain respects). Just as every action has as its roots a normative and causal context (that was itself the fruits of prior actions), every action has as its fruits a normative and causal context (that will itself be the roots of subsequent actions). And thus, however strongly or weakly a context normatively and causally regiments our actions, it could always be otherwise (more or less) by means of our actions.

In particular, for human agents on interactional time scales (and probably for a wide range of nonhuman agents as well), *this mode of regimentation is a key form*

of selection (and sieving more generally): our semiotic processes unfold in both conscious and unconscious, enminded and embodied conformity to (and transformation of) such an embedding context. Just as we can often anticipate, or commit to, the effects of our behaviors (as causes), we can anticipate the interpretants of our behaviors (as signs). In other words, semiotic agents can often take into account, with more or less accuracy, the reactions and responses of others to their semiotic processes (be these others people or things or anything outside or in-between), and thereby shape those semiotic processes accordingly, and thereby conform to the assumptions that constitute ontologies, and the kinds that populate them, at the same time that they play a role in their transformation. As we will seen in sections 5 and 6, this is a way of generalizing Mead's generalized other.

GROUNDS; ICONS, INDICES, SYMBOLS; REGIMENTATION REVISITED

The relation between signs and objects is fundamental, and will be referred to here as the "ground" (compare Peirce 1992a [1868]; and see Peirce 1998a [1903]). In the case of relatively iconic signs, this relation is based in similarity of qualities (such as shape, size, color, or texture). Examples include portraits and diagrams. In the case of relatively indexical signs, this relation is based in spatiotemporal contiguity or causal connection. Examples include exclamations such as "ouch" and symptoms such as fevers. And in the case of relatively *symbolic* signs, this relation is arbitrary (meaning neither iconic nor indexical) and is usually thought to reside in "convention" (or norms more generally). Examples include words such as "boy" and "run." Notice, then, that the same object (loosely speaking) may be stood for by a symbol (say, the word *dog*), an index (say, pointing to a dog), or an icon (say, a picture of a dog). When Saussure speaks of the "arbitrary" and the "motivated" (1983 [1916]), he is usually describing semiotic processes whose sign-object relations are relatively symbolic versus relatively iconic or indexical (such as onomatopoeia and interjections, respectively). See (Table 3.1 [row 3].)

It should be stressed that most semiotic processes partake of each kind of relation to some degree (as used by interpreters to infer the objects of signs, if not by signers to indicate them). It should also be stressed that there are potentially an infinite number of ways any two entities, qua sign and object, could be related by qualities, contiguities, or conventions. And, thus, which possible quality (contiguity or convention) happens to be foregrounded by a signer or interpreter when relating an object to a sign may itself be grounded in convention. By crossing Peirce's categories, then, we might, therefore, say that there are legi-grounds (say, typical relations between a sign and an object, as recognized by a given semiotic community), sin-grounds (actual relations used by signers, or attended to by interpreters, in a given semiotic event), and quali-grounds (possible grounds—be they iconic, indexical, or symbolic—that might be found in, projected on, or used to establish a given sign-object relation). Thus, we may repeat the classic (and, as we will see below, relatively simple-minded) relativist mantra: where we draw the line between

the iconic-indexical and the symbolic (as well as where we draw the line between the iconic and the indexical-symbolic) is itself often grounded in the symbolic.

As noted above, in our example of the function of instruments, there is an intimate relation between grounds (as the relation between a sign and object) and regimentation (as that which maintains such a relation). More generally, there is a tight coupling between the qualities, contiguities, and conventions an interpreter uses to figure out the object of a sign (or a signer uses to draw an interpreter's attention to an object) and the various factors that contribute to the creation, spread, and stabilization of semiotic processes (qua sign-object-interpretant relations). Indeed, the very same set of embedded, enminded, and embodied processes that allowed us to heavily qualify the distinction between norms and causes (as two kinds of regimentation) also allows us to heavily qualify the distinction between icons, indices, and symbols. In some sense, the distinction between the motivated and the arbitrary is as necessary to obviate as the distinction between causes and norms, and for all the same reasons.

That said, while it is tempting to resort to the usual relativist mantras (where we draw the line between nature and convention is grounded in convention, or where we draw the line between the motivated and the arbitrary is grounded in the arbitrary, or where we draw the line between causes and norms is grounded in norms, or, to return to the concerns of chapter 2, where we draw the line between intermediaries and mediators is grounded in mediators, or, most generally, where we draw the line between seconds and thirds is grounded in thirds), these do not really hold. In part, this is because they can easily be reversed: where we draw the line between nature and culture is itself grounded in nature. And, in part, it is because the more important point is to obviate the distinctions. Instead of reifying normative regimentation and causal regimentation, or arbitrary grounds and motivated grounds, or thirds and seconds, more generally, let us focus instead on two other kinds of processes. First, as will be undertaken in subsequent chapters, we need to theorize the actual modes of coherence (and incoherence) that may organize (and disrupt) residence in the world and representations of the world as well as those who reside and represent. And second, as was undertaken in chapter 1, and will be explored more below, we need to theorize the semiotic ontologies and modes of semiotic framing that both license and are licensed by such analytic distinctions.

SEMIOTIC ONTOLOGIES REFRAMED

In one framing, every interpretant of a sign-object relation is itself a sign of the interpreter's understanding, however tacit, of the relation between the sign and the object.[9] In particular, for a sign to give rise to an interpretant insofar as it stands for an object requires that the interpreter (and often the signer) be able to relate the sign to the object in some way. And, as just described, Peirce theorized three kinds of sign-object relations: iconicity (when sign and object share a quality), indexicality (when sign and object are contiguous or causally connected with each other), and symbolism (when sign and object are related by something like convention). In

short, every interpretant evinces the interpreter's understanding of such interrelations and, hence, is a (relatively indirect) sign of the interpreter's semiotic ontology.

More broadly, for an interpreter to interpret (or a signer to signify) requires that the interpreter (and often the signer) has a set of "assumptions" regarding: (1) the qualities entities have; (2) the contiguities qualifiable entities have with each other; and (3) the conventional entities signers and interpreters share (i.e., signs, themselves ensembles of qualifiable contiguities) for pointing to (contiguity) and providing information about (quality) other entities (i.e., objects), which themselves may be any component of a semiotic process or any relation between such components. Such assumptions are both condition for and consequence of semiotic processes. And they constitute a key part of any agent's ontology.

Not only, then, are the entities that play the role of signs, objects, and interpretants in our semiotic processes fundamental constituents of our ontologies, so too are the underlying assumptions that allow semiotic agents to relate such entities to each other (i.e., qualities, contiguities, and conventions). This is another way of showing how the assumptions that constitute semiotic ontologies may be implicitly embodied in semiotic processes as much as explicitly articulated through semiotic processes. And it is another way of showing how ontologies license interpretations as much as interpretations license ontologies.

FETISHIZATION, REIFICATION; STRAIN, LEAKAGE

In the Baconian tradition alluded to at the beginning of this chapter, itself most famously developed by Marx (1967 [1867]), fetishism and reification are concomitant processes that may initially be characterized in terms of the systematic misinterpretation of the conditions for, and the consequences of, meaning (which includes value in the more narrow economic sense, as noted at the beginning of chapter 2). This misinterpretation is itself conditioned, in part, by a discrepancy between the experiential horizons of semiotic agents and the existential worldlines of semiotic processes. And this misrecognition is itself conditioning of a range of effects that may easily be described in terms of the foregoing categories: (1) treating a natural (or happenstance) sign as a non-natural (or "intentional") sign, or vice versa, (2) treating a nonselected (or merely sieved) process as a selected process or treating natural selection as intentional or artificial selection, or vice versa, (3) treating an immediate object (itself caused by the sign) as a dynamic object (itself causal of the sign), or vice versa, (4) treating an arbitrary ground as a motivated ground, or vice versa, (5) treating relatively incoherent semiotic processes as relatively coherent semiotic processes, or vice versa, (6) treating a second (or intermediary) as a third (or mediator), or vice versa, (7) treating causes as norms, or vice versa, (8) treating a signer or interpreter as having too much or too little agency over the semiotic process in question (a point we'll return to in section 5).

As mentioned above, given the frequent difficulty a scholar or semiotic community may have determining the causes of, and the reasons for, a particular semiotic

process, it is tempting to take a relatively nonrealist stance and argue that where the line is drawn between "nature" and "culture" (or "objects" and "subjects") is itself often grounded in culture (or subjects). Realists, on the other hand, might argue that the line cannot be drawn just anywhere—nature fights back as much as culture, objects as much as subjects. Just as certain kinds of coherence are relatively frame-independent, certain sorts of propensities are relatively indifferent to the desires and norms of human agents. For example, whether we try to treat people as mindless automatons, or thunder booms as communicative signs, there will be "strain" (to use Brandom's (1979) suggestive term). In particular, there will be signs of this strain, or what we may call ontological leakage. (Note then that, as defined here, strain relates to leakage as kind relates to index, and so strain and leakage are themselves subject to semiotic ontologies, framings and so forth.) From such a relatively realist stance, another sense of fetishization (and reification) is that which elides signs of strain, while enabling the treatment of seconds as thirds (or thirds as seconds).

In any case, note how all these issues are fundamentally mediated by ontologies. In particular, for something to be a sign of strain there must be at least two ontologies involved, one belonging to the actor (itself specifying where to draw the divide between nature and culture, objects and subjects, things and people, secondness and thirdness, etc.) and one belonging to the analyst (itself not only specifying where the actor draws the divide, but also where the divide should really be drawn). In this way, claims regarding fetishization or reification are closely related to intensionality (notice the spelling), a notion that will be analyzed in depth in chapter 5: one's ability not only to represent another's representation (for example, by having a belief about another's belief), but also to represent how their representation is wrong (or incoherent, more generally), why this is so, and what are its ramifications (such as bad science, faulty technology, superstitious behavior, human error, and ontological leakage, more generally). For present purposes, note that an analyst may frame some event as a sign of strain insofar as it indicates to them that the actor's ontology is at odds with the world (which is itself in conformity with their own ontology). Crucially, as summarized in chapter 1, and as will be further developed in section 6, interpretations can transform ontologies just as much as ontologies can transform interpretations—transformations that are often driven by events that may be framed as signs of strain or ontological leakage (for example, signs that some ontology is at odds with a world). This means that notions such as fetishization and reification, just like the notions of natural kinds and social constructions on which they depend, are usually far too simple-minded to understand anything.

INTERPRETANTS; AFFECTIVE, ENERGETIC, REPRESENTATIONAL, ULTIMATE; BELIEF; HABITUS; EMOTION

As inspired by Peirce (1998 [1907]), there are three basic types of interpretants. An affective interpretant is a change in one's bodily state. It can range from an increase in metabolism to a blush, from a feeling of pain to a feeling of being off-balance,

from sweating to an erection. This change in bodily state is itself a sign that is potentially perceptible to the body's owner, or to others who can perceive the owner's body. And, as signs themselves, these interpretants may lead to subsequent, and perhaps more developed, interpretants.

Energetic interpretants involve effort and individual causality; they do not necessarily involve purpose, intention, or planning. For example, flinching at the sound of a gun is an energetic interpretant, as is craning one's neck to see what made a sound, as is saluting a superior when she walks by, as is wielding an instrument (say, pounding in a nail with a hammer), as is heeding an affordance (say, tiptoeing on a creaky floor).

And *representational interpretants* are signs with propositional content, such as an assertion (or explicit speech act, more generally). They may be used to make explicit the assumptions that constitute one's ontology. Stereotypically, such representations can be true or false, exhibit functions such as reference and predication, and constitute the premises and conclusions of inferences more generally. Thus, to describe someone's movement as "he raised his hand" is to offer an interpretant of such a controlled behavior (qua sign) insofar as it has a purpose (qua object). And, hence, while such representations are signs (that may be subsequently interpreted), they are also interpretants (of prior signs). This again foregrounds our claim that even non-meta-linguistic linguistic signs (e.g., assertions) are already meta-semiotic, having semiotic processes such as actions, roles, and instruments (as well as their interrelations) as their objects.

Finally, it should be emphasized that the same sign can lead to different kinds of interpretants—sometimes simultaneously and sometimes sequentially. For example, upon being exposed to a violent image, one may blush (affective interpretant), avert one's gaze (energetic interpretant), or say "that shocks me" (representational interpretant). (See Table 3.1 [row 4].)

Crucially, framing may be involved in determining where affective interpretants end and energetic interpretants begin or where energetic interpretants end and representational interpretants begin. In other words, the boundary between different kinds of interpretants (affective, energetic, representational) is like the boundary between norms and causes discussed above: it may be drawn in different places, subject to more or less strain and leakage, as differentially framed by different kinds of actors depending on their semiotic ontologies. Stereotypically, though, as one moves from affective interpretants to representational interpretants, the interpreter has, or is at least accorded, more agency over the components of the semiotic process in question, more flexibility in determining them, and more accountability for having determined them. We will return to these points in section 5.

Finally, each of these three types of interpretants may be paired with a slightly more abstract double, known as an ultimate interpretant (compare Peirce 1998 [1907]). In particular, an ultimate affective interpretant is not a change in bodily state per se, but rather a disposition (or propensity) to have one's bodily state change—and, hence, is a disposition to express affective interpretants (of a particular type).

Such an interpretant, then, is not itself a sign but is only evinced in a pattern of behavior (as the exercise of that disposition or a playing out of that propensity). These correspond, in certain respects, to vernacular notions, such as "mood," and expert categories, such as agoraphobia. Analogously, an *ultimate energetic interpretant* is a disposition to express energetic interpretants (of a particular type). In short, it is a disposition to behave in certain ways—as evinced in purposeful and nonpurposeful behaviors. Mauss's (1973 [1935]) techniques of the body are good examples of this. And finally, an ultimate representational interpretant is the propositional content of a representational interpretant, plus all the propositions that may be inferred from it, when all of these propositions are embodied in a change of habit, as evinced in behavior that conforms to these propositional contents.

For example, a *belief* is the quintessential ultimate representational interpretant: in being committed to a proposition (i.e., "holding a belief"), one is also more or less committed to any propositions that may be inferred from it (and any states of affairs such propositions may indexically relate to as cause or effect), and one's commitment to this inferentially articulated (and usually indexically embedded) set of propositions is evinced in one's behavior: what one is likely or unlikely to do or say insofar as it confirms or contradicts these propositional contents (and indexical contexts).

Notice that these ultimate interpretants are not signs in themselves: while they dispose one toward certain behaviors (affectual, energetic, representational), they are not the behaviors per se; rather, they are *dispositions to behave* in certain ways. (Or, as will be seen in the next section, if we take the standpoint of the observer, rather than of the actor, and frame them completely in semiotic terms, as a particular sort of kind, they may be understood as *(projected) propensities to signify, objectify, and interpret in particular ways.*) In this way, they are both a consequence of semiotic processes and a condition for semiotic processes. And note, then, that while they cover much of the same ground, or extension, as the notion of a "habitus" (Bourdieu 1977 [1972]), they offer a radical reframing of its origins, structure, and mechanism.

While such a sixfold typology of interpretants may seem complicated at first, it should accord with one's intuitions. Indeed, as will be elaborated in chapter 6, most *emotions* really involve a complicated bundling together of all these types of interpretants. For example, upon hearing a gunshot (as a sign), one may be suffused with adrenaline (affective interpretant); one might make a frightened facial expression (relatively nonpurposeful energetic interpretant); one may run over to look at what happened (relatively purposeful energetic interpretant); and one might say "that scared the hell out of me" (representational interpretant). Moreover, one may forever tremble at the sight of the woods (ultimate affective interpretant); one may never go into that part of the woods again (ultimate energetic interpretant); and one might forever believe that the woods are filled with dangerous men (ultimate representational interpretant). In this way, most so-called emotions may be decomposed into a bouquet of more basic and varied interpretants. And, in this way, the seemingly most private, subjective forms of experience may be reframed

in terms of their public, intersubjective effects, and they may be grounded in, and grounding of, the most far-flung or overarching assumptions of one's ontology (Kockelman 2011a).

FIRSTNESS, SECONDNESS, THIRDNESS; NATURALISM; EMBODIMENT, EMBEDDEDNESS

Putting all the foregoing ideas together, a set of threefold distinctions may be enumerated. First, any semiotic process has three components: sign, object, interpretant. There are three kinds of signs (as well as three kinds of objects and interpretants): quali-, sin-, and legi-. There are three kinds of object-sign (sign-interpretant and interpretant-object) relations, or grounds: iconicity (quality), indexicality (contiguity), and symbolism (convention). And there are three kinds of interpretants: affective, energetic, and representational (along with their ultimate variants). Finally, Peirce's categories of firstness, secondness, and thirdness (1992 [1887–1888], 1998a [1903]), while notoriously difficult to define, might be best understood as genus categories, which include the foregoing categories as species. (See Table 3.1.) In particular, firstness is to secondness is to thirdness, as sign is to object is to interpretant, as iconic is to indexical is to symbolic, as affective is to energetic is to representational. Thus, firstness relates to sense and possibility; secondness relates to force and actuality; and thirdness relates to understanding and generality. Indeed, given that thirdness presupposes secondness, and secondness presupposes firstness, Peirce's theory assumes that human-specific modes of semiosis (thirdness per se) are grounded in modes of firstness and secondness. Peirce's pragmatism, then, provides a naturalistic account of meaning—one in which semiosis is as embodied and embedded as it is enminded and articulated.

Finally, it must be emphasized that Peirce's categories themselves constitute an ontology—one we loosely hold onto, in part, because of the incredible flexibility it affords when crossed with a notion of framing and the obviations this generates, and, in part, because of the incredible reflexivity it affords insofar as it can be used to both understand and undermine its own assumptions. That said, it is only a small part of the larger story. As was shown in chapter 2, there are (at least) five other kinds of relations between relations (besides semiotic processes, or correspondence proper) that need to be taken into account—not the least of which is selection, about which Peirce had relatively little to say.

SEMIOTIC COMMUNITY; SEMIOTIC COMMONS; CULTURE

We might end this section by defining a *semiotic community* as a group of semiotic agents (often people) who, relatively speaking, have semiotic processes in common (or a shared semiotic ontology, more generally), in contrast to one or more other groups (who have other semiotic processes in common) where each of these groups is self-conscious of this contrastive commonality. (See Table 3.2 [row 5].) *Culture*,

as an ideal type (and often a projected fantasy, if not an imaginary kind, however densely enclosed as a *semiotic commons*), would then be the ensemble of semiotic processes that (relatively speaking) both evince and enable (or immediately and dynamically index) such relatively reflexive modes of group-identity and difference.

3. Social Statuses, Material Substances, and Mental States

For the Boasian Ralph Linton (1936), a status (as distinct from the individual who holds it) was a collection of rights and responsibilities attendant upon inhabiting a certain position in the social fabric. That is, the rights and responsibilities that go with being a parent or child, a husband or wife, a citizen or foreigner, a king or a subject. For example, the right to wear a crown, or the responsibility to bow. A role was any enactment of one's status. That is, the behavior that arises when one puts one's status into effect by acting on one's rights and according to one's responsibilities. For example, actually wearing a crown or taking a bow. And, while untheorized by Linton, an attitude might be understood as another's response to one's status by having perceived one's role. For example, bowing before a person who wears a crown. In particular, many attitudes are themselves statuses: upon inferring another's status (by perceiving their role), one adopts a complementary status (and its attendant roles).

In this section we return to the theory of kinds that was introduced in chapter 1 during our discussion of semiotic ontologies. We use this theory to reframe a range of relatively complicated semiotic processes that may be loosely described as social statuses, mental states, and material substances. And just as social statuses will be reframed as one sort of kind among many, roles will be reframed as one sort of index among many, and attitudes will be reframed as one sort of interpretant among many. As will be seen, what is particularly salient about all of these kinds is that they are simultaneously semiotic processes in themselves and ways of organizing relatively coherent ensembles of semiotic processes (as well as nonsemiotic processes, as it will turn out). Indeed, such kinds may be the most interesting, important, and undertheorized modes of meta-semiosis there are: a semiotic process whose object is a projected propensity to exhibit certain semiotic processes, whose sign is any such semiotic process or any one of its components (insofar as it indexes this propensity), and whose key interpretant is an inference that some individual (related to the index in question) constitutes such a kind, and thus is likely to exhibit other indices (qua semiotic processes) that would be in keeping with this projected propensity. As argued in chapter 1, such kinds (as well as such indices, individuals, inferences, and worlds) are the roots and fruits of semiotic ontologies and, thus, heavily mediate the semiotic processes of the agents who orient to them.

Finally, a key point of clarification. While kinds are taken to be fundamental, the division of kinds into social statuses, mental states, and material substances is

merely a rhetorical shortcut. These are vernacular terms, grounded in both folk and expert ontologies, that will be redefined in relatively technical ways. As will be seen, so-called mental states are just as "social" and "material" as they are status-like and substance-like; social statuses are just as "mental" and "material" as they are state-like and substance-like; and material substances are just as "social" and "mental" as they are status-like and state-like. (Or, more to the point: words such as "social," "mental," and "material" don't get you very far.) The vernacular terms are maintained because their extensions are relatively complementary and, together, cover a wide range of phenomena. Other ontologies would offer other sorts of kinds and other ways of framing these kinds of kinds. And so the important thing to foreground in what follows is the theory of kindedness (which relates kinds to indices, individuals, inferences, agents, ontologies, emblemeticity, and transformativity) rather than the taxonomy of kinds per se (which could easily be otherwise, and as the theory predicts, usually is).

ROLE, STATUS, ATTITUDE; SOCIAL RELATION

More carefully defined, we may argue that roles, statuses, and attitudes should really be understood as three components of the same semiotic process—mapping onto signs, objects, and interpretants, respectively. (See Table 3.1 [row 6].) In particular, as will be used here, a *status* is a (projected) propensity to signify, objectify, and interpret in particular ways. (Compare the definition of ultimate interpretants offered above. And note that anyone or anything that may be framed as signifying, objectifying, or interpreting may thus have a status in this sense.) A *role* (or index more generally) is any sign of this propensity, itself often a particular mode of signifying, objectifying, or interpreting.[10] And an *attitude* is another's response to, or interpretant of, a status by having perceived a role or index, itself often another status. A key social process is, therefore, a semiotic process: having perceived another's role (qua sign), I may infer their status (qua object) and thereby come to expect them (qua interpretant or attitude) to perform other roles, or exhibit other indices, that would be in keeping with that status. Loosely speaking, then, *a status (qua "identity") is propensity personified; a role or index (qua "performance") is personhood actualized; and an attitude (qua "recognition") is another's persona internalized*.

In making this move, then, we may not only understand social relations in terms of semiotic processes, we may also understand semiotic processes in terms of social relations. Recall, for example, Marx's and Aristotle's account of relations between relations from chapter 2: a relation between people is mediated by a relation between things. Such a process may be generalized: *the social relation between a signer and an interpreter is itself mediated by the semiotic relation between a sign and an interpretant (and vice versa)*. In particular, as will be generalized in section 5, our intersubjective recognition of our relevant statuses is both condition for and consequence of our ongoing interaction.

SOCIAL STATUSES AS IMAGINED AND REGIMENTED; MODALITY AND PROPENSITY

With these basic definitions in hand, several finer distinctions may be introduced and several caveats may be established. First, Linton's original definition focused on rights and responsibilities, with no indication of how these were to be regimented. For present purposes, the modes of permission and obligation that make up a status may be regimented by any number of means: while stereotypically grounded in norms (as commitments and entitlements to act in particular ways), they may also be grounded in rules (as articulated norms) or laws (as legally promulgated and politically enforced rules). Or, as per our more general definition of kinds, they may turn on projected and potentially internalized propensities to signify, objectify, and interpret in particular ways—propensities that are just as easily (and perhaps more often) imagined as grounded in causes (or "nature") rather than norms (or "culture"). And thus while statuses often exist at the intersection of meaning (signification and interpretation) and modality (commitment and entitlement), they may be imagined in other terms and regimented in other ways.

While the four classic types of status come from the *Politics* of Aristotle (husband/wife, parent/child, master/slave, human/animal), statuses are really much more varied, much more basic, and often much less objectified. For example, kinship relations involve complementary statuses: aunt/niece, father-in-law/daughter-in-law, and so forth. Positions in the division of labor are statuses: spinner, guard, nurse, waiter, etc. Positions within civil and military organizations are statuses: CEO, private, sergeant, secretary. Social categories of the more colorful kind are statuses: geek, stoner, slut, bon vivant, fair-weather friend, noob. As are social categories of the more politicized kind: male, black, Mexican, rich, gay. What Marx called the dramatis personae of economic processes (1967 [1867]:113) are also statuses: buyer and seller, creditor and debtor, broker and proxy. And Goffman's "participant roles" (1981b) are really statuses: speaker and addressee,; participant and bystander, and animator, author, and principal. Finally, as will be further developed in chapter 6, any form of possession is a status: one has rights to, and responsibilities for, the possession in question. That is, to own a home (qua use-value) or have $50.00 (qua exchange-value) is a particular kind of status (Kockelman 2007c). Note, then, that statuses may be as permanent as one's personhood (often lasting one's entire life) or as fleeting as one's authorship (sometimes lasting less than the length of a single turn at talk). And they can be achieved as much as ascribed, encouraged as much as avoided, internalized as much as projected, recognized only by the bearer or regimented by an entire world. Finally, they may be more or less objectified, or enclosed, in all the ways discussed in the last section.

Just as statuses can be quite diverse, so can the roles that seem to enact them and the indices that seem to reveal them. In particular, a role or index can be any semiotic practice and, hence, anything that one does or says, any symbol or gesture, any sign that one purposely gives out or unconsciously gives off (compare

Mead 1934; Goffman 1959). Such status-indexing signs may range from wearing a particular kind of hat in public to visiting particular shrines on holy days, from standing at a certain point in a soccer- field to sitting in a certain place at a dinner table, from deferring judgment when certain people are present to kneeling before certain kinds of icons, from evincing particular physical traits to wearing certain kinds of clothes, from expressing certain desires to espousing certain beliefs, and so on, and so forth. (Recall that such status-indexing signs need not always be expressed by, or exhibited on, the one whose status is in question: I may learn of your status by those who accompany you and that which surrounds you.) More carefully, roles—and status-indexing signs more generally—are often themselves relations between signs and interpretants or circumstances (qua eliciting context) and behaviors (qua elicited practice). Again, then, we are dealing with an inherently meta-semiotic process: It is because you express interpretant *I* in the context of sign *S* (or produce behavior *B* in circumstance *C*) that I infer you are of a certain status (and thereby come to expect you to also express interpretant *I'* in the context of *S'*, *I'* in the context of *S'*, and so on and so forth).[11] For this reason, as stressed in chapter 1, most status-indexing signs are maximally relational, context-bound, and frame-dependent, just as most statuses are minimally concrete and permanent, just as most attitudes are highly abductive and error-prone.

Finally, just as statuses are no more mysterious than any other object, and roles are no more mysterious than any other sign, attitudes are no more mysterious than any other interpretant. Hence, attitudes include affective interpretants (sweating when you infer your hitchhiker is an escaped convict), energetic interpretants (hugging an old friend after a long absence), or representational interpretants (saying, "she must be a lawyer" when describing a passerby). In particular, attitudes may themselves be ultimate interpretants and, hence, often a kind of social status or mental state (and so the process may continue indefinitely). This is a crucial point that we will return to below when we discuss performativity: from one framing, a status may be the (ultimate) interpretant of another's sign, and from another framing, a status may be the (dynamic or immediate) object indexed by a sign. Statuses, then, may usually be framed as having both roots and fruits: not only may they be both cause and effect of other events, but, more generally, they may be sign, object, or interpretant of other semiotic processes.

STATUS VERSUS PRESTIGE; ROLE VERSUS STATUS SYMBOL

It should be emphasized, then, that the definition of status being developed here is not the same as the folk-sociological understanding of status as relative prestige, qua "high status" and "low status." Moreover, the definition of role being developed here should not be confused with the folk-sociological sense of "status symbols" or "emblems of identity." The issues being addressed here are much broader in scope, and only reduce to these lay notions in certain limits. And while we are incorporating Linton's original terms (status and role), and adding a third one (attitude) as a

kind of shorthand, they have been radically redefined. Nonetheless, using the old terms runs the risk of objectifying the components. And so, as per our discussion in chapter 1, it is usually best to speak about *putative indices*, *projected propensities,* and *potential orientations* (as mediated by particular ontologies, assembled in certain framings, held by specific agents, and attributed to certain individuals). (See Table 3.5.)

KIND DEFINED; MATERIAL SUBSTANCES; PROPERTIES; INTERPRETIVE REASON

Such an inherently inferential and indexical process is applicable to more than social statuses. To return to the concerns of Francis Bacon, a *material substance* (say, gold) exhibits a range of "properties" (or substance-indexing signs more generally): it melts at a certain temperature, it reflects light of a certain wavelength, it exhibits a certain resistance when a voltage is applied, and so forth. Indeed, it is these very properties that permit us to say that it is gold. While we may not want to say that it "behaves" a certain way when in a certain "circumstance," we would certainly say that it produces certain effects (or exhibits certain indices) when subject to certain causes (or put into certain contexts). In any case, the inferential possibilities offered by material substances are similar to the inferential possibilities offered by social statuses: relatively perceptible roles or properties (or indices, qua circumstance-behavior or cause-effect relations) provide evidence for an underlying status or substance (or kind, qua projected propensity to exhibit other roles or properties).

In this wide sense, then, *a kind is a (projected) propensity for patterned being that admits of interpretive reasoning, where such reasoning is grounded in semiotic processes that turn on indexicality and inference (however large or small the world in which such a patterning persists or is ontologically projected to persist, and however large or small the world that finds or projects such more or less persistent patterns)*.

TABLE 3.5:

Some Key Constituents of Kindedness

Index	Relatively perceivable quality, set of qualities, or relations between qualities. May be more or less emblematic of particular kind. In one widespread ontology, roles are to properties what social statuses are to material substances.
Kind	Projected propensity to exhibit particular indices. Three often attributed, easily reified, and ontologically problematic kinds are social statuses, mental states, and material substances.
Individual	Whatever can exhibit indices (to an agent) and thus be a site to project kinds (by that agent). Indices can be more or less closely related to, or evinced on, the individual in question.
Agent	Whatever can perceive an index (or sense a sign) and orient to a kind (or instigate an interpretant). Itself often ontologized as an ensemble of kinds (e.g., a bundle of mental states, social statuses, and material substances).
Ontology	Set of assumptions used by agents, be they articulated and enminded or embodied and embedded, that are both condition for, and consequence of, semiotic processes involving attribution of kinds to individuals through indices.

To be sure, the processes that regiment the relation between role and status, or property and substance, may be very different—one stereotypically grounded in norms and the other stereotypically grounded in causes. And, because of this, the worlds in which such regularities persist (or are ontologized as persisting) can be smaller or larger in space-time or more or less independent of historical and geographic context. Moreover, as we saw in section 1, classic trade-offs exist between the two domains, themselves problematically conceptualized, such as reification (treating norms as causes or social statuses as material substances) and fetishization (treating causes as norms or material substances as social statuses). And there are strange entities that seem to span the domains (or sit outside of either domain). And thus, just as different semiotic ontologies license particular subkinds of any kind (e.g., fruits versus vegetables, white collar versus blue collar, beliefs versus desires, etc.), they also support different kinds of kinds per se (e.g., material substances versus social statuses versus mental states). Different individuals, communities, and species may ontologically divide and define the world in different ways. We will return to such issues in later sections. What matters for the moment are the broader parallels between social statuses (with their roles) and material substances (with their properties) and the indexical and inferential possibilities that may be simultaneously licensed by them and governing of them.

MENTAL STATES; INFERENCE AND INDEXICALITY; SUBJECTIVITY

So far the discussion has been about social statuses and material substances as particular sorts of kinds. However, with some caveats, the foregoing ideas also hold for *mental states* (or cognitive representations and affective unfoldings, as will be treated in chapters 5 and 6). For example, following our discussion of ultimate representational interpretants at the end of section 2, holding a belief can be understood as a propensity to engage in certain behaviors in certain circumstances: normative ways of speaking and acting, or signifying, objectifying, and interpreting more generally, that would be logically and causally coherent with holding a particular assumption or being committed to the existence of a certain state of affairs. And just as there are relatively indexical signs of social statuses (such as roles), there are relatively indexical signs of mental states: actually speaking and acting, or signifying, objectifying, and interpreting more generally, in ways that conform with, or provide evidence for, that belief. And finally, an attitude is just another's interpretant of one's mental state by having perceived such an index (itself often another mental state). For example, I believe that you believe it will rain, as a mental state, insofar as I have seen you act like someone who believes it will rain (say, by carrying an umbrella to work); and as a function of this assumption (as to your mental state through your index), I come to expect you to act in certain ways—and perhaps sanction your behavior, as well as draw further inferences from your behavior, as a function of those expectations (and depending on whether or not they are met). Indeed, such sanctions and inferences are often the best evidence of my own attitude toward your

mental state and, hence, would count, in one framing, as signs of my (meta-) mental state regarding your mental state or indices of my belief about your belief.

A key difference between mental states and social statuses, then, would be that, relatively speaking, mental states (e.g., beliefs, perceptions, and intentions) are inferentially articulated (their propositional contents stand in logical relation to other propositional contents) and indexically grounded (their propositional contents stand in causal relation to states of affairs). Recall, for example, the discussion of cognitive processes from chapter 2: normatively speaking, a perception is caused by a state of affairs and may justify a belief, and an intention is causal of a state of affairs may be justified by a belief. Moreover, as we will explore in depth in chapter 5, the so-called subjectivity of mental states arises from the fact that they may *fail* (normatively speaking) to be logically justified (or logically justifying), and they may fail (normatively speaking) to be indexically causal (or indexically caused). There are non-stated intentions, false beliefs, invented memories, nonveridical perceptions, unrealized plans, and so forth.

ROOTS AND FRUITS; IMPERCEPTIBLE MEDIATORS; THEORY OF MIND; SEMIOTIC STANCE

Just as social statuses (and material substances) may be the roots and fruits of other semiotic processes, so may mental states. That is, such kinds may be the (ultimate) interpretants and (dynamic) objects of signs. From a private framing, for example, any number of signs may lead to my belief that it will rain tomorrow (I hear it on TV, my farmer friend tells me, the sky has a certain color, I hear the croaking of the toads, etc.), and any number of signs may follow from my belief that it will rain tomorrow (I shut the windows, I tell your friends, I buy an umbrella, I take in the wash, etc.). And from a public framing, to interact with others is, in part, to predict fruits from roots and infer roots from fruits by way of the attribution, however tacit and however so imagined, of mental states (and social statuses and material substances). In this way, such kinds may be understood as complex modes of seemingly *imperceptible mediation* that human beings are singularly adept at tracking. In this way, so-called theory of mind is really just a particular instance of "the interpretation of signs" (through the mediation of ontologies, the framing of indices, and the projection of kinds). And, in this way, the so-called intentional stance of human beings is itself grounded in a more foundational and more encompassing *semiotic stance*. We will return to these concerns in chapter 5.

4. Relatively Emblematic Indices

Crucially, the same index (such as a role or property) may often correlate with, or be taken to stand for, many different kinds, and the same kind (such as a mental state, social status, or material substance) may often be correlated with, or taken

to be stood for by, many different indices. For this reason, it is worth theorizing a quality that may be called *emblemeticity*. Loosely speaking, an index (or sign more generally) is relatively emblematic for a given interpreting agent if, *given particular assumptions within the agent's semiotic ontology*, it constitutes a relatively good and handy ground for inferring the kind (or object) in question—such as being strongly predictive and readily perceived. For example, in the case of material substances, a relatively emblematic index is a diagnostic sign (e.g., symptoms that provide strong evidence for an illness). More generally, we have litmus tests, dipsticks, assays, and so forth. In the case of social statuses, a relatively emblematic index is a uniform (e.g., dressing as a police officer). More generally, we have trophies, certificates, varsity letters, deeds, flags, tattoos, scarlet letters, and so forth. And in the case of mental states, a relatively emblematic index is a speech act (e.g., asserting one's belief or declaring one's intention). Indeed, as we will see in chapter 5, *the so-called privateness of mental states is really no different from the privateness of social statuses*: each is known only through the indices that provide evidence for them and incontrovertibly known only when such indices are relative emblematic. In the rest of this section, four overlapping kinds of emblemeticity will be defined and compared: epistemic, deontic, relational, and phenomenological. Curiously, just as mind has often been understood as the emblematic sign of the status (or substance) human, linguistic practices and cultural patterns have often been understood as the emblematic signs of mind.

EPISTEMIC, DEONTIC, RELATIONAL, AND PHENOMENOLOGICAL EMBLEMETICITY

Epistemic emblemeticity means that, prototypically speaking, the presence of an index (or sign more generally) provides necessary and sufficient criteria for the existence of a kind (or object more generally). (See Table 3.6[(row 1].) In other words, in the interpreting agent's ontology, all individuals[12] who are instances of the kind, and only individuals who are instances of the kind, evince the index. Loosely speaking, this framing of emblemeticity takes the perspective of the observer, focusing on logical and empirical grounds for inferring and/or ascribing the kind in question. This may be the most general form of emblemeticity, applying as it does to social statuses, mental states, and material substances. Crucially, certain indices may be epistemically emblematic because they are criterial: Their presence constitutes the very definition of the kind in question (often because, in the terms of chapter 2, their objects are both dynamic and immediate). For example, while a material substance may be known to be water through a range of relatively emblematic properties (say, it is colorless, tasteless, good to drink, melts at zero degrees Celsius, boils at 100 degrees Celsius, and so forth), a chemical assay that determines that its molecular structure is H_2O is criterially emblematic. Indeed, all the other properties of water, whether relatively emblematic or not, are thought to follow from this fact (at least by those committed to a particular ontology). In this way, indices that are criterially

emblematic may establish, rather than simply reflect, the presence of a particular kind. That said, as this example should also highlight, many emblems of this sort are made, rather than found, and often through a lot of hard work. For example, most chemical assays, while seemingly as simple as "reading a meter," are actually dependent on long chains of intermediate semiotic processes (see, for example, Latour and Woolgar 1986 and Scott 2009 on inscription practices), themselves regimented by particular ontologies, interactions, and infrastructures. We will return to this tension (establish/reflect) in section 6 when we take up the related notion of transformativity, and we will return to these forms of mediation in section 5 when we take up the distribution of semiotic agency.

Deontic emblemeticity means that, prototypically speaking, all instances of a certain kind (such as all individuals who have a particular status) must evince the index, and only instances of the kind may evince the index (given assumptions within the interpreting agent's ontology, including assumptions about the relative sharedness of this ontology). (See Table 3.6 [row 2].) Loosely speaking, this framing of emblemeticity takes the perspective of the actor, focusing on social and political grounds (e.g., rights and responsibilities or "mays" and "musts") for behaving in certain ways (or imitating and sanctioning the behavior of others). This mode of emblemeticity requires that the bearer be more or less capable of normative regimentation—such as imitation of others and sanctioning by others (but also rule-based and law-based regimentation, *inter alia*). Crucially, if all instances of some kind must express some index, and only instances of that kind may express that index (and these facts are known to an interpreting agent), then the expression of the index becomes a necessary and sufficient criterion for inclusion in that kind (or ascription of that kind) for that interpreting agent (assuming everyone is behaving as they "should"). This is how deontic emblemeticity may license epistemic emblemeticity. As will be discussed below, the other direction is also possible: because an individual or instance satisfies certain epistemic criteria (say, as to their material substance: they have a certain chromosome structure or primary sex characteristic), they are subject to deontic regimentation (for example, they are expected, or disciplined, to behave in certain normative ways). Deontic emblemeticity also has a transformative dimension: in certain cases, one may or must be of a certain status if one has performed a certain role (say, the status of warrior and the role of vanquishing a foe), and, in other cases, when one is of a certain status one may or must perform certain roles (say, wearing a bear pelt in a public forum as an index of one's warrior status).

Relational emblemeticity means that, prototypically speaking, all instances of a kind (such as all members of a species, team, ethnicity, or community) have the index in common, in contrast to instances of other kinds (who have other indices in common), and instances of all these kinds are conscious of this contrastive commonality (again, given assumptions within the interpreting agent's ontology, including assumptions as to the relative sharedness of these assumptions). (See Table 3.6 [row 3].) In some sense, this framing of emblemeticity foregrounds the

TABLE 3.6

Four Dimensions of Relatively Emblematic Indices

Epistemic	An index that provides *necessary* and *sufficient* criteria for inferring (and/or ascribing) the kind in question.
Deontic	An index that *may (only)* be expressed by instances of a particular kind; and an index that *must (always)* be expressed by instances of a particular kind.
Relational	An index that all instances of a kind have in *common*; an index by which instances of different kinds *contrast*; and an index of which all such instances are *conscious*.
Phenomenological	An index that is *maximally public* (e.g., perceivable and interpretable); and an index that is *minimally ambiguous* (e.g., one-to-one and onto).

relations between kinds (in a field consisting of multiple kinds) and the reflexive (rather than normative) capacities of the individuals or instances that bear them. The first two dimensions of this mode of emblemeticity (commonality and contrast) may be grounded in deontic emblemeticity (may and must) and grounding of epistemic emblemeticity (necessary and sufficient). The last dimension obviously requires that one be able to self-reflexively relate to its own indices—in the sense of being able to internalize (or, in the idiom of section 5, commit to) the attitudes of other interpreting agents toward them (and thereby know what kind these others will assume one holds).[13] Just as the deontic regimentation of an emblematic index among instances of a kind may be internally or externally imposed (e.g., by members of the kind, or by members of other kinds), the epistemic utilization of the index by instances of a kind may be internally or externally applied. Here we see how individuals in, or instances of, different kinds, within a field of possible kinds, may ascribe kinds to each other (as well as themselves) and regiment the indices of each other (as well as themselves) based on these ascriptions. Recall our discussion at the end of section 2: culture, in one framing, is a relatively emblematic index of one's membership in a semiotic community. In the next section, we will deal with some of these issues at length.

Phenomenological emblemeticity means that, prototypically speaking, the index is maximally public and minimally ambiguous (again, given assumptions within the interpreting agent's ontology, including assumptions as to the relative sharedness of these assumptions). (See Table 3.6 [row 4].) By minimally ambiguous is meant that the index is relatively emblematic in any of the other three ways: epistemic, deontic, relational. Maximally public means that the index is both ever present and easily perceived. These two criteria provide a key means by which individuals in, or instances of, a kind may be more or less self-conscious of their own kindedness and more or less intersubjectively aware of each other's kindedness. In particular, by ever present is meant that the index is relatively context-dependent, or dependent on relatively ubiquitous contexts (however artificial).[14] By easily perceived is meant that the index is not only perceptible to others (with minimal artificial extensions of their sensorium), but also perceptible to the bearer, where both self and other, or index-bearer and index-interpreter, perceive that it can be perceived by each other.

This is a way of assuring mutual knowledge of the index (and its diagnostic relation to the kind). In the case of mental states, this dimension is crucial for intersubjectivity: asserting a belief or declaring an intention, for example, is a key way of making that belief or intention intersubjectively known, such that we may both know that we both know what we both know—setting aside issues of deception, false-consciousness, theater, and parasitic semiotic processes more generally (points we will return to in chapter 5).

RELATIVE EMBLEMETICITY; FEIGNABILITY AND MASKABILITY

Crucially, while these modes of emblemeticity were defined in relatively stark terms, the definitions themselves are meant to capture prototypic properties of emblems. Most emblems will not evince all the properties to perfection. And thus, the issue is not so much, "is this index emblematic," but rather what is the relative emblemeticity of one index in comparison to other indices (given a particular semiotic ontology and framing of emblemeticity). Thus, while there are indeed exemplary emblematic indices (such as wearing a uniform), most indices are only more or less emblematic in comparison to other available indices, insofar as they more or less satisfy the foregoing kinds of criteria. For example, in some ontologies, wearing a badge may be more emblematic than carrying a billy club in the case of social statuses; or having a penis may be more emblematic than having a deep voice in the case of material substances; or saying "I agree" may be more emblematic than nodding one's head in the case of mental states. Partly for these reasons, perhaps, rather than attending to a single relatively emblematic index, agents may usually attend to a range of relatively nonemblematic indices, which, only when occurring together, constitute relatively good evidence for the inference of a kind and, thus, a relatively good reason to regiment the indices of an individual in light of its kindedness. For example, as will be shown in chapter 4, usually the best indice of one's kinds is the world in which one is embedded.

Finally, an index may be less deontically, relationally, or phenomenologically emblematic (say, less ever present and easily perceivable or less self-consciously evinced or not deontically regimented at all) and yet be more epistemically emblematic—providing relatively incontrovertible evidence precisely because it is less easy to become self-conscious of, and thus more difficult to parasitically manipulate, and ultimately dissemble with. We might call this last feature *nonfeignability* (or *nonmaskability*, when it runs in the other direction). An index that is nonfeignable (whether or not it is easily thematized), in addition to being emblematic in one or more of the other ways, often provides a kind of gold standard for identification.[15]

Finally and perhaps most severely, as carefully laid out in chapter 1 it cannot be emphasized enough that emblemeticity is itself often best understood as a consequence of semiosis rather than a condition for semiosis, such that most semiotic processes proceed by minimal reference to emblems (and explicit, deduction-like modes

of interpretation), and maximal reference to ambiguous indices, context-dependent objects, tentative interpretants, fluid ontologies, and flexible (if anxious and error prone) signifying, objectifying, and interpreting agents. Enclosure and emblemetization are often concomitant processes.

GENDER AND SEX; ASCRIBED AND ACHIEVED STATUS; CRITERIAL ROLES AND ESSENCES

Finally, there is the usual set of tensions between social statuses and material substances. For example, in one relatively widespread semiotic ontology, or "world-view," gender is a social status and sex is a material substance. In such an ontology, there are many roles, more or less emblematic, of gender; and these are relatively context-dependent, grounded in the imitating and sanctioning practices of a community—techniques of body, forms of dress, fashions of speaking, and so forth. Similarly, in such an ontology, there are many properties, more or less emblematic, of sex; and these are relatively context-independent, grounded in the biochemical constitution of our species—chromosome structure, primary and secondary sex characteristics, propensity to succumb to certain diseases, and so forth. (With something like chromosome structure usually understood as being criterial, however ambiguous it may sometimes be.)

Moreover, given such ontologies, the fact that one group of people is subject to deontic regimentation of their social status—whether via relatively tacit processes such as imitation and sanctioning or via relatively explicit processes such as politically promulgated and legally enforced rights and responsibilities—may itself be grounded in their putative material substance, and the fact that this substance seems to have highly emblematic properties (such as being ever present and easily perceived). Such assumptions ground Linton's (1936; and see Maine 2004 [1866]) famous distinction between "ascribed statuses" (or statuses, such aslike age, gender, and race, that one seems to be born into) and "achieved statuses" (or statuses, such as property rights, occupations, and so forth, that are often voluntarily performed or contracted into). In particular, social statuses such as age and gender seem to be grounded in material substances, and so, in a given social formation with a particular ontology, one may be automatically ascribed a particular status (whether or not one likes it, or wanted it).

To be sure, what is ascribed or achieved is usually an historical-anthropological question, and there will be constant battles over whether some behavior or feature is a property or a role or whether some kind is a "natural kind" or a "social construction." And, indeed, as we saw in section 2, many want to say that where we draw the line between social statuses and material substances, or "culture" and "nature," is itself grounded in culture—qua local beliefs, or normatively regimented ontological assumptions, about where such a divide should be. (A division that is itself subject to reframing through processes that may turn on ontological strain and leakage.)

Finally, there will also be attempts to find criterial roles (or properties) to explain other roles (or properties)—the single behavior that indicates that one is gay, qua social status (say, sleeping with members of the same sex), or the single property that indicates one is homosexual, qua material substance (say, some genetic marker). To someone committed to such an ontology, such a role or property may then become the essence of the status or substance itself, all other roles or properties seemingly following from it.[16] In section 6, we will theorize the ways ontologies are not only a condition for such interpretations, but also are themselves the consequence of such interpretations. Hence, we will focus on the ways such ontologies get transformed over time as much as deployed in time.

In short, just as the political stakes of kindedness are incredibly high (indeed, ontologies and politics are in essence equivalent), the personal consequences of kindedness can be incredibly cruel.

THE PORTABILITY OF ONTOLOGY

Table 3.3 lists some of the ways semiotic objects, such as kinds, may become relatively objectified, or enclosed. As discussed, one particularly important route to objectification is through relatively representational interpretants. Such interpretants project propositional contents onto objects: They can be true or false, stand as premises and conclusions of inferences, and make states of affairs (or referents) relatively explicit. It should now be stressed that such relatively objectifying interpretants may also function as relatively emblematic signs in their own right (by being, for example, relatively public and unambiguous), and thus constitute a key way of making explicit our ascription of indices to individuals ("Pat blushed"), our ascriptions of individuals to kinds ("Pat is a sensitive soul"), and the contents of our ontologies more generally.

Crucially, such interpretants, which in essence characterize sign-object relations (are so are really meta-signs), may often "circulate in" more distal contexts than the original signs they were originally interpretations of (e.g., the event of Pat's blushing). In the terms of chapter 1, they often constitute relatively *portable* semiotic processes, in that their meaningfulness (which includes their means-ends-fulness) is applicable to many contexts and applicable in many contexts. To say that they are applicable *to* many contexts does not so much mean that the states of affairs they represent are relatively general or pervasive, but rather that they are relatively flexible and displaceable in their ability to represent states of affairs. As will be developed at length in chapter 5, human-specific modes of language and cognition offer precisely such a potential. Concomitantly, to say that they are applicable *in* many contexts means that their expression and interpretation is relatively independent of context, or that the context they are dependent on is widely distributed, or that they establish their own context wherever they go (often via ontological transformativity, and selective framing, as will be discussed below). In some sense, relatively portable semiotic processes seem to slip through the sieve of context (and the need to be adequately

entangled in relations such as incorporation, complementation, and creation) and so can be coherent (or at least not found incoherent) in and across many worlds.

Crucially, this often ensures that the ontological assumptions in question are "widely known" (or at least pervasively ontologized) even when the entities, events, and relations they describe are not frequently experienced (and often do not even exist or occur at all). Stereotypes in the nontechnical sense (qua prejudices, of the kind just discussed), as well as stereotypes and prototypes in the technical sense, are classic examples of this phenomenon.

5. Semiotic Agents and Generalized Others

Agency sits at the intersection of flexibility and accountability. With respect to flexibility, one can have more or less power over, or knowledge about, some process. Loosely speaking, one may be more or less able to control, or be conscious of, its unfolding. And with respect to accountability, depending on how much power over, or knowledge about, a process one has, one can be held more or less responsible for its repercussions or be accorded more or less rights to its effects. For example, one may be more or less subject to processes such as praise and blame, ownership and imprisonment. While there are many ways to think about flexibility and accountability, this section theorizes agency in terms of semiotic processes (and, hence, a Peircean ontology) while foregrounding the concerns of Bacon. It is meant to be compatible with, though narrower than, the characterization of agents offered in chapter 2.

FLEXIBILITY AND ACCOUNTABILITY; PRACTICAL AND THEORETICAL AGENCY

In particular, *practical agency* (or "power") may be defined as the degree to which one can control the expression of a sign, compose a sign-object relation, and commit to an interpretant of this sign-object relation.[17] And *theoretical agency* (or "knowledge") may be defined as the degree to which one can thematize a process (event, entity, property, relation, etc.), characterize a feature of this theme, and reason with this theme-character relation.

Regarding practical agency, to *control* the expression of a sign means to determine where and when it occurs, to *compose* a sign-object relation means to determine what object is stood for and what sign stands for it, and to *commit* to (or "internalize") an interpretant means to determine what effect a sign will have (insofar as it stands for a particular object, and is expressed in a particular time and place). (See Table 3.1 [(row 7].) In particular, commitment turns on the degree to which one may anticipate an interpretant of one's sign (or the effect of one's instigation), where this anticipation is evinced in being surprised by, or disposed to sanction and draw inferences from, nonanticipated interpretants. This last dimension loosely corresponds to Mead's (1934) definition of symbols (as opposed to gestures) as inherently self-reflexive semiotic processes, in which the signer can stand in the

shoes of the interpreter and thereby know their response, insofar as they know how they would respond in a similar situation. I say loosely, because this definition is broader: just as one can more or less anticipate, and thereby orient to, the interpretants of one's signs in a social world (or a space of thirdness), one can differentially anticipate the effects of one's causes in a material world (or a space of secondness). Crucially, as with control and composition, commitment is a graduated notion. For example, as will be developed further in section 6, one can have more or less commitment, depending on how well one can attend to, and perhaps represent, the relation between one's sign and the context it is effective of (and appropriate in),; and, thus, how exactly others will react to it as a function of how it is so placed.

Regarding theoretical agency, to *thematize* a process (event, entity, relation, etc.) means to refer to it or to treat it as the topic of a representation (such as an assertion or belief), to *characterize* a process means to predicate a quality about it or to treat it as the focus of a representation, and to *reason* with a theme-character (or topic-focus) relation is to justify such a representation or use such a representation to justify. (See Table 3.1 [row 8].) In particular, reasoning turns on the degree to which one may provide relatively logical (inferential) or empirical (indexical) grounds for a representation (or use one's representation as logical or empirical grounds). This last dimension loosely corresponds to what philosophers such as Brandom (1994) call "knowledge," or beliefs (qua representations, themselves consisting of a theme-character relation), that are both "justified" (and thereby grounded in prior inferential and indexical processes) and "true" (and thereby grounding of subsequent inferential and indexical processes).

In the case of practical agency, one has power over a process "from the inside" (by shaping the unfolding of its components); in the case of theoretical agency, one has knowledge about a process "from the outside" (by representing the unfolding of its components, usually via another semiotic process). Crucially, the processes in question are quite general—turning on any individual component of, or complicated relation between, instruments and actions, joint-attention and interaction, commodities and oedipal triangles, material substances and social statuses, discourse practices and cognitive representations, facial expressions and affective unfoldings, *inter alia*. And both modes of agency may be present in the same practice: in representing a state of affairs, for example, one has some degree of theoretical agency over the state of affairs so represented, and one has some degree of practical agency over the representational process per se. In this way, practical agency relates to theoretical agency as residence in the world (chapter 4) relates to representations of the world (chapter 5).

In one widespread ontology, and perhaps as a general tendency, the greater one's degree of control, composition, and commitment, and the greater one's degree of thematization, characterization, and reasoning, the more responsible one is held, or the more rights one is accorded, for the result of some process. And the more responsibility or right one is accorded for some process, the more one can be praised or blamed for it, the more one can feel pride or shame for it, and the

more one can be rewarded or punished for it. This is how flexibility (power and knowledge) scales with accountability (rights and responsibility, or normative and causal regimentation, more generally).

As a function of framing, just as the interpretant of one semiotic process may be the sign of an incipient semiotic process, so too may the sign of one semiotic process be the interpretant of a prior semiotic process. And just as the character of one representation (qua focus) may be the theme of a subsequent representation (qua topic), so too may the truth of one representation be the justification for a subsequent representation. More generally, in the tradition of Hilary Putnam (1975), there is a division of practical and theoretical agency, as distributed across long chains of temporally, spatially, and social distal actors and institutions. This shows that it is not usually a concrete entity—qua participant in an interaction—that determines participants' practical and theoretical agency, but rather the temporally unfolding, historically contingent, institutionally grounded, infrastructurally embedded, and ontologically imaginedframed interaction itself. (Compare this point with our discussion of regimentation in section 2.)

For example, if my sign (to be subsequently interpreted by you) is itself an interpretant (of your previously expressed sign), as is the case in much discursive interaction, then my semiotic agency is locally constrained in at least two fundamental ways. Framed retentively, my control, composition, and commitment are constrained by the sign-object relation I am reacting to (and, hence, the sign-object relation that you expressed). For example, if you just asked me a question (qua first pair-part), my response must more or less conform to your question—be it in preferred ways (I give you an answer), or in dispreferred ways (I tell you why I don't know, I ask you a related question in turn, and so forth). Framed protentively, you will in turn respond to my response, treating my answer (or lack thereof) to your question as more or less adequate and relevant; thus, I also shape my answer to your (imagined) reaction. Reciprocally, your behavior is mediated by mine, in precisely the same ways, if only in the next move and through the previous move. (That said, relatively speaking, and with many caveats, agents whose utterances fall in first pair–part slots typically have more practical agency than agents whose utterances fall in second pair–part slots.) Note, then, that each of the three dimensions—control, composition, and commitment—is shaped by retentive forces as much as protentive ones. This means that the practical agencies of signer and interpreter are inherently entangled. Note that this example focuses only on some of the more immediate, or local, factors. Issues such as sequential position, situational context, the channeling of causes and effects (as per chapter 2), and so forth could also be added, indefinitely. And note that analogous issues hold for theoretical agency.

In short, agency is defined as two sets of three distinct dimensions, each variable by degree. The reason for these dimensions is motivated by a particular understanding of meaning. Various degrees of agency, along any one of these dimensions, depend on semiotic properties of signs, social properties of semiotic communities, and cognitive properties of signers. Accountability often scales with the degree of

flexibility one has (or is accorded) over each of these dimensions (itself subject to the ways in which a particular semiotic community frames the relation between flexibility and accountability, given their own semiotic ontology). And, as implied in these definitions, agency—as the relation between flexibility and accountability—does not necessarily (or even usually) adhere in specific people: The "one" in question can be distributed over time (now and then), space (here and there), unit (group of people and part of person), number (one and several), entity (human and nonhuman), and individual (Tom and Jane). In this way, agency involves processes that are multidimensional, by degrees, and distributed, and it is necessarily contextually contingent, interactionally emergent, and ontologically framed.

Finally, note how this particular *ontology of agency* resonates with, but cannot be reduced to, a long tradition of critical humanism (Kockelman 2007b; Marx 1967 [1867]), whose basic insights may be summarized as follows: (1) we make ourselves, just not under conditions of our own choosing; (2) this self-creating capacity is human-specific (and sometimes imagined to be grounded in some putative faculty such as "language" or "imagination"); and (3) there is an ethical injunction not to let this capacity lie dormant and, hence, to seize control over the mediating conditions under which we self-create. Needless to say, other ontologies are possible (Kockelman 2006b, 2007b, 2011a).

To frame certain aspects of this critical tradition in the foregoing categories, we may link performativity and agency to the discussion of regimentation as selection from section 1: insofar as actors have more or less practical or theoretical agency over their semiotic processes, they have more or less semiotic agency over the worlds (contexts, situations, or conditions) that constitute the causal and normative roots and fruits of such processes. In semiotically acting, then, we can both widen or narrow the capacities of ourselves and others to semiotically act; thus, we should be differentially accountable to ourselves and others for these actions.

ENCLOSING THE AGENT; FETISHIZATION AND REIFICATION; UNITS OF ACCOUNTABILITY

As we saw in section 2, one way to think about processes such as fetishization and reification is as the unwarranted projection of either too much or too little agency onto an actor—attributing to them more or less flexibility than one should and/or holding them more or less accountable than they are.[18] As may now be seen, such processes often turn on enclosure (Kockelman 2007a): putting an artificial analytic boundary (or "frame") around one particular semiotic process (or bundle of semiotic processes), and thereby eliding (or emphasizing) the many other semiotic processes (and attendant agents) that had a hand (or say) in its genesis or outcome.

Indeed, a key enclosure is often the skin of the semiotic agent itself—the "person" as a signer who seems to simultaneously control, compose, and commit, and/or thematize, characterize, and reason (and, hence, constitutes a prototypic "speaker," "actor," or "thinker"). However, such an agent is often a corporate entity. And, in

this regard, the notion of a *unit of accountability,* as defined in chapter 2, is essential (Kockelman 2007b; and see Maine 2004 [1866]). In an ethnographic context, it often corresponds to that entity in which commitments and entitlements adhere, and to that entity to which sanctioning is applicable (depending on its degree of implication in, or agency over, a semiotic process). For such corporate entities, a key idea is this: if a unit of accountability (or one or more of its individual parts, members, or moments) satisfies or, more typically, fails to satisfy a commitment or entitlement to signify or interpret (or violates its projected propensity, or status, more generally), the unit of accountability (or one or more of its individual parts, members, or moments) may be sanctioned for it. For example, if a family cannot pay its annual tribute to the king, all members, or any individual member, may be punished; or if a parent incurs a debt, the children may inherit it. Of course, this holds for "individuals" (qua particular people) as well: I can be praised tomorrow for what I did or said today; my back can be scourged for what my mouth said (or my mind believed or my gesture belied). And, often, the individuals who, or instances that, collectively constitute such a unit are not equal: One or more may speak for, or more generally represent, the others, often precisely because they are understood to have more practical and theoretical flexibility than the others and, concomitantly, should be held more accountable than the others. In short, such units of accountability usually constitute a particular and particularly important kind of status, a kind of status that is not just ascribed to anyone (or anything), but rather only to those entities who, individually or collectively, manifest some degree of practical or theoretical agency (often imagined as "reason," or a "critical faculty"). Indeed, in a tradition that really comes to the fore in Hobbes (1994 [1651]), this is one classic way of defining the "person."

Finally, as we saw in chapter 2, while the focus here is on sociohistorical units of accountability, such units also occur on phylogenetic time scales with relatively causal mechanisms of accountability (often best theorized via concepts such as inclusive fitness, units of selection, and so forth). Recall, for example, our discussion of communication between conspecifics and the way two seemingly individual agents (qua signer and interpreter) could be framed as a single larger agent when processes of selection were taken into account along with processes of significance. In this way, mutual interests coupled with distributed agency and a shared fate are key factors constituting units of accountability on phylogenetic and historical time scales (and probably on cosmological, interactional, and developmental time scales as well).[19]

COMMITMENT VERSUS ADDRESS; COVERT AND OVERT ADDRESS; INTERNALIZING ATTITUDE; SELFHOOD

As used here, an *addressed* semiotic process is one whose interpretant a signer commits to, and one whose sign is purposely expressed for the sake of that interpretant. Address may be *overt* or *covert* depending on whether or not the interpreter is meant to (or may easily) infer the signer's commitment and purpose. And just as one can

commit to others' interpretants of one's signs, one can commit to others' attitudes toward one's kinds (such as mental states, social statuses, material substances) through one's indices (such as roles and properties). For example, one can anticipate what attitude an interpreter will adopt toward one's social status through one's role, where this anticipation is evinced in being surprised by, disposed to sanction, or prone to draw inferences from nonanticipated attitudes. In cases of self-reflexive semiosis, where the interpreter is the signer at one degree of remove, one can even self-sanction or shape one's own roles as conforming, or not, with one's reflexively ascribed, or self-attributed, status. And finally, one can also overtly and covertly address one's roles (or indices more generally) for the sake of others' attitudes (or interpretants more generally) toward one's statuses (or kinds more generally). All such processes are, of course, crucial aspects of selfhood (as a reflexive capacity) as explored most presciently by George Herbert Mead (1934), and developed most extensively by Erving Goffman (1959). Here they have been reframed (and generalized) in terms of kindedness, on the one hand, and practical agency, on the other.

For the moment, it should be noted that such processes probably turn on relatively human-specific capabilities and relatively sign-specific properties. For example, it seems that only humans (or at least mainly humans), and only humans at a particular age, can commit to others' attitudes (toward their social statuses and mental states, through their roles or indices), and that this commitment is differentially possible as a function of what kind of role or index, and hence sign, is being committed to.[20] As we saw, for example, relatively emblematic indices are easy to commit to by definition (and often by design). Crucially, *this interactional capacity potentially destabilizes the meaning of any semiotic process for such semiotic agents*: insofar as we may commit to (predict or internalize) the attitudes of others toward our kinds (through our indices), and orient to the fact that others are probably doing the same, we may strategically shape our indices (and kinds) for the sake of those interpretants (and assume others are doing the same). Such parasitic processes—from outright dissembling to strategic sincerity—are fundamental to (if not the essence of) human-specific modes of semiosis, and they are probably a driving force of sociogenesis. They will be further elaborated in subsequent chapters.

GENERALIZED OTHERS; PUBLICNESS OF MEANING; CONSCIOUS AND UNCONSCIOUS SELVES; SIGN EVENTS

As Mead (1934) saw it, each individual has many statuses (and kinds more generally), and each of these statuses is regimented via the attitudes of different sets of others. Usually, these sets are institution-specific (indeed, this is one of the key criteria of any institution). For example, as a mother, my status is regimented by the attitudes of my children, my husband, the babysitter, several close friends, my own parents, and so forth. As a bank- teller, my status is regimented by the attitudes of my boss, my co-workers, my customers, and so forth. As a shortstop, my status is regimented by the attitudes of the pitcher, the basemen, the fielders, the batter, the

fans, and so forth. As someone committed to the claim that you had ice- cream for dessert last night, my social status (or mental state) is regimented by your attitude (insofar as you just informed me of this), perhaps the attitudes of any other participants in the speech event, and so forth. And, within each of these interactions or institutions, my attitudes reciprocally regiment the statuses of my children and husband, my boss and customers, my basemen and batters, the participants in our speech event, and so on. In short, for many of our statuses (as for many of our mental states and material substances), there is usually a set of others whose attitudes help regiment it, and whose statuses (states and substances) our attitudes help regiment. And just as generalized others can be relatively big or small (in terms of how many others' attitudes they include), the kinds in question may be relatively fixed or fleeting—from relatively institutional statuses such as "mother" and "banker" to relatively interactional statuses such as "addressee" and "animator."

Recall that many attitudes are themselves ultimate interpretants. More generally, the attitudes of others toward our social statuses and mental states (as well as material substances) are evinced in their modes of interacting with us: they expect certain modes of signification, objectification, and interpretation from us (as a function of what they take our social statuses and mental states to be), and they sanction certain modes of signification, objectification, and interpretation from us (as a function of these expectations). Thus, we usually perceive others' attitudes toward our social statuses and mental states (and kindedness, more generally) in their modes of interacting with us (just as we perceive others' social statuses and mental states by their patterns of behavior). In this way, if one wants to know where social statuses and mental states reside, or where ultimate (representational) interpretants are embodied and embedded, part of the answer is as follows: in the sanctioning and inferring practices of a semiotic collectivity; as embodiedin the dispositions of its members; as embedded in the affordances they heed and the instruments they wield; as mediated by their semiotic ontologies and frames; as regimented by their reciprocal attitudes toward each other's social statuses and mental states; and as evinced in their roles, or indices more generally.. If there is any sense to the slogan *meaning is public*, which probably best belongs to Mead rather than to Wittgenstein, this is it.

In cases in which one has committed to the regimenting attitudes of ensembles of others toward one's social status or mental states (within some institution, however loosely defined or inadequately imagined), the sets of committed to (or "internalized") attitudes may be called a *generalized other*, loosely building on Mead's famous definition (1936:154). Most of us have a huge number of generalized others: some being wide enough to encompass most of humanity (say, our status as a person—at least we hope so), some being so narrow as to encompass only our lovers (say, as holding a certain awkward desire that we have shyly informed them of);, and, thus, some of which may endure our whole lives and some of which may emerge and fade within the same instant of interaction. Moreover, we also have social statuses and mental states, as well as kinds more generally, as regimented

by the attitudes of others, that we have not internalized. For example, others may attribute kinds to the self that the self does not (yet) recognize (even though it is subject to their regimentation). Animals and children, *inter alia*, are often subject to such forms of other-regimentation without self-recognition. These form one part of what may be called an unconscious self. These questions—of different kinds of multiply overlapping generalized others, and of conscious and unconscious selves (via committed to and uncommitted to or the internalized and uninternalized attitudes of others)—are crucial for understanding agency and selfhood.

Here, then, a key function of emblematic roles comes to the fore: They are often our best means of securing mutual recognition of, or rather intersubjectively regimented reciprocal attitudes toward, our social statuses and mental states (not to mention our material substances, and kinds more generally). *In some sense, in addition to representational interpretants of social statuses and mental states (or ontological assumptions made propositionally explicit), this is a fundamental way projected propensities, qua kinds, may become reified: by being intersubjectively recognized and emblematically regimented, often through relatively large and relatively permanent generalized others, as quasi-essences*. And, more generally, any sort of kind may be more or less "objectified" insofar as it is more or less subject to various modes of enclosure, as discussed in section 2.

As we will take up below, a sign event or interaction constitutes one of the minimal generalized others. Loosely speaking, as a signer and an interpreter, we each regiment the social statuses, mental states, and material substances of the other: what we intersubjectively know (and come to know) about each other given the immediate context, what we intersubjectively know about each other given the ongoing interaction, and what we intersubjectively know about each other given our shared culture or, more generally, our semiotic ontologies. In chapter 5, we will return to such generalized others as they relate to relatively inferential semiotic processes (such as ostensive-inferential communication), themselves typically couched in the idiom of shared intentionality.

6. From Performativity to Transformativity

We may now revisit John Austin's (2003 [1955]) theory of performativity. To succinctly (and loosely) characterize a few of his core claims, for a speech act to be "felicitous" it must be appropriate in context and effective on context. And speech acts are only appropriate if participants already have certain social statuses and mental states, and they are only effective if participants come to have certain social statuses and mental states. For example, normatively speaking, a wedding ceremony is appropriate only insofar as the two people to be married have the social statuses of unmarried, adult, man, and woman (*inter alia*) and insofar as the one doing the marrying has a social status such as priest, rabbi, or captain at sea (*inter alia*). And a wedding ceremony is effective only insofar as the two people come to hold

the statuses of husband and wife (*inter alia*). Similarly, normatively speaking, an assertion is appropriate only if the speaker believes what she is saying (*inter alia*), and an assertion is effective only if the addressee comes to believe what was said (*inter alia*). For Austin, such already existing and subsequently existing social statuses and mental states are the roots and fruits of speech acts, insofar as they are presupposed, entailed, and implicated by them.

As will be shown in chapter 5, in addition to this foregrounding of felicity conditions, Austin's key move was to explicate function by reference to failure, and he thereby detailed a range of ways such acts could go awry. Ironically, while he foregrounded such parasitic processes in his mode of explication, he limited his objects of analysis to nonparasitic speech acts. In particular, he left aside what he called "etiolations" of usage, and thus focused only on acts that were used in conventional ways, with minimal allowance for the Veblenesque processes that may be built upon them (an elision that Goffman was destined to exploit). In the rest of this section, we will use ideas from the first four sections of this chapter to rebuild a theory of performativity, taking inspiration from Peirce and Mead as much as from Austin. In this way, we will revisit the various modes of ontological transformation that were introduced in chapter 1.

ME/I, SYMBOL/GESTURE (MEAD); APPROPRIATE/EFFECTIVE, EXPLICIT/IMPLICIT (AUSTIN); INTERACTION

Framed another way, given our characterization of social statuses and mental states in section 3 (with its focus on attitudes, or interpretants), appropriateness means that a space of intersubjectively recognized commitments and entitlements to signify, objectify, and interpret is already in place; and effectiveness means that a change in the space of intersubjectively recognized commitments and entitlements to signify, objectify, and interpret takes place. (As mentioned above, reference to kinds such as social statuses and mental states are ways in which actors and analysts alike may objectify, or more generally enclose, such a space.) Thus, just as we interact within a given space of commitments and entitlements, our interaction changes the space of commitments and entitlements. This is often the essence of any ritual process (which includes modern forms of contract). Indeed, it is a key way of framing the "meaning" of any semiotic process more generally. As will be shown, such transformations cannot be understood except by reference to interpretants (indexicality by itself gets analysis only so far, however many meta-levels are added); it pertains to sign events in general, and not just to speech acts or discursive practices; and it is easily generalized to include causal processes (turning on feasibility and efficaciousness) as much as normative processes (turning on appropriateness and effectiveness).

In addition to making a distinction between the relative appropriateness and effectiveness of speech acts, Austin also made a distinction between relatively explicit and implicit speech acts.[21] For example, a relatively explicit speech act encodes both

its illocutionary force and its propositional content with lexical categories (for example, "I order you to shut the door"); whereas a relatively implicit speech act may achieve the same effect with minimal encoding and maximal inference (for example, "shut the door," "it sure is cold in here," or simply "brrr"), usually by reference to its position in an ongoing sequence of actions and by its placement in context more generally. In the idiom of section 4, the former count as relatively emblematic signs of a speech act's illocutionary force and propositional content (and often, concomitantly, of participants' social statuses and mental states, be they already in place or coming to be in place).

But prior to Austin's understanding of performativity in terms of explicitness versus implicitness and appropriateness versus effectiveness, and the legions of scholars influenced by it, Mead (1934) made an analogous distinction between symbols versus gestures, on the one hand, and the Me versus the I, on the other. As already discussed, the symbol/gesture distinction is really a distinction between semiotic processes whose interpretants the signer can or cannot commit to (and thereby turns on issues related to self-reflexivity, conventionality, explicitness, and emblemeticity). But it may be generalized, as per section 5, to turn on semiotic processes over which one has relatively large or relatively small amounts of semiotic agency (and is thus best understood as a graded notion). Cross-cutting this distinction, the I is the "response of the organism to the attitudes of the others" and the *me* is the "organized set of attitudes of others which one himself assumes" (1934:175). That is, the me is the self as regimented by the attitudes of some potentially generalized other (however wide or narrow, lasting or fleeting, actual or imagined, causal or normative). And the I is the self that transforms this other.

More carefully, using the idiom introduced in the last three sections (itself a semiotic and temporal reading of Peirce, Mead, and Austin), *the Me is the self as appropriating, having taking into account others' attitudes toward (or interpretants of) its mental states and social statuses (or kinds more generally); and the I is the self as effecting, enacting roles (or expressing indices) that change others' attitudes (and often others' kinds)*. Such a process—itself partly gestural and partly symbolic, partly agentive and partly unagentive, partially oriented to material environments (or secondness) and partially oriented to social environments (or thirdness), partly accommodating to the past and partly assimilating of the future—is foundational to human-specific forms of interaction.[22] (Though, as we will see later, the agents or selves in question don't need to be individuals, or even humans.) In some sense, we already generalized this way of framing interaction in section 2, in relation to the concerns of chapter 2, during our discussion of regimentation as a form of selection.

EFFECTIVENESS AND EFFECTING APPROPRIATENESS; INVERTING THE FRAME

Classic understandings of performativity thereby focused on two issues. First, there is the effectiveness of discursive practices (that is, the idea that such performances not only reflect the world but also actually transform it). This is essentially the

unmarked form of performativity and constitutes one of Mead and Austin's key insights. And second, there is the self-grounding aspects of discursive practices: the idea that certain performances can actually effect their appropriateness conditions, or have their roots as their fruits. This kind of performativity has been the focus of more recent critical theory via ideas such as Althusser's interpellation (1971), Arendt's performativity of foundations (1963), and Hacking's historical ontology (1995, 2002). And, as just seen, it was implicit in Mead's theory via the self's ability to internalize the attitudes of others towards its social statuses and mental states: not, who will others assume one is given how one acts, but rather, *how will one act given who others assume one is*.

In the rest of this section, we discuss various kinds of semiotic performativity or, better, *ontological transformativity* (which include these two at their extremes). To do this, we need to reframe the foregoing concerns in the following way. Rather than understanding social statuses and mental states (or kinds more generally) as the roots and fruits of performances (or indices more generally), as per the Austinian framing, we want to understand performances as the roots and fruits of relatively intersubjectively recognized social statuses and mental states. More carefully, in the idiom of chapter 1, we want *to understand putative indices (qua signs) as the roots and fruits of possible orientations (qua interpretants) to projected propensities (qua objects), as mediated by and potentially transformative of semiotic ontologies and frames*.

VARIOUS MODES OF ONTOLOGICAL TRANSFORMATIVITY

From the standpoint of a particular semiotic agent (and focusing, for the moment, on social statuses as a particular sort of kind), a role (or index more generally) may be more or less "transformative" in a variety of ways. First, it may lead to your social status (irrespective of my assumptions). Second, it may strengthen or weaken (if not create or destroy) my assumption that you belong to that social status. Third, it may strengthen or weaken my assumption that members of that social status perform roles (or exhibit indices) of this sort. Fourth, it may strengthen or weaken my assumption that there exists such a social status (as a propensity to perform such roles, or exhibit such indices, that you belong to). More broadly, it may strengthen or weaken my assumptions regarding the individuals, kinds, or indices that constitute a particular world. Fifth, it may strengthen or weaken my assumptions regarding the possibilities of other worlds (involving other sorts of indices, kinds, and individuals). And finally, my assumption that there exists such a status (as a propensity to perform certain roles, or exhibit certain indices, which you belong to), may more or less lead to your performing such a role or exhibiting such an index (and, concomitantly, belonging to such a status, itself constituted by a particular propensity to perform certain roles or exhibit certain indices). More broadly, changes in my assumptions about a world (in any of the foregoing ways) may change the world about which I make assumptions.

The first kind of transformativity corresponds, more or less, to the unmarked classic sense of performativity. For example, taking part in a wedding ceremony

may transform your status from unmarried adult male to husband. While your transformation may be recognized in, and regimented by, the attitudes of many others (including your own attitude), and thereby exist only through such attitudes (and the performative signs that brought them into being, as well as the institutional frameworks that usually organize such relations, and so forth), it is relatively unaffected by my attitude, or interpretants, per se. The second kind of transformativity corresponds, more or less, to the quotidian practice of using another's role, or index, to infer their status. For example, when I see your wedding ring, I may come to assume that you are married. The third kind of transformativity corresponds, more or less, to a change in one's assumptions about the propensities of a particular status (to perform certain roles, or exhibit certain indices). For example, seeing how a particular husband behaves may change my understanding of the normative behavior of husbands. If this third kind of transformativity is relatively quantitative (a change in assumptions, or strength of assumptions, about *propensity*), the fourth kind of transformativity is relatively qualitative (a change in assumptions, or strength of assumptions, about *kindedness itself)*. For example, seeing how a particular husband behaves may lead one to postulate a new status—the adulterer, or perhaps the cad. If the second kind of transformativity often involves *deduction-like processes* (e.g., using the relative emblemeticity of an index to deduce a status), and if the third kind of performativity often involves *induction-like processes* (e.g., using the relative frequency of an index to infer the propensity of a status), this fourth kind of performativity often involves what Peirce called *abduction-like processes* (e.g., hypothesizing a new status, or a new role or index for an old status). And the fifth kind of transformativity turns on the ways transformations in assumptions about one world may affect assumptions about other worlds (and thus, for example, possible or permissible arrangements of individuals, kinds, and indices). Note, then, that as per our discussion of the transformation of worlds in chapter 1, all of these are ways that semiotic processes turn on, and potentially transform, the semiotic ontologies of particular agents. (See Table 3.7.)

Finally, as per our discussion of the distribution of practical and theoretical agency in section 5, note that such transformations are often best understood not so much as intentional and individualist phenomena (qua changes in the beliefs of a particular person at a particular moment, though they are that too), but as *interactionally emergent and infrastructurally distributed phenomena*. In particular, they are evinced in and regimented by all the modes of coherence and incoherence, on all the various scales, that were introduced in chapter 2 and will be detailed in the following three chapters.

THE TRANSFORMATIVITY OF MATERIAL SUBSTANCES

Before treating the sixth sense of transformativity, the foregoing framework should be generalized from social statuses (and mental states) to material substances. For example, a chemical reaction (which has products as its fruits and reactants as its

TABLE 3.7

Various Modes of Ontological Transformativity

1) Indices (and signs more generally) may change an individual's kind irrespective of an agent's ontological assumptions.
2) Indices may change an agent's ontological assumptions regarding the kinds that constitute a particular individual.
3) Indices may change an agent's ontological assumptions regarding the indices that constitute a particular kind.
4) Indices may change an agent's ontological assumptions regarding the indices, individuals, kinds, and agents that constitute a particular world.
5) Indices may change an agent's ontological assumptions regarding the possibilities of other worlds that could be constituted.
6) Changes in an agent's ontological assumptions about a world (in any of the foregoing ways) may change the world about which the agent makes assumptions.

roots) is akin to ritual transformation, but one undertaken in the realm of material substances rather than in the realm of social statuses and mental states. In other words, if something is already a particular substance, it is likely to take part in certain processes (or exhibit certain properties); and if something takes part in certain processes, it is likely to become a certain substance. Notice, then, that we are treating the material substance as the figure, and properties (and processes) that lead to it, and follow from it, as the ground.

Framed as such, at least the first five kinds of transformativity also hold for material substances. In particular, we can say that a process or property is "transformative" in one of five ways: *It more or less creates a substance (irrespective of some interpreting agent's assumptions); it strengthens (or weakens) an agent's assumption that an individual is an instance of that substance; it strengthens (or weakens) an agent's assumption that a substance should exhibit properties of that sort; it strengthens (or weakens) an agent's assumption that there exists a substance with such properties; it strengthens (or weakens) an agent's assumption that there may exist worlds with such individuals, properties, and substances.* These are the kinds of relations that most interested Francis Bacon, themselves turning on an agent's power over, and knowledge about, a given substance: *what is it; what caused it to become what it is; and how to wield such becomings to effect such beings*.

Notice that, by our usage of the terms *strengthens* and *weakens*, many indices simply confirm (or conform to) prior assumptions. While this fact is interesting in itself, our focus here and above is on the ways our interpretations of indices, as mediated by ontologies, may both strengthen and weaken, and even create and destroy, the assumptions that constitute our ontologies—and thereby transform those very ontologies. And again it must be emphasized that ontological assumptions in question may be as embedded and embodied as they are articulated and enminded. Thus, while it may seem that representations of the world are being foregrounded in this account, the transformations in question involve modes of residence in the world as well. And, in both cases, the practical and theoretical agencies involved are usually radically distributed.

Finally, it should be emphasized that "things," in the stereotypic sense, may be understood to have social statuses (and sometimes even mental states) as much as material substances (e.g., a salt shaker that we have decided will play the role of king in our chess game, an animal that has been deemed the scapegoat, and so forth). And they may thus be entangled in, if not constituted by, all the ontological transformations discussed above that stereotypically apply to "people." (Just as people, insofar as they are usually also composed of material substances, are subject to the foregoing kinds of material transformations.) As will be discussed below, while such "things" may not be able to self-regiment, or reflexively adopt attitudes toward their own statuses (at least most things in many ontologies), other agents can regiment their statuses (and mental states) for them. This is another way of framing the claim that the functions of instruments are regimented by norms as much as causes, and thereby caught up in appropriateness and effectiveness as much as feasibility and efficaciousness.

PEOPLE AND THINGS; THIRDS AND SECONDS; REFLEXIVITY AND RELATIONALITY

Of course, people are different from things in many ways (at least in many widespread ontologies, when understood in their stereotypic senses), two of which are particularly relevant for this discussion (and follow directly from the foregoing reading of Mead). First, one's index-kind relations (for example, what statuses one holds and what roles one performs) are tightly coupled to one's interpretants of one's index-kind relations (for example, the attitudes one has toward one's statuses and the assumptions one holds about their attendant roles). In other words, "*identity" is inherently reflexive*. And second, one's index-kind relations are tightly coupled with others' interpretants of one's index-kind relations (for example, the assumptions others have about who one is and how such a person should behave). In other words, "*identity" is inherently relational*. Phrased another way, just as there is a tight coupling between signs (i.e., roles, or indices), objects (i.e., statuses, or kinds), and interpretants (i.e., attitudes, or inferences), there is also a tight coupling between signers (e.g., status- and state-bearing agents who speak), "objecters" (e.g., status- and state-bearing agents who are spoken about, perhaps best labeled "topics"), and interpreters (e.g., status- and state-bearing agents who are spoken to). Such coupling, itself an entailment of the semiotic nature of interaction, and relations-between-relations more generally, insures that the causal dynamics, or transformative dimensions, of human behavior are enormously complicated. And while claims regarding the reflexivity and relationality of "identity" are at least as old as Marx, if not much older, the point here is to reframe them in terms of ontology, interaction, kindedness, and coupling.

In many cases, to be sure, the interpretants and assumptions of the actor and observer, or signer and interpreter, are similar—oftentimes precisely because of the relative emblemeticity of the index in question. (Recall that a highly emblematic

index, such as a uniform, often insures that not only are both the actor and the observer, or signer and interpreter, aware of the kind in question, but they are also intersubjectively aware of this awareness. Indeed, in many cases, that is precisely the function of such indices; and this is one reason emblemeticity is so important.) But in many interesting cases the sixth sense of transformativity arises, which is akin to the classic critical sense of performativity mentioned above: cases in which the regimenting attitudes of an observer (and their ontological assumptions more generally) lead to the self-regimenting attitudes of the actor (rather than, say, vice versa), and thus ultimately to the index-kind relation of the actor (however this process may unfold interactionally).

For example, and loosely speaking, the status I assume you have in my manner of interacting with you (qua appropriateness conditions, or "roots") may be created by those very interactions (qua effectiveness conditions, or "fruits"). For example, in our interaction, instead of my learning what status you are (or how members of such statuses behave), you internalize my attitude toward your status, and thereby come to behave accordingly. Crucially, such internalizations may turn on the second kind of transformativity: for example, assumptions as to what statuses you hold (e.g., this individual is a busboy). They may turn on the third kind of transformativity: for example, assumptions as to how members of such statuses behave (e.g., busboys will act in the following ways). And they may even turn on the fourth and fifth kinds of transformativity: for example, what statuses exist (e.g., maitre d') and/or what indices they involve (e.g., taking orders, but not clearing dishes) and/or what individuals evince them (e.g., Pierre but not Hannah) and/or what worlds involve them (e.g., nineteenth- century France, but not fourteenth-century Mesoamerica).

Such a process seems to be the most human-specific mode of transformativity, in that *relatively speaking* the bearers of social statuses and mental states are more or less subject to it, whereas the bearers of material substances are not (almost by definition)—taking into account, as always, the various ways these distinctions may be ontologically framed, the kinds of strain and leakage that may accompany such ontologies, and the issues treated at the end of the last section. More specifically, the ability of something to be subject to such a process is, at least in many a widespread ontology, an emblematic, if not criterial, index of its *personhood:* a particular ensemble of material substances; that is itself a bearer of social statuses and mental states; with a reasonable degree of practical and theoretical agency over its own semiotic processes; itself recognized and self-recognizing, as a relatively enclosed unit of accountability; whose essence—and essential burden—is to enclose and disclose worlds, through practices (however parasitic) that may both conform with, and be transformative of, its own and others' ontologies.

4

Residence in the World

1. From Being-in-the-World to Meaning-in-the-World

This chapter treats residence in the world, or more or less coherent ensembles of relatively nonpropositional semiotic processes, including heeding affordances, wielding instruments, undertaking actions, inhabiting roles, and fulfilling identities. It is meant to complement chapter 5, which treats representations of the world, or more or less coherent ensembles of relatively propositional semiotic processes, such as mental states and speech acts, or cognitive processes and discursive practices more generally. Residence in the world and representations of the world are thus separated only for analytic and expository purposes. Taken together, as irreducibly interrelated, these semiotic modalities constitute *meaning-in-the-world*.

Thus, this chapter may be understood as bringing the foregoing theory of meaning to bear on Heidegger's critique of mind, thereby articulating being-in-the-world in terms of semiotic processes.[1] In some sense, then, we are taking up where we left off in section 7 of chapter 2. It may also be understood as a theory of *material culture*, or the meaning of "objects" and "things" (in their stereotypic sense). And it may even be understood as offering a theory of *context*, or that ensemble of relatively unrecognized semiotic processes that remains in the background of, or serves as the infrastructure for, more stereotypic signs, such as speech acts and communicative moves more generally. To these ends, the rest of this section outlines some of the overarching principles that organize residence in the world: coherence and incoherence, embeddedness and embodiment, intimacy and complementarity, disturbances and parasites, and so forth. Moving from a synthetic frame to an analytic frame, the next five sections treat each of the key constituents in detail: affordances, instruments, actions, roles, and identities. And the conclusion takes up Anscombe's idea of "acting under a description" (1957), and generalizes it to *comporting within an interpretation.*

EMBEDDED SEMIOTIC PROCESSES AND THE GARBAGE BIN OF MEANING

The five constituents of the residential whole—affordances, instruments, actions, roles, and identities—have a number of properties in common. Most importantly,

TABLE 4.1

Constituents of the Residential Whole and Their Semiotic Components

Constituent	Object	Sign	Incorporating Interpretants	Created Interpretants	Complementing 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	Instrument, Action, Role, Identity	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	Expression 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	Expression 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*

they are all semiotic processes consisting of relations between signs, objects, and interpretants. Many key facts follow from this simple claim, which the rest of this section will unpack and develop at length.

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 expression of that status (itself often an instrument or an action). And an *identity* is a semiotic process whose object is a value and whose sign is an expression of that value (itself often an action or a role).[2] (See Table 4.1.) Note, then, that each of these five terms can refer broadly to a semiotic process or narrowly to the sign-component of such a semiotic process.

Crucially, as semiotic processes, the interpretants of these constituents may range over any of the embodied and enminded interpretants discussed in chapter 3: affective, energetic, and representational (along with their ultimate varieties). Not only, then, are such constituents caught up in (mediated by, entangled with, or regimented through) feelings, behaviors, and utterances, they are also caught up in moods, habits, and beliefs. Moreover, as will be shown below, the

sign- and-interpretant components of each of these constituents are typically the interpretant- or sign-components of other such constituents (at different degrees of remove, and if only as the material trace of more stereotypic interpretants). That is, such semiotic processes signify, interpret, and objectify each other, such that their meaning is maximally *embedded*. In this way, residence in the world (like representations of the world, and meaning-in-the-world more generally) is maximally *reflexive*. And, as a reflexive form of infrastructure, it may be understood as self-regimenting. In some sense, *residence in the world is its own best interpretant*.

As semiotic processes, these constituents may thereby seem very different from stereotypic signs, such as speech acts and communicative moves more generally, which are usually foregrounded in analysis. For example, in the terms of chapter 3, their sign-components are not usually addressed (in the sense of purposefully expressed for the sake of others' interpretants). Their grounds are often relatively iconic and indexical rather than symbolic. Their object types are usually not propositions or concepts (and thus not inferentially articulated in stereotypic ways). And, as just seen, their interpretants are just as often embedded in other such constituents, as they are embodied, articulated, or enminded. While such nonpropositional 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), this chapter argues that they are relatively finite, structured, intuitive, and articulable.

CONTEXTUALIZATION: INCORPORATION, CREATION, AND COMPLEMENTATION

As we saw in chapter 2, to say that one semiotic process *contextualizes* another semiotic process is to say that the meaning of the latter is dependent upon the meaning of the former. More specifically, what constitutes the sign, object, or interpretant of the latter is dependent upon what constitutes the sign, object, or interpretant of the former (say, to a given semiotic agent, as tokens, or to a given semiotic community, as types). The two semiotic processes in question may relate to each other *spatially* (e.g., elements in the same situation), *temporally* (e.g., elements in the same sequence), and *categorically* (e.g., elements of the same type), *inter alia*. (Where what counts as a situation, sequence, or type is itself subject to various framings, by both actors and analysts alike.) Moreover, they may *incorporate* each other (being related as part to whole, or means to end), *create* each other (being related as cause to effect, or process to product), and more generally *complement* each other (being related as item to accessory, lock to key, hand to handle, and so forth), *inter alia*. (See Table 4.2.) Typically, the same semiotic process is contextualized by many other semiotic processes and, in turn, contextualizes many other semiotic processes (any of which can relate to it at various degrees of spatial, temporal, or categorical remove). Such co-contextualizing relations among semiotic processes, and the

TABLE 4.2

Types of Embedded Interpretants

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, a wheel incorporates a spoke.
Creation	For any two semiotic processes, A and B, A will be said to *create* 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) creates a pie (as an instrument with a function), and thus a pie is an interpretant of baking.
Complementation	For any two semiotic processes, A and B, A will be said to *complement* 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.

meaningful coherence they both enable and constrain, is what should be meant by *holism* in the hermeneutic sense.

Take, for example, an instrument (such as a hammer). What seems at first to be merely a "thing" is really a semiotic process: The sign is the assemblage of wood and steel; the object is the function such an assemblage serves; and the canonical interpretant is an action (itself an incipient semiotic process) that wields the sign (form) for the sake of the object (function). While the sign component is relatively fixed, the object and interpretant components are relatively fluid—their meaning is dependent upon other contextualizing semiotic processes. In particular, whoever interprets the sign-object relation (say, by wielding the hammer while undertaking an action) does so in a larger context—and their comportment is usually both shaped by, and shaping of, that context—a process referred to as *regimentation as sieving and selection* in chapter 3.

Looking back in time, the function of a hammer is partially determined by the roles and identities of the actors, as well as the purposes of the actions, that created it. For example, who designed and produced it, and why it was designed and produced. Looking forward in time, the function of a hammer is partially determined by the purpose of the action that wields it as well as the role and identity of the actor who undertakes that action. For example, a carpenter making a chair, a handyman making repairs, or a factory worker making widgets.

Looking at the wider situation, the function of a hammer is partially determined by the other instruments that complement it, for example, the function

served by nails and benches, gloves and garages (not to mention the purposes, roles, and identities of the actors who create or wield these). And the function of a hammer is partially determined by the purchases and functions of the affordances and instruments that it incorporates; for example, the handle and head of the hammer, and the wood and metal these are made of.

Finally, looking across possible worlds (say, as potentially navigated by those who inhabit this one), the function of a hammer is partially determined by the other instruments that might substitute for it—insofar as they serve similar functions or provide comparable purchases. For example, a club, a ball-peen hammer, a screwdriver held upside down, a length of pipe, a pneumatic punch, and so forth. In this way, contextualization may be temporal, spatial, and categorical (*inter alia*); and, concomitantly, it may turn on creation, incorporation, and complementation (*inter alia*).

(Note that such contextualizing semiotic processes not only constrain the use-value of the hammer [not to mention its "truth value," or conceptual content, as a referent in the representational whole], but also its value and exchange-value. Recall, for example, our discussion of commodities as semiotic processes from chapter 3. In particular, the price of an instrument is, among other things, partially determined by the price of the instruments and affordances it incorporates, partially determined by the price of the instruments and actors [or "labor"] that went into creating it, and partially determined by the price [and existence] of other instruments and actors that complement it.)

To go back to our original model of significant objects and selecting agents from chapter 2, within such a framing the sensible sign is the hammer (qua assemblage of wood and steel), and the instigated interpretant is the action that wields the hammer (say, by hitting a nail). As we have just seen, both the features of significant objects (say, the purchases and functions of "things") and the interests of selecting agents (say, the statuses and values of "persons") are contextualized by other semiotic processes (involving other objects and agents, signs and interpretants, sensations and instigations). In this way, semiotic processes enable and constrain, and thus they "select" and "sieve," each other.

In short, to understand the meaning of any affordance (purchase), instrument (function), action (purpose), role (status), or identity (value), both actor and analyst alike must take into account (however tacitly) other contextualizing constituents and, hence, the meaning of other affordances, instruments, actions, roles, and identities. Such constituents relate to it by processes such as creation, incorporation, and complementation. Such relations are evinced on different temporal, spatial, and categorical scales—themselves constituted by, and constituting of, the features of objects and the interests of agents. And, as we saw in chapters 1 and 2, such indexical relations are themselves the figured, and potentially reconfigurable, precipitates of framing processes, which are themselves modes of residence in, and representations of, the world. *Actions*—as flowing from sensation to instigation and

from instigation to sensation—seem to stand at the center of all these processes (a point we will return to).

OBJECTS OF RESIDENTIAL WHOLE ARE NONOBJECTIVE AND NONOCCURRENT—YET PERFECTLY PERCEIVABLE

What is the nature of the objects of these semiotic processes—those purchases, functions, purposes, statuses, and values? Semiotically speaking, as per the ideas of chapter 3 and as shown in the example above, the object of any such constituent may be framed as that which organizes (and is organized by), or more generally mediates, the range of appropriate and effective (normative), or feasible and efficacious (causal), interpretants of that sign (to a particular semiotic agent or semiotic community, given a particular ontology). Framed another way, the object of any such constituent may often be usefully understood as a correspondence-preserving projection from all normatively and causally regimented (or relatively coherent) interpretants of that constituent—as evinced in the sanctioning practices of a community, as embodied in the dispositions of its members, as embedded in an environment of other such constituents, as enminded in the representations of the inhabitants of this environment, and so forth. Moreover, this may be true both at the level of tokens (say, the particular function of an instrument as wielded by a particular semiotic agent) and at the level of types (the typical function of an instrument as caught up in the practices of a semiotic community). 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 (or "motivated") as it is indexical-symbolic (or "arbitrary"); it implies that regimentation may turn on causes as much as norms; and it means that residence in the world is as embedded as it is embodied.

That said, as we saw in chapter 3, the distinction between norms and causes, like the distinction between motivated and arbitrary meaning, is usually far too simple-minded to understand modes of residence in, and representations of, the world (even if it often serves as a useful shorthand). In its stead, as per our above example of a hammer, throughout this chapter and the next we focus on incorporation, complementation, and creation (on spatial, temporal, and categorical scales) as ubiquitous modes of inferential and indexical contextualization that regiment the actual meaning of any particular semiotic process. Such modes of contextualization both reflect and regiment the ontologies of those who reside in and represent such worlds.

If the five constituents are semiotic processes, whose objects may be framed as correspondence-preserving projections (and, hence, are relatively "nonobjective") and whose interpretants are often other such constituents (and, hence, as "objective" as any sign), then the objects—though at first seeming to be the 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 nonperceptible entities, these are non-nonsensical questions.[3] Rather, the only evidence one usually has for the existence of such objects are the signs that express them and the interpretants these create—most typically, the constituents of the residential whole themselves. That is, signs and interpretants may be thought of as sites where objects surface.[4] Indeed, and only somewhat paradoxically (given the intense iconic-indexicality of their grounds), such signs and interpretants are essentially *pictures* of their objects.[5] (Where the objects pictured don't exist except as pictured!) Phrased another way, the world, as sign, is its own best interpretant (and object).

This claim is itself a critique of the relatively inferential theory of kinds (such as social statuses, mental states, and material substances) that was offered in chapter 3. Here, with context fully restored, we see that "inference" in the strong cognitive and logical sense may be overrepresented. If signs (and sign-interpretant relations as signs) are highly iconic (as well as indexical), we are, in effect, often directly "perceiving" (or rather "experiencing") purchases, functions, purposes, statuses, and values. As will become more and more clear in what follows, not only are we generalizing some of Edward Gibson's ideas (from affordances to residence in the world more generally), we are also reframing them (from environmental psychology to semiotic ontology). In any case, as we saw in chapter 1, the word *interpretation* may be used to refer to a range of processes, which include processes such as (so-called) direct experience and indirect inference at the extremes.

PROCESSES THROUGH WHICH OBJECTS BECOME "OBJECTIVE" AND "OCCURRENT"

Just as objects are relatively *nonobjective* (from the analyst's point of view), they also tend to be relatively *nonoccurrent* (from the actor's point of view). That is, discursively they may not be a topic of conversation, phenomenologically they may not be a focus of consciousness, and cognitively they may have no propositional content. In other words, just as the constituents themselves (affordances, instruments, actions, roles, and identities) are often put in the background as "context" for other, more stereotypic semiotic processes (such as speech acts, and discursive moves more generally), so too are the objects of these constituents (purchases, functions, purposes, statuses, and values) often elided from actors' and analysts' reflection. In some sense, if they are framed at all, they are framed as being-out-of-frame, or framed as frame, and thus ground rather than figure. This is not because they are too far away from experience; rather, it is because they are too close. In some sense, they are to humans what water is to fish: the medium through which we sense and instigate and, concomitantly, that which organizes our signs, interpretants, objects, and agencies.

Nonetheless, these objects, and the relations between relations that constitute them, may become objective or occurrent by many routes—sometimes becoming

distorted, or misinterpreted, in the process. Recall Table 3.3. For example, there are *disturbances* (malfunctions, mistakes, glitches, etc.) that bring objects to the fore, making them topics of discussion or foci of consciousness. Hammers can break or go missing, be too heavy to handle or too poorly designed to function well, and so forth. Heidegger (1996 [1927]) was perhaps the foremost theorist of such objectification through disruption. In particular, he argued that the kind of consciousness that arises in the context of failure leads to a misrecognition of the nature of the "functioning" that was there before the failure. In particular, rather than being framed in its own terms, residence in the world gets figured in terms of representations of the world.

Such objects can give rise to relatively *objective interpretants*. For example, an action can create an instrument, thereby objectifying the purpose of the action in the instrument. Indeed, much of the built environment, qua instruments, as well as the institutional environment, qua roles, may be framed as objectified purpose in this sense (itself thereby causally and normatively regimenting the future actions of those who inhabit such environments). Recall our discussion of regimentation by infrastructure in chapter 3.

There is *performance*: 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 wields a hammer to (covertly) inform another of one's purpose or status (rather than, or in addition to, driving a nail through a board). In this way, they are caught up in the third dimension of practical agency (commitment) and Veblenesque and parasitic processes more generally.

Such objects can have *conceptual content* conferred upon them by propositional signs of the representational whole. For example, there are words and concepts that refer to them (*tree*, *glove*, *slap*, *mother*, and *Armenian*) as well as sentences and beliefs that represent them (*my Armenian mother slapped the tree with her glove*). In this way, they are caught up in the particular indexical and inferential articulation of mental states and speech acts, and theoretical agency more generally.

And finally, perhaps concomitant with the foregoing processes, such objects may be implicated in *theoretical representations*, *empirical observations*, and *practical interventions*—thereby becoming the relatively figured "objects" of scientific theories, laboratory analyses, and technological practices. For example, any attempt to ascertain the values of another people (e.g., friends or enemies) or the chemical purchases provided by a novel substance (e.g., poisonous or profitable) may partake of this mode of objectification. The social and natural sciences often do precisely this. Indeed, the disciplinary regimes that interested Michel Foucault—prisons, factories, clinics, and sanitariums—were devoted to all of these modes of objectification at once. In some sense, such regimes were institutions devoted to disclosing and enclosing, having practical and theoretical agency over, a particular frame-of-life, with its particular modes of residence in the world and its particular ways of representing the world; concomitantly, such regimes were themselves frames-of-life.

WHY ARE THERE FIVE CONSTITUENTS? THE NATURAL KINDS OF SOCIAL CONSTRUCTIONS

Why is the residential whole composed of *five* constituents and not some other number, say, three or seven, one or ten? For example, one could make further divisions and produce more constituents. 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 that refer to and, hence, confer propositional content upon the constituents of the residential whole. For example, as we saw above, there are words such as *tree* and *cliff* (affordances), *hammer* and *ax* (instruments), *run* and *walk* (actions), *husband* and *daughter* (roles), *Mormon* and *Armenian* (identities). These form a key site of intersection between, or entanglement of, residence in the world and representations of the world.

Ontologically, they are often privileged kinds: semiotic processes implicated in many different norms and causes, or coherently contextualized by many other semiotic processes and, hence, acquiring a kind of facticity, such that all of their components may become types: legi-signs, legi-objects, and legi-interpretants. Berger's and Luckmann's (1967) notion of typification, and Brandom's (1979) notion of sorts, are related concepts.

Phenomenologically, they have an intuitive or "experience near" status, which is, of course, implicated in their lexical and normative status. In this way, there is arguably nothing obscure about these semiotic processes, in any semiotic community or at any point in human history.

Anthropologically, they constitute a subset of the basic theoretical building blocks and descriptive metalanguage that any particular ethnography or general theory of sociality must be articulated in terms of. For example, it may be argued that Evans-Pritchard's (1969 [1940]) description of modes of livelihood and political structure among the Nuer, by tacking between structural and oecological levels, tried to account for local behavior in terms of the purchases, functions, purposes, statuses, and values of a particular semiotic community. Thus, he accounted for local modes of residence in the world (as well as local representations of the world). To give another example, one aspect of archaeology that makes it so captivating and challenging is (at least stereotypically) its attempt to learn from the affordances and instruments of another people and, in particular, the material traces of the sign-components of such semiotic processes (qua "built environment" or "material culture") their actions, roles, and identities (not to mention their beliefs, desires,

and intentions). Finally, classic debates (Marx versus Weber), as well as vulgar ones (nature versus nurture), may be understood as arguments as to which kind of constituent (or cluster of constituents) is more determining than others and, hence, should have the upper hand in our understandings and explanations of human behavior. For example, do certain affordances more or less condition identities, do certain modes of residence in the world more or less condition certain representations of the world, and so forth.

Epistemically, these constituents have the structure of an ideal type (Weber 1949 [1904]). Thus, they should be judged for their usefulness, not their truthfulness, and they should be used to generate caveats and counterexamples rather than held onto tightly as claims. Moreover, as theoretical terms, their conceptual structure is prototypic rather than classical. Thus, the definitions given of them above, and in what follows, should be understood not as necessary and sufficient criteria, but rather as conceptual stereotypes with leeway and give.

And *practically*, five constituents is a middle way, providing gradation without degradation. In short, it is tempting to call the constituents of the residential whole *basic kinds* of social theory: they might have been chosen so that the number of characteristics shared by tokens of each type is maximized and the number of characteristics shared across types is minimized.[6]

Finally, it cannot be emphasized enough that these five constituents, as kinds, reflect the (meta-) ontology of this author. And thus all the caveats and claims about kindedness elaborated in chapters 1 and 3 are operative here. In particular, we are for the moment leaving aside ways in which residence in the world is entangled in representations of the world and, in particular, the way local ontological categories (and, in particular, representational interpretants) mediate and frame such basic kinds—in part, reflecting them, in part, regimenting them, and, in part, redrawing them.

WHAT ORDERS THE FIVE CONSTITUENTS? AN ONTOLOGICAL CONTINUUM

Why order the five constituents of the residential whole in this way, with affordances on one end, identities on the other end, and actions in the middle? Indeed, why can they be projected onto a single dimension at all? In part, it is because of the relative inclusion of incorporation (as one kind of embedded interpretant discussed above): Affordances may be incorporated by instruments, instruments may be incorporated by actions, actions may be incorporated by roles, and roles may be incorporated by identities. Given the way incorporation was characterized, this form of interpretation maintains a loose means-ends hierarchy in the domain of objects and a loose part-whole hierarchy in the domain of signs. That is, for any two terms on this scale (affordance < instrument < action < role < identity), the term on the left may relate to the term on the right as means to ends and part to whole.

In this light, and with many caveats that will be discussed below, affordances and identities are at the poles of an ontological continuum. In particular, affordances

are stereotypically constituted by a kind of ontological bottoming out—means that are not themselves ends, qua "nature," "object," or "thing." Similarly, identities are stereotypically constituted by a kind of ontological topping in—ends that are not themselves means, qua "culture," "subject," or "person." Action, as we saw earlier, is indeed somewhat special in its being ontologically centered—both incorporating of affordances and instruments, qua ends, and incorporated by roles and identities, qua means. Again, the caveats to these claims are more important than the claims themselves. Like any other ontology, this meta-ontology is itself provisional and provincial.

UPGRADING AND DOWNGRADING ALONG THE CONTINUUM

For example, any constituent can be bumped up or down this ontological continuum, or reframed more generally, in a variety of ways. Perhaps most famously, any instrument may be reduced to its affordances or heeded for the purchase it provides rather than wielded for the function it serves. For example, we may use a book to prop open a door, a hammer to weight a plumb-line, or a screwdriver to serve as a knife.

Similar processes, often historical in nature, may simply transform the function of a given instrument, however unconsciously. For example, 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'être, or "intended function," of the old form. Maine (2004 [1866]), in his *Ancient Law*, and Nietzsche (1989 [1887]), in his *On the Genealogy of Morals*, made much of this point.

And, 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, or the possible purchases of that affordance of affordances, the human body. Not to mention creative functions for everyday items, such as candlesticks and candy, as well as novel statuses for spouses and valets and even novel values for nobles, for example, *sadism*.

As will be argued in chapter 6, 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 Irish (or Korean, and so forth, depending on who "one" happens to identity with).

In all of these ways, the object-token of some constituent (for some semiotic agent) may not be a replica of the object-type (in some semiotic community) but perhaps be a singularity altogether. Indeed, it may have a semiotic object that is normatively associated with a different constituent altogether (e.g., a controlled behavior may be treated as a sign of the value underlying an identity rather than of the purpose underlying an action).[7] As we saw in chapter 2, Veblen's (1971 [1899]) account of pecuniary emulation is just one of the ways this comes about: the instrument realized by an action (if relatively permanent and public) comes to stand for,

or publicize, the identity of the actor, and subsequently becomes sought for the sake of this publication (rather than its original function).

Also important is the process whereby one identifies with a role, coming to treat it as more important, or context-dependent, than any other role—its object more like a value than a status. Relatedly, a particular role may become the emblematic sign of an identity, say, the role of father in a given religion. And, more generally, any action (e.g., pilgrimage or question), instrument (e.g., weapon or uniform), or affordance (e.g., place or climate) may become the emblematic sign of a role or identity.

Just about any constituent can be instrumentalized—or designed, produced, or wielded—for the sake of its use-value, or function. And, perhaps more often, it may even be manufactured or sought for the sake of its exchange-value, or price. Indeed, as we saw in chapter 2, this process is perhaps the most pervasive kind of revaluation that instruments, as well as other constituents, may undergo.

Finally, one may parasitically exploit the purchases afforded by some mode of residence in the world: relating, at one or more degrees of remove, to others' modes of heeding affordances, wielding instruments, undertaking actions, inhabiting roles, and fulfilling identities. Hackers do this, as do ninjas, pirates, assassins, skateboarders, arch-capitalists, flimflam artists, and anthropologists. Indeed, part of what makes these figures so interesting is that the values of their identities are often framed in terms of such parasitic processes. And, more generally, any human actor, with some degree of practical agency (especially commitment) over the semiotic processes they are implicated in, does this constantly, if only in dramatizing this or that role. Thus, many modes of strategy and artistry, to say nothing of deception and insincerity, turn precisely on such processes.

In short, our ontological continuum, which at first looks like a one-dimensional line, is really a thread, itself subject to fraying, knotting, and netting, and out of which the cloth of human conduct is stained, stolen, and torn as much as woven and worn.

COHERENCE AND INCOHERENCE; WHOLES AND PARTS; SEMIOTIC COMPENSATION AND SCALE

As its name suggests, the residence in the world is fundamentally governed by *holism*: The meaning of any constituent in the whole is enabled and constrained by its contextual relation to the meaning of many other constituents in the whole via embedded interpretants turning on incorporation, complementation, and creation, which themselves reflect and establish significant and selective (as well as sieved and serendipitous) relations at different temporal, spatial, and categorical scales. 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*.

Crucially, *incoherence* is the flip side of coherence. And just as it is easy to find too much coherence, it is easy to find too little. Indeed, as a function of how

coherent or incoherent any whole seems to be (to a given analyst or actor), different metaphors have been invoked to describe it: structure (Saussure), tapestry (Margaret Mead), pattern (Sapir), quilt (Lacan), octopus (Geertz), rhizome (Deleuze and Guattari), mangle (Pickering), network (Latour), assemblage (Callon), or patchwork (see chapter 6). In many 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 size of parts and wholes, or the designation of the local vis-à-vis the global, is an analytic decision, and mode of framing). Indeed, oftentimes a situation can simply be reframed, or rescaled, for coherence to be restored or discovered. Moreover, our only real evidence of coherence is often *failure-to-cohere* or, more specifically, the failure of one or more constituents to incorporate, create, or complement other constituents (and vice versa). And, to be sure, semiotic agents (and their observers) are prone to *semiotically compensate,* often evincing a seemingly unjustified will to coherence that is closely related to fetishization (and is itself subject to processes such as ontological strain and leakage).

Indeed, part of the lesson of chapter 3 was that any *interaction* is both grounded in and generating of more or less locally centered, more or less globally extended, and more or less intersubjectively shared swatches of coherence: both what counts as context (qua ground) and how a move or semiotic process (qua figure) relates to, or is entangled with, such context. (Where, it may now be emphasized, the semiotic process in question can be the heeding of an affordance or the fulfilling of an identity, as much as the making of an utterance or the taking of a turn.) And, as we saw in chapter 3, and will see again in chapter 5, such a claim is no less true for the residential whole than it is for the representational whole.

Moreover, there are many different wholes as a function of the analytic criteria used to establish such part-whole relations. In particular, wholes typically exist at different nested and nesting levels of structure, which do not so much scale in space, time, and category as provide the scales for spatiality, temporality, and categorization. In particular, one might minimally distinguish between the following nested and nesting wholes (or parts): a *residential whole,* such as a culture or semiotic community (grounded in an era, semiotic community, or semiotic commons); an *institutional whole,* such as a family or corporation (grounded in a generation, discipline, or generalized other); a *situational whole,* such as a workshop or bedroom (grounded in a place or activity); a *joint-attentional* or *intersubjective whole*, such as a communicative interaction (grounded in a we-here-now); and an *experiential* or *subjective whole*, such as an individual-centric swatch of the residential whole (grounded in an I-here-now). For example, infrastructure (as well as institutions and channels), in its vernacular sense, may be understood as that which is designed to distribute and facilitate (as well as staunch or eradicate) certain kinds of coherence across space, time, person, and possible worlds (if only within the confines of the infrastructuring system itself), thereby enabling certain modes of residence in the world (and representations of the world) and constraining others.

Different kinds of analysis have traditionally foregrounded different kinds of wholes, and then scaled up, down, or across them to generate their insights or make their arguments, often tacking between residential wholes, or radically different worlds, that come to resonate, overflow, and intersect as much as invade, conquer, and kill. Such epistemological enclosures, or wholes, are thus simultaneously analytic and synthetic, and they themselves constitute a key mode of semiotic framing (as per our discussion in chapter 2). Note, then, that ethnographers, and critical theorists more generally, will always be precariously positioned: on the one hand, they seek to interpret local modes of enclosure and disclosure and, on the other hand, their interpretations at once enclose and disclose (Kockelman 2007a).

EMBEDDEDNESS, COUPLING, COMPLEMENTARITY, COINTERPRETATION, AND INTIMACY

Embeddedness—or "worldliness" as it is sometimes called—has a variety of important and interrelated entailments.[8] To review, there is *holism*: The meaning of any constituent is determined by its relation to other constituents within some whole. And there is *motivation*: Most of the constituents of the residential whole have iconic-indexical grounds such that "context" (meaning other such constituents) both evinces and regiments, is both condition for and consequence of, how they are to be interpreted.

As a function of these first 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); rather, one usually finds it embodied within one and, in particular, embedded around one.

This point implies that an organism and its environment are maximally *coupled* (a point made in chapter 2): 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. Phrased another way, one's comportment is complex precisely because the environment in which one comports is complex.

There is *complementarity*: Purchases, functions, purposes, statuses, and values stand at the intersection of the organism and its environment. That is, characteristics of both the organism and the environment (not to mention characteristics of other organisms within the environment, as well as other environments with other organisms) must be specified for these constituents to make sense. More strongly phrased, and in the idiom of chapter 2, there are no organisms and environments, only framed and framing envorganisms or life-frames and frames-of-life.

There is *intimacy*: We organisms *are* our affordances, instruments, actions, roles, and identities, and the environment *is* other (and *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.[9] 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. For example, each time one heeds an affordance or wields an instrument, one is offering an interpretation or providing a signification of oneself—one's own affordances and instruments (and one's own actions, roles, and identities). Each of these processes will be further explored in the sections that follow.

THE RAW, THE COOKED, AND THE OBVIATED

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." While this chapter doesn't have any particular stakes in conflicts over these dichotomies, the foregoing points, as well as the longer discussions in chapters 1 and 2, should have long since destabilized such simple-minded, and hopefully obviated, distinctions. In particular, as just seen, conceptual structure, or propositional content more generally, is not required for meaning: most objects are not inferentially articulated; the grounds of most semiotic processes are not symbolic, but rather iconic-indexical; and most signs, while often selected, are not intentionally expressed for the sake of their interpretants. This is not to say that the distinction between representations of the world and residence in the world is not important; it is to say that the meaningful mediation of affordances, instruments, actions, roles, and identities has not received nearly enough attention from a semiotic stance (though it has received no end of attention from a phenomenological stance, which itself never really had an adequate theory of meaning, as we saw in chapter 2 during our discussion of Heidegger). More generally, there is no presemiotic or unmeaningful domain of experience; the residential whole, in conjunction with the representational whole, is all there is to experience. Indeed, with certain caveats, it *is* experience just as much as it is *the world*.

2. Heeding Affordances

An affordance is a semiotic process whose sign is a natural feature, whose object is a purchase, and whose canonical interpretant is an action that heeds that feature insofar as it provides purchase. To say the sign-component is a natural feature is to say that it consists of a more or less complex assemblage of relatively perceivable qualities that was not itself assembled for the sake of the purchase it provides. Such a natural feature is said to provide purchase insofar as it enables or constrains certain actions, however directly or indirectly. While affordances are highly significant semiotic processes, they are thus minimally selected and minimally symbolic. In what follows, each of these criteria will be unpacked, qualified, and expanded.

THE SIGN-COMPONENT: MODALITY INDEPENDENCE; PERCEPTION AND INFERENCE; NATURAL FEATURES

As for the sign-component, the qualities in question need not be visibly perceptible. While affordances are stereotypically associated with vision via the seminal work of Gibson (1986 [1979]), they are not meant to be limited to any particular mode of perception: vision, audition, gustation, olfaction, and tactition, inter alia. Moreover, we are also being relatively noncommittal as to whether an interpreting agent directly perceives or indirectly infers the purchase provided by such a natural feature. It may be more or less directly iconic-indexical of the actions it enables or constrains (as per our discussion of the perceivability of objects in section 1) or it may be more or less indirectly iconic-indexical (as per our discussion of material substances in chapters 1 and 3). For the moment, we will assume there is a continuum of possibility.

As for selection, the point is not that the natural feature is "natural" in the stereotypic sense (qua untouched by human intention); the point is that it was not designed or built for the way in which it is being used. More carefully phrased, the sign of an affordance is not the creative 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). Nor do affordances incorporate other affordances (in the technical sense of incorporation): They may include them (as the result of natural composition or happenstance), but they are not an interpretant of them (as the creative interpretant of some human action). This means that while affordances are signs (that can be subsequently interpreted), they are not usually interpretants (of signs that were previously signified).[10] Hence, their position at the "bottom" of our ontology, qua means that were not themselves ends.

THE OBJECT-COMPONENT: PROVIDING PURCHASE; ENABLING AND CONSTRAINING ACTION

In everyday terms, the *Oxford English Dictionary* (second edition, 1989) provides one useful description of a purchase: "Hold or position for advantageously exerting or applying power." As used here, a purchase might be loosely understood as the way in which a natural feature (or sign) either directly or indirectly enables or constrains an organism's actions, allowing or disallowing them from exerting power, permitting or prohibiting various modes of behavior, or providing organism-specific succors and perils. In this way, a purchase is constituted as much by the possibilities for action that it opens up as by the possibilities for action that it closes off. In particular, the purchase provided may include "lack-of-purchase." As will be shown below, while we tend to focus on relatively purposive energetic interpretants (or actions), affordances may enable or constrain any other kind of interpretant. And while we tend to focus on more or less causally regimented interpretants (especially for nonhuman animals), affordances are also caught up in normative regimentation

(as well as all the other modes of regimentation discussed in chapter 3 that do not fit easily into either of these two categories).

It is sometimes useful to understand a purchase as a certain sort of kind: the (projected) propensity of a perceivable feature, or any of its iconic indexical accompaniments, to enable or constrain various modes of action (or semiotic processes more generally). Indeed, the material substances theorized in chapters 1 and 3 can themselves be understood as affordances: the natural feature is the property perceived and the purchase provided is the bundle of other properties the substance has insofar as these constrain or enable the actions of the interpreting agent. Typically we use the idiom of material substances (with properties) when we are dealing with relatively inferential processes (or theoretical agency more generally, qua representations of the world), and we use the idiom of affordances (with purchases) when we are dealing with relatively experiential processes (or practical agency more generally, qua residence in the world). This is another site where residence in the world and representations of the world are most transparently entangled, and where the same process may be framed in terms of one or the other. (And similar kinds of framing shifts are possible with the other constituents of the residential whole, as well as with the other sorts of kinds.)

FRAMING NON-AFFORDANCES AS AFFORDANCES

As we saw in section 1, any other constituent of the residential whole, or selected sign more generally, can be reduced to an affordance insofar as it is parasitically co-opted for the purchase it otherwise provides. Indeed, even the actions of others can be reduced to affordances: their controlled behavior is the natural feature, their purpose is the purchase, and one heeds their behavior insofar as it provides purchase (by having purpose): one avoids it, lies in wait, springs a trap, speculates, sells tickets, engages in participant observation, and so forth. Humans do this all the time in making traps for animals (as well as feeders and shelters). Moreover, we (mis-) use instruments for their affordances. Skateboarders, for example, are notorious for finding skateboard-specific purchases in the built environment—sidewalks, handrails, empty pools, and so forth. Indeed, this willful reduction of the built environment to a set of affordances that complement the function and purchase of polyurethane wheels of a particular diameter and durometer may be a defining value of their identity.

THE GROUND OF AFFORDANCES: CAUSAL REGIMENTATION AND CONTEXTUALIZATION

Semiotically speaking, the purchase of an affordance is an object and, hence, may often be framed as that which organizes the range of appropriate and effective (normative), or feasible and efficacious (causal), interpretants of that sign (to a given semiotic agent or community and within a particular ontology). As shown

in section 1, what counts as appropriate and effective, or feasible and efficacious, is determined by many interrelated factors, as a function of that affordance's embedding in the residential whole (not to mention the representational 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). But other constituents serve as embedded interpretants as well.

Insofar as the purchases of affordances are holistically determined (as well as ontologically mediated and frame-dependent) 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, or maximally "motivated" and minimally "arbitrary." In terms of sanctions, or the regimentation of interpretants of affordances, this means that norms involving affordances are maximally regimented by causes (if they operate at all). In this way, an interpretant's being appropriate and effective may often be phrased in terms of being feasible and efficacious, mod various degrees of ontological strain and leakage (as well as the host of caveats discussed in chapter 3). 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 ensures 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 themselves holistically determined by functions, purposes, statuses, and values (as well as other purchases, and the constituents of the representational whole, more generally), and insofar as such objects are themselves determined by the semiotic 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 (or, indeed, obviation of the organism-environment divide, as was argued in chapter 2).

For example, the exact same swatch of wall space may provide very different purchases depending on the purpose of one's action (hanging an emergency exit sign versus scrawling obscene graffiti), depending on the status of one's role (civil engineer or gang member), depending on the value of one's identity (family man versus rebellious teenager), 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, camping or hunting. 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 section 1. Here, however, 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, in particular, *others*') affordances, instruments, actions, roles, and identities.

THE INTERPRETANTS OF AFFORDANCES: BEYOND THE ACTIONS THAT HEED THEM

The interpretants of affordances are manifold. Insofar as an instrument incorporates an affordance, the former is an interpretant of the latter. For example, a rolling pin is an interpretant of wood, and a wall is an interpretant of rocks and mud. 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, and spitting is an interpretant of saliva (and gravity and wind, not to mention lips and lungs). Indeed, while ice skating (as an action) is itself an (energetic) interpretant of the purchase provided by ice, the skates themselves (as instruments) are embedded interpretants of this same purchase. In a world without ice, ice skates would literally "make no sense." More generally, any instrument, action, role, or identity that turns on, or presumes, the existence of an affordance is an interpretant of the affordance. For example, the role (or identity) of a rock climber is an interpretant of mountains just as the role (or identity) of a scuba diver is an interpretant of the sea. (Indeed, various emblematic signs, qua actions, of such roles and identities are often precisely modes of heeding such affordances.) In short, if an interpretant is whatever a sign gives rise to insofar as it stands for an object, than the relation "gives rise to" may be understood in a variety of ways: from directly creating to being a condition of possibility (or intelligibility) for.[11]

The representational interpretants (or signs with propositional contents) of affordances are also 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 purposely created, because they are often continuous rather than discrete, and because they are often fixed rather than portable. One typically notices purchases only when something affords no purchase—or, rather, when a feature's purchase is what it prohibits or constrains (rather than permits or enables). Indeed, there exists a multitude of widely addressed signs with propositional content that turn on the existence of prohibiting or perilous purchases: not only *hot*, *flammable*, and *sharp*, but also *soft shoulder*, *slippery when wet*, and *harmful if swallowed.*

Finally, while the focus here has been on embedded interpretants in the residential whole, or lexical interpretants in the representational whole, the interpretants of affordances, like any other constituent, include any kind of sign more generally. Two interpretants, in particular, are salient here: affective interpretants (or "feelings") and ultimate affective interpretants (or "moods"). In particular, many affordances (such as blood, dirt, alleys, and caves) lead to affective responses (such as

disgust, fear, desire, and anxiety), often because of actions the same natural feature would afford other kinds of identities (such as robbers and assassins). Moreover, these reactions may themselves be directly tied to various roles and identities—to whom something can be construed as dirty or desirable, delicious or disgusting. To understand such interpretants properly, they need to be grounded in a theory of the self, and in a wider understanding of affective unfoldings, as will be undertaken in chapters 5 and 6.

THE HUMAN BODY AS AFFORDANCE AND INSTRUMENT

The human body relates to affordances and instruments in a number of complicated ways. In particular, the human body is itself somewhere between a nexus of affordances and a nexus of instruments (not to mention a nexus of actions, roles, and identities). It is somewhere between because, in a particular framing, it is partially constituted by relatively natural features with purchases, and it is partially constituted by relatively artificial entities with functions. (And all the more so with artificial extensions of the human sensorium and instigatum, or media more generally.) Moreover, as noted in the introduction, any interpretant of an affordance or instrument (say, the action of heeding or wielding it, respectively) *cointerprets* and *cosignifies* the affordances and instruments of the body—its purchases and functions. The hand must meet the handle halfway (except, of course, when it doesn't—with jammed knuckles or dropped tools as a result). And finally, one might go to the extreme, as we did in chapter 2, and say that the human body is a phylogenetic interpretant of the earth's affordances (as well as of other humans' bodies: Breasts and mouths, for example, are in part phylogenetic complements of each other). In this way, not only does the causal order regiment the feasibility and efficaciousness of interpretants of affordances, but also it can do that in interactional time (regimenting the behavior and demeanor of an individual), in historical time (regimenting the practices of a community), or in phylogenetic time (regimenting the phenotype of a species). This should serve as a useful reminder that many, if not most, affordances are caught up in, if not constituted by, processes of significance and selection—just not necessarily on the human-specific interactional and intentional time scales being foregrounded here.

ANIMALS BEHAVE PURPOSIVELY AND EXPERIENCE PURCHASEFULLY

Gibson's use of affordances was meant to characterize what any animal (as a sentient and animate entity) finds in its environment, and so it is worthwhile hypothesizing how affordances differ, *relatively speaking* and *from a particular frame*, depending on whether the animal in question is human or not. In particular, for the simple reason that (nonhuman) animals are less likely to create instruments, they are less likely to incorporate affordances into instruments. While classic borderline cases include bird nests and beaver dams, these are only the most obvious examples.

The affordances of animals are minimally regimented by norms (in the sense of sanctions imposed by others as a function of their judgment as to the propriety of one's actions). Domestic animals are interesting exceptions, as are captive chimps. Perhaps most importantly, animals do not have representational interpretants and, hence, do not confer propositional content upon affordances (in the strong logical and linguistic sense discussed in chapter 3). In this way, the purchases of affordances for animals are not inferentially articulated and, hence, are always "given." And finally, insofar as human instruments, actions, roles, and identities are much more varied and numerous than those of other animals (if present among animals at all), the affordances we find are much more variable, numerous, and group-specific. Crucially, none of this entails that animal behavior is meaningless or noncognitive: 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. In short, as framed here, all animals experience purchasefully just as they behave purposefully, and thus comport meaningfully.

3. Wielding Instruments

An *instrument* is a semiotic process whose sign is an artificed entity, whose object is a function, and whose canonical interpretant is an action that wields that entity insofar as it serves that function. To say the sign component is an artificed entity is to say that it consists of a more or less "objective" assemblage of affordances (and other instruments) that was itself assembled for the sake of the function it serves. And such an artificed entity is said to serve a function insofar as it relatively directly (causally) or indirectly (normatively) brings about certain effects in the world when wielded in certain ways. While instruments are thus similar to affordances in many respects, they are also relatively selected and symbolic (on human-specific interactional and intentional scales).

THE SIGN-COMPONENT: ARTIFICED ENTITIES

Saying that the sign-components of instruments are artificed entities explicitly contrasts them with the sign-components of affordances, which are natural features. By *entity* is meant that the sign is relatively "objective." For example, borrowing notions from Gibson (1986 [1979]), the sign-components of instruments tend to be continuously present to the senses, detachable (from context), portable (across contexts), and handy (relative to the dimensions and capacities, or size and strength, of humans). Nonetheless, it should be stressed that the notion of entities as "objective" is just a stereotype: many instruments, from computer programs (and any of their subroutines) through infrastructure in the stereotypic sense to artificial snow, do not have this characteristic. Indeed, at the extreme of what may be called an

instrument is a realized state (state-change or event). For example, one might use a boulder to break down a wall and then use the broken-down wall as an instrument (qua "means") to storm a building. In this way, instruments can be singularities as much as replicas, fleeting events as much as stable "objects," the products of "labor" and "action" as much as of "work."

By *artificed* is meant that the instrument was created by an action, where this action had as its purpose the pairing of the artificed entity (as a sign) and its function (as an object) such that the creating agent commits to certain usages (qua interpretants) of this form (qua sign), thereby conferring a particular function (object) on it. For example, a pot is the created interpretant of the action of throwing clay, and a pie is the created interpretant of baking. Relatedly, unlike affordances, instruments often incorporate affordances (in the guise of "raw materials") and other instruments. For example, hammers incorporate affordances such as wood and metal, bicycles incorporate instruments such as seats and wheels, and so on. 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 affordances and instruments they incorporate and the actions that created them.

THE OBJECT-COMPONENT: SERVING A FUNCTION; ENABLING AND CONSTRAINING ACTION

In everyday terms, a function usually refers to what an instrument was designed to do. For example, the *Oxford English Dictionary* (second edition, 1989) provides the following description: "The special kind of activity proper to anything; the mode of action by which it fulfills its purpose." In this light, the function of a pen might be to transfer ink onto paper in a consistent, nonsmearing, 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 created interpretant of the wielding. Functions of specific instruments are sometime defined by describing how or why one uses the instrument in question. In particular, most definitions of functions are really representational interpretants of either typical energetic interpretants (e.g., "a hammer is used to pound in nails") or typical creative interpretants (e.g., "this machine makes sausages"). Hence, functions in the lay sense are often simply descriptions of what to do with an instrument, or what an instrument does (both normatively and by design).[12]

THE GROUND OF INSTRUMENTS: MOTIVATED AND ARBITRARY; DYNAMIC AND IMMEDIATE

Semiotically speaking, the function of an instrument is an object and, hence, may often be framed as that which organizes the range of appropriate and effective (normative), or feasible and efficacious (causal), interpretants of that sign (to a given semiotic agent or community and within a particular ontology). Of course, what

counts as appropriate and effective, or feasible and efficacious, is determined by many interrelated factors as a function of that instrument's embedding in the residential whole. Foremost among these is the purpose of the action that wields the instrument (and, hence, the emphasis on enablement and constraint or permission and prohibition, above) as well as the purpose of the action that created the instrument.[13] But other constituents serve as embedded interpretants as well. For example, the function of a hammer is determined 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 determined by the status of one's role (carpenter versus looter). It is determined by the value of one's identity (mensch versus no-goodnik). It is determined by other instruments that contextualize the hammer: nails versus windows, workshops versus storefronts. And it is determined by the affordances that are simultaneously heeded: the strength of steel versus the fragility of glass, the clarity of daylight versus the cover of darkness, *inter alia*.

Insofar as the functions of instruments are holistically determined (ontologically mediated and frame-dependent) 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 norms involving instruments are highly regimented by causes. Thus, being appropriate and effective is partially determined by being feasible and efficacious. To return to our example from chapter 3, while one *can* use a hammer as a screwdriver, it is less feasible to use a hammer as a chair. Conversely, while one *may* use scissors or shears at a ribbon-cutting ceremony, it is not appropriate to use a switchblade. In short, with varying degrees of ontological strain and leakage, and with a variety of caveats, instruments can be inappropriately wielded and still be efficacious, and they can be feasibly wielded and still be ineffective.

Recall our discussion of dynamic and immediate objects from chapter 2: the former brings the sign into being (or to the attention of the interpreter), and the latter is brought into being by the sign (or by its interpretants). In the context of instruments, it is often the purpose of the action that created the instrument that determines the subsequent function of the instrument. For this reason, we might say that the function of an instrument is a dynamic object at one degree of remove. Moreover, assuming an instrument is well designed, an agent can read its function (or object) directly off its form (or sign). For example, assuming an instrument is well designed, merely by looking at it one knows how to wield it appropriately or feasibly (e.g., where to hold it, how to move it, what to expect from it). Moreover, when wielded appropriately, such an instrument is transparently effective or efficacious (e.g., the light goes on, the nail goes in). Compare Norman (2002 [1988]). Well-designed instruments that are used for their original purposes, then, are akin to symptoms, ironically enough: their immediate objects maximally overlap with their dynamic objects. Finally, as discussed in section 1, actors and analysts alike are prone to treat relatively derived immediate objects as relatively original dynamic objects—a point that holds for functions as much as purposes, statuses,

values, and even purchases, and a process that is one kind of fetishism discussed in chapter 3.

SYMBOLS AND TOOLS

Semiotic instruments (or "symbols" in the stereotypic sense) should be distinguished from nonsemiotic instruments (or "tools" in the stereotypic sense). In particular, a semiotic instrument, such as a speech act (or communicative sign more generally), is stereotypically wielded to change a social status or mental state: in baptism, a child acquires a name and a social status; in assertion, a person acquires a belief; and, in any discursive move more generally, a space of intersubjectively recognized commitments and entitlements (to signify, objectify, and interpret in particular ways) is transformed. In contrast, a nonsemiotic instrument, such as a hammer, is stereotypically wielded to change a material substance or physical state: a nail is driven into a board with a hammer, a light goes on with a switch, and, more generally, a relatively objective space of possible and necessary causal processes is transformed. Moreover, in comparison to semiotic instruments, nonsemiotic instruments have relatively iconic-indexical (or "motivated") grounds, and they are subject to relatively causal (or feasible and efficacious) regimentation. Concomitantly, and perhaps most importantly, semiotic instruments have their effects brought about by someone's interpretation of them, whereas nonsemiotic instruments have their effects brought about by something's reaction to them. For nonsemiotic instruments, then, there is one interpreter and one reactant: the one who interprets the nonsemiotic instrument by wielding it, and that which undergoes a change in state by reacting to the wielding of the nonsemiotic object. On the other hand, For semiotic instruments, in contrast, 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 status or mental state.

It should be stressed that, while semiotic and nonsemiotic instruments are being contrasted as starkly as possible, the difference between them is really one of degree and not one of kind. For example, as we saw in chapter 2, there is a wide range of agents between "persons" and "things" in their canonical senses and, hence, a wide range of sensing and instigating, as well as signifying and interpreting, entities that quickly blur such distinctions. Indeed, as with norms and causes, or social statuses and material substances, each can often be framed as the other with more or less degrees of ontological strain and leakage. Moreover, most complex technologies nowadays turn on, or are entangled with, a large range of semiotic and nonsemiotic instruments, not to mention other kinds of constituents, and they cannot properly function without such an embedding, or they function in strange and unexpected ways.

Finally, as per the discussion of embeddedness in chapter 2, it must be emphasized that utterances, and communicative signs more generally, are instruments. And thus they have most of the properties discussed in this chapter (as well as many other properties that are specifically linguistic, or symbolic, in nature). In particular,

their meaning is highly regimented by embedded interpretants (via relations such as incorporation, complementation, and creation) that turn on the other kinds of constituents (not only affordances, actions, roles, and identities, but also relatively nonsymbolic instruments). Representations of the world not only presuppose residence in the world, but they also partake of the very same principles.

THE INTERPRETANTS OF INSTRUMENTS: BEYOND THE ACTIONS THAT WIELD THEM

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 one instrument complements another instrument, such that each has the other as a condition of possibility (if not intelligibility), they may be interpretants of each other. For example, a hammer is an interpretant of a nail (and vice versa) and a jar is an interpretant of a lid. Insofar as an action wields an instrument, the former is an interpretant of the latter. For example, writing is an interpretant of a pen.[14] And climbing is an interpretant of a ladder. Finally, as we saw above, roles and identities frequently incorporate and complement instruments, often by having relatively emblematic actions that involve wielding the instrument in question.

Representational interpretants of instruments are also manifold. Any word that refers to an instrument (e.g., *hammer*, *nail*, *skateboard*, *kettle*) provides an interpretant of that instrument. As is well known (Keil 1989), the concepts of such words, or their inferentially articulated object-types, usually turn on the functions of the instruments they refer to. These concepts can be quite complex. For example, Wierzbicka's (1985) definition of the word tea cup goes on for several pages and—from the standpoint of this theory—really consists of representational interpretants of common energetic, creating, incorporating, and complementing interpretants involving tea cups in certain social milieus. The fact that there are so many words for instruments, as well as productive morphology for deriving them from verbs, expresses the fact that much 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*).

To be sure, with expertise and the rise of complicated and specialized instruments more generally, there are many instruments that only experts can name. Relatedly, there are useful shifter-like words such as *thingamajig*, *gizmo*, and *doohickey* for the rest of us. 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 energetic 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, such that

instruments can be caught up in cause-effect and property-substance reasoning as well as theoretical agency more generally.

4. Undertaking Actions

An *action* is a semiotic process whose sign is a controlled behavior, whose object is a purpose, and whose canonical interpretant is an instrument that is created by it, or another action that incorporates or complements it. As we saw in the introduction, actions are special in that they seem to sit in the middle of our ontology: simultaneously signs to be interpreted and interpretants of signs, simultaneously incorporating of affordances and instruments and incorporated by roles and identities. As will be seen in this section, if affordances are akin to natural instruments, actions are akin to embodied instruments—their signs are more fleeting, their objects are more contingent, and their artificers are the actors themselves.[15] Indeed, just like instruments, actions can be inappropriately undertaken and still be efficacious, and they can be appropriately undertaken and still be inefficacious. Finally, just as there are semiotic and nonsemiotic instruments, there are "symbolic" and "instrumental" actions. Given these parallels between affordances and instruments, on the one hand, and between instruments and actions, on the other, many of the points developed in the last two sections regarding regimentation, strain, and so forth should be understood as carrying over to actions in the appropriate limits.

THE SIGN-COMPONENT OF ACTIONS: CONTROLLED BEHAVIORS

Saying that the sign of an action is *controlled* means that the actor more or less determined when and where the behavior would happen. While not necessarily "intentional," "chosen," "self-conscious," or even "desired," the behavior was not an accident or a mistake, nor did it happen in the actor's sleep or as a reflex arc. In chapter 3, control (as the expression of a sign) was just one component of practical agency, and thus our definition of action does not presume composition (of the sign-object relation). For example, undertaking another's command is still an action. That said, as will be discussed below, actions do presume a certain degree of commitment, in that the actor would be surprised by, and disposed to sanction or draw inferences from, nonanticipated effects (qua reactions of things or interpretants of people). Crucially, control (like composition and commitment) is a graduated notion, turning on the relative leeway of when and where a behavior may be expressed. Moreover, communities may have different judgments regarding what behaviors are controlled and uncontrolled. Borderline cases include interjections, emotional reactions in the stereotypic sense, and behaviors undertaken while drunk, asleep, hypnotized, catatonic, spellbound, and so forth.

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

eating, walking a dog, feeding a child).[16] 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; indeed, they might involve activities such as 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). Prototypic 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. Indeed, as we will see in chapter 6, metaphors of the life-journey are often built from this prototype.

THE OBJECT-COMPONENT OF ACTIONS: PURPOSES; INTENTIONS; AND "INTENTIONS"

Semiotically speaking, the purpose of an action is an object and, hence, may often be framed as that which organizes the range of appropriate and effective (normative), or feasible and efficacious (causal), interpretants of that sign (to a given semiotic agent or community, and within a particular ontology). Of course, what counts as appropriate and effective, or feasible and efficacious, 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 created by that action (where such "instruments" may be state-changes as well as artificed entities per se). But, as will be discussed below, other constituents serve as embedded interpretants as well.

Thus, while the term *purpose* is being used here to mean the (semiotic) object of a controlled behavior, there are three other closely related terms that should be kept separate. The terms "intention" and "purpose" (in scare quotes) will be used to mean the putative psychological states that seem to cause controlled behaviors (as articulated, say, in the folk psychology of a semiotic community). These are often understood as the desired end that some controlled behavior is meant to bring about (itself often understood as a cause of, or reason for, the behavior). 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 and, hence, has propositional content reflexively projected onto it. Note, then, that most descriptions of actions are really representational interpretants of controlled behaviors as signs, and so are also relatively explicit signs of purposes: *she was sharpening her skates*; *he was walking to school*; and so forth.

While a proper account of both intentions and "intentions" will have to await chapter 5, it is worthwhile briefly enumerating the differences between purposes and intentions—for it is one key site where residence in the world and representations of the world are most clearly entangled. If an action is a semiotic process whose sign is a controlled behavior and whose object is a purpose, such a purpose counts as an intention when the actor herself (qua controller of the behavior) commits

to a representational interpretant of the sign-object relation in question. In other words, she would be surprised by, or disposed to sanction or draw inferences from, representations of her controlled behavior that did not (inferentially) conform with her own representation, say, "I'm raising my hand (to ask a question)." Intentions, then, are purposes with propositional contents conferred upon them (thereby making them inferentially articulated, grounded in language, subject to reasons more generally, and, in particular, caught up in theoretical agency). And intentions are self-reflexive purposes (such that the actor can self-regiment her own behavior in relation to its effects).[17]

We already dealt with communicative and noncommunicative intentions in chapter 2, and we will return to them in chapter 5. For the moment, note that some philosophers (in particular, Davidson 1984) think that intentions are stereotypically justified with (or have as their inferential roots) a belief and a pro-attitude, where the latter may include personal preferences (desire), social obligations (status), or ethical commitments (value). To take the most mundane of examples, my opening an umbrella when it rains (as an action) may be justified by a belief (say, that an open umbrella will keep me dry) and some kind of pro-attitude: for example, a personal preference (to stay dry), a social status (to keep my uniform clean), or a moral commitment (that dryness is godliness). In this way, even at the inferential level, intentions are often caught up in roles and identities (not to mention desires, however brute or refined) and, hence, residence in the world, as much as representations of the world, and reflexive modalities of selfhood more generally. In short, intentional actions not only have causal or indexical fruits, they also have logical or inferential roots.

It is a fair question to ask what kinds of evidence observers look for to determine whether a behavior was purposeful, or intentional, or not (and, hence, whether it constitutes an action). Perhaps the key diagnostic is a high degree of practical agency: if I think you controlled (and composed) your behavior, qua cause, and could have committed to its effects (as well as desired them), then it is reasonable for me to assume that the behavior was a means for those effects as an end, such that you were a purposeful agent in the stereotypic sense. (Such reasoning can be applied to human and nonhuman animals.) Moreover, as we just saw, assuming all this is true, and that you are also a human animal with a high degree of theoretical agency (e.g., language), then you should also be an intentional agent: someone who can explicitly represent their own action, be able to offer a reason for it, and be surprised by, or disposed to sanction and draw inferences from, representations that don't inferentially conform with these representations and reasons.

THE INTERPRETANTS OF ACTIONS: BEYOND THE INSTRUMENTS CREATED

The interpretants of actions are manifold. Insofar as an instrument is created by an action, it may be an interpretant of that action. For example, a portrait may be an interpretant of painting and a bottle may be an interpretant of blowing glass. As discussed in section 3, this is one reason the functions (of created instruments)

are often framed in terms of the purposes (of creating actions). More generally, any change in state brought about by an action may be a created interpretant of that action. For example, if one breaks a window (and subsequently uses the hole to unlock a door), then the broken window is an instrument that itself constitutes a created interpretant of the action of breaking it. Insofar as an action incorporates another action, the former is an interpretant of the latter. For example, scratching one's nose may be an interpretant of lifting one's hand. And going to the park (as a relatively long-term action) may incorporate getting on the bus (as a relatively short-term action). Insofar as one action reacts to another action, the former is an interpretant of the latter. As we saw in chapter 3, for example, my action of stepping back or ducking may be an interpretant of your balling your hand into a fist. Many actions are complemented by roles and identities, and thus they "make sense" only in the context of them (as one of their conditions of possibility or intelligibility), often as one of their relatively emblematic roles. Finally, any role or identity may incorporate an action, and thereby serve as an interpretant of it. Again, incorporation means that the action relates to the role as part to whole and means to ends. For example, being a teacher may constitute an incorporating interpretant of grading homework or disciplining children. And being a lawyer may constitute an incorporating interpretant of writing briefs or questioning witnesses. That is, such actions are some of the many ways one may satisfy such roles.

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," "she was slowly poisoning him," and so on. To see this, note that only in certain degraded conditions (themselves quite interesting to theorize) is a behavior described *as* a behavior: "his palm turned upward and his arm moved forward" (versus "he held out his hand for change"). Indeed, when we described the sign-component of actions, we were already describing lexical classes and (intentional) actions per se. That is, descriptions of behavior are usually already relatively explicit signs of the purpose of that behavior and, hence, representational interpretants of the action per se. In this way, the action verbs of any language (qua representational whole) are themselves interpretants of the action types of any community (qua residential whole). Finally, as shown above, 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 and thereby ground actions in reasons (and actors in accountability). Note, then, that we can undertake as many actions, in the strong intentional sense, as there are representable behaviors in a language—and thus an infinity of different actions.

DO ANIMALS HAVE INTENTIONS?

In a particular framing, animals (and perhaps so-called prelinguistic infants) do not have intentions as just defined, which would require both propositional content (via

representational interpretants) and internalization (via self-reflexive commitment). They may, of course, be ascribed intentions insofar as their behavior is subject to interpretive reasoning of others (but not themselves). And they may or may not have "intentions," as folk-psychological entities of a particular sort, depending on whether a given semiotic community is willing to confer these upon them.[18] But they certainly have purposes, as intimated in section 2, with the following qualifications. First, as with all constituents of the residential whole, they lack representational interpretants and, hence, propositional contents. Not only does this mean that they do not have intentions, but it also means that the purposes they have are much simpler and circumscribed (insofar as they are not inferentially articulated through the infinitely generative mechanisms of a natural language, and higher-order reasoning processes more generally). Moreover, while humans may normatively regiment animals (via their sanctioning practices), most animals do not normatively regiment themselves (via historically mediated processes of sanctioning and imitation). Thus, their actions should be understood in terms of feasibility and efficaciousness rather than appropriateness and effectiveness. Finally, in comparison to humans, nonhuman animals are relatively unable to commit to others' interpretants of their actions. That said, none of this means that many animals cannot self-reflexively commit to their own incorporating and creating interpretants, and thereby be surprised or frustrated when such interpretants fail to come about. In this way, many nonhuman animals are consummate interpreters of their own actions.

5. Inhabiting Roles

A *role* is a semiotic process whose object is a status, whose sign is an expression of that status, and whose canonical interpretant is another role that complements it, or an identity that incorporates it. The relation between roles, statuses, and attitudes (and between indices, individuals, kinds, agents, and ontologies, more generally) was treated in great detail in chapter 3. Therefore, this section focuses only on roles insofar as they relate to the other constituents of the residential whole. Before beginning, recall that the term *role* can be used narrowly to refer to the sign-component of a semiotic process (qua expression of a status), as was done in chapter 3, or it can be used broadly to refer to the entire semiotic process (qua role-status-attitude relation itself). In what follows, we will tack between both of these uses.

ROLES AS ANY POSSIBLE EXPRESSION OF A STATUS

As introduced in chapter 3, a status may be framed as a projected propensity to signify, objectify, and interpret in particular ways, or to exhibit particular indices more generally (itself often imagined as a bundle of normatively regimented commitments and entitlements). A role (in the narrow sense) is any relatively indexical sign of such a propensity—itself usually some particular mode of signification,

objectification, or interpretation. And an attitude is another's interpretant of one's status (having perceived one's role). In this way, any constituent of the residence whole (as well as the representational whole) can be a role, qua relatively indexical sign of a status. And thus any instance of heeding an affordance, wielding an instrument, undertaking an action, inhabiting another role, or fulfilling an identity can index a status (to some interpreting agent, with a particular ontology, who is disposed to project the relevant propensity).

For this reason, roles (in the narrow sense) are much more heterogeneous signs than, say, natural features (in the case of affordances), artificed entities (in the case of instruments), or controlled behaviors (in the case of actions). And this is one reason relatively emblematic roles are so important. Indeed, the emblematic roles of many statuses are usually particular affordances, instruments, and actions (as well as other roles and identities) that seem to strongly correlate with the status in question (to a given semiotic agent or community and within a particular ontology). In any case, the crucial point is this: through your role (as well as through the roles of others who interact with you), I may infer your status, and, having inferred your status, I may come to expect other roles from you that would be in keeping with that status. As characterized in chapter 3, just as a status may often be framed as propensity personified, a role (in the narrow sense) may often be framed as personhood actualized, and an attitude may often be framed as another's persona internalized.

THE INTERPRETANTS OF ROLES

As we saw in chapter 3, while the canonical interpretant of a role (in the wide sense) is probably another's adoption of a complementary status, attitudes include affective, energetic, and representational interpretants (as well as their ultimate varieties). As should now be clear, attitudes may also include any relatively embedded constituent of the residential whole. For example, insofar as an instrument is created by a role (or, more precisely, created by an action that is itself grounded in the commitments and entitlements, or projected propensity more generally, which constitute the status of the role), the former is an interpretant of the latter. A loaf of bread is thus as much an interpretant of being a baker as it is a sign of being a baker. This framing of roles also captures the meaning of the lay expression: "interpreting a role." In particular, many of our actions, and our comportment more generally, may be understood as individually and creatively acting within the possibilities our social (intersubjectively regimented) position affords us (often, thereby, changing that position). Similarly, insofar as a role is created by another role (or, more precisely, by a set of actions that are themselves grounded in the propensity which constitutes the status of the role), the former is an interpretant of the latter. For example, a socialized child (or disciplined being more generally) may constitute an interpretant of being a socializing parent (or disciplining being more generally). The future propensities of the former (such as dispositions to signify, objectify, and interpret in particular ways) are created by actualizing the current propensities of

the latter. And insofar as another role or identity incorporates a role, the former counts as an interpretant of the latter. For example, being a Q'eqchi'-Maya (as an ethnic affiliation, with a particular value orientation) may provide an interpretant of a man's role in a cave ritual or a godparent's role in a baptism ceremony. The latter can count as means of fulfilling the values of the former as ends, and parts of such larger life-projects as wholes. More canonically, undergoing a change in status, qua ultimate interpretant, may constitute an interpretant of another's role. For example, one's assuming the role of husband is an interpretant of the role (wide sense) of the civil or religious official who presided over one's wedding—and, in particular, their civil or religious role (narrow sense), qua ritual performance. Or, assuming the role of patient is an interpretant of encountering another in the role of doctor. Indeed, just as one cannot understand a sheath without reference to a sword, one cannot usually understand a priest without reference to a parishioner or an addressee without reference to a speaker or a lawyer without reference to a client (and vice versa). Linton characterized such complementary relations in terms of "congruence" and "reciprocation" (1926). Finally, one and the same action may be a creative interpretant of a status (constituting, say, one of its rights or responsibilities), and serve as an emblematic role of that status. Such roles are thus similar to symptoms: their immediate object is their dynamic object—what they bring to another's attention (qua rights and responsibilities, or propensity more generally) is what caused their expression. This is probably the stereotype of a role, and it is closest to Linton's original formulation. (See Table 4.3.)

In any case, a crucial point is this: given the embedding of any actual role in the residential whole, any one of the statuses that one is currently inhabiting may be indexed by many signs simultaneously (and, indeed, may exist only by way of such indices). These may be embodied and embedded in one's own behavior, as well as embodied and embedded in the behavior of others (not to mention enminded in and articulated by one's own and others' representations)—the affordances being heeded, the instruments being wielded, the actions being undertaken, the other roles being inhabited, and the identities being fulfilled (at any degree of indexical remove, via framed and framing processes such as incorporation, complementation, and creation).[19] And anyone of these indices may have its particular meaning (in the sense of indexing a particular status, qua projected propensity) only in that context (and thus may disappear when removed from that context). In this way, as was argued in chapter 3, relations between roles and statuses (or indices, kinds, individuals, agents, and ontologies more generally) are incredibly context dependent—not to mention potentially fleeting, fragile, and faint. Nonetheless, in certain cases—for reasons of emblemeticity as much as contextual redundancy—statuses may be more or less directly perceivable (rather than being indirectly inferable) in the way this was defined during the discussion of objects in section 1.

Finally, representational interpretants of roles are also manifold. In particular, any label provides an interpretant of a role: *mother*, *speaker*, *doctor*, *husband*, *worrywart*, and so forth. The conceptual structure of such words may often be

TABLE 4.3

Theories of Roles Compared

	Linton's Theory	Theory Offered Here
Role (sign)	Any action that conforms with one's rights and responsibilities.	Context-dependent index of one's projected propensity (given particular interpreting agent, their ontology, other indices, etc.).
Status (object)	Collection of rights and responsibilities to act in certain ways.	Projected propensity to exhibit certain indices (sometimes framed as commitments and entitlements to signify, objectify, and interpret in particular ways).
Attitude (interpretant)	Nothing in Linton per se, but would probably be something like a representational interpretant, such as a belief that "so and so is a banker" (or a relatively lexical role- or status-designator).	Embodied, embedded, articulated, and enminded interpretants, ranging from affective, energetic, and representational interpretants to incorporating, creating, and complementing interpretants.

characterized in terms of an underlying status (itself often imagined, or ontologized, as a bundle of rights and responsibilities, or normative commitments and entitlements, or habits and dispositions): what a mother or a priest may or may not do, should or should not do, is unlikely or likely to do, and so forth. In this way, words such as *may* and *must,* in conjunction with various representational interpretants of actions (as well as representational interpretants of other complementary roles), can be used to make explicit the normative entitlements and commitments that compose statuses in their stereotypic and reified sense, as well as the inference-licensing projected propensities that may or may not actually underlie them (and theoretical agency more generally). In this way, one may reside in the world only within a particular representation, such that one's indexical signs may both license, and be licensed by, relatively propositional inferences about one's identities. This is yet another site where residence in the world and representations of the world are most transparently entangled.[20]

PUTTING ROLE-INHABITANCE ON A PROPER FOOTING: BEYOND THE DRAMATURGICAL SELF

That one is always at the *intersection* of multiple roles (father and husband, speaker and overhearer, innocent bystander and friend), is a rather obvious point, and yet one that still needs to be stressed for several reasons. First, most comportment is semiotically frameable relative to many roles (though, to be sure, only some are particularly critical, explanatory, or coherent at any given moment, to a given interpreting agent, that may include the role-performing self in question). In a particular context, some of these roles may be relatively fluid or quickly shifting (say, speaker and addressee), and others may be relatively fixed (say, gender or marital status)—and, of course, vice versa, in the right circumstance. This multiple inhabitance

can lead to conflicts, resonances, cancellations, reframings, and so on. And finally, given the intersection of role inhabitance and residential agency (in particular, the dimension of *commitment*), the otherwise straightforward inhabitance of any role is always parasitically subject to strategizing, enclosing, aestheticizing, and dissembling practices. (Amen.)

Indeed, given the ambiguity of being implicated in multiple roles, some actually inhabited and some only projected, some held close and others worn lightly, role-inhabitance is a fraught and essential part of being human. Erving Goffman (1959, 1981b), that arch-Meadian, probably understood the microdynamics of such interactional processes better than anyone—arguing, for example, that the performed self (qua immediate object) is often taken, by self and other alike, to be the performing self (qua dynamic object). Rather than reviewing his well-known arguments, the next section, in conjunction with chapter 6, will offer a theory of that constituent which organizes roles, and about which Goffman had relatively little to say, namely, identity and, in particular, value. Indeed, the fact that he had so little to say about identity (and related processes, such as affective unfoldings) is probably the key reason his theory of personhood, for all its brilliance, never got much past the dramaturgical self, a relatively monodimensional realm of motivation in which everyone is either vying for status (in the sense of "distinction") or saving face.

6. Fulfilling Identities

An *identity* is a semiotic process whose object is a value, whose sign is an expression of that value, and whose canonical interpretant is an action or role that is created by it, or another identity that incorporates or complements it.[21] Because identity maximally interacts with representational interpretants (and, hence, with language and mind more generally), because identity is so closely linked to agency and selfhood, and because value is a particularly strange and important kind of object, it cannot be adequately understood until these topics are treated at length in subsequent chapters. In this section, we will frame value in relation to statuses and purposes, and thereby frame identities in relation to roles and actions. In particular, sometimes value can be framed as a particularly important or pervasive status, and sometimes value can be framed as a long-term or higher-order purpose. As will be seen in chapter 6, identity may also be framed as a meta-kind that reflexively incorporates the other sorts of kinds discussed in chapters 1 and 3 (e.g., social statuses, mental states, material substances). In particular, it involves most of the same principles (indices, inferences, individuals, etc.), and it is mediated by most of the same processes (enclosure, emblemeticity, ontology, etc.). For these reasons, much of what was said above (in section 1) and in chapters 1 and 3 also holds for identity—in particular, the various kinds of emblemeticity, the context-dependence of its indexical values, the conceptual structure conferred upon it by representational interpretants, the tension between inference and perceivability, the relations

between practical and theoretical agency, the regimentation by generalized others on various scales, the ways one may be implicated in many identities at once, the constant temptation to reify it, the ways in which it is both condition for and consequence of various framing, and so forth. And readers are invited to extend those claims, and draw out these commitments, themselves.

IDENTITY AS SIGN AND IDENTITY AS SEMIOTIC PROCESS

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. And as the sign-component of such a semiotic process, it is the expression of a value. In this latter, more narrow sense, identities are thus to values what roles are to statuses. And, therefore, an identity can be any mode of comportment, or perceivable feature more generally, that indexes one's value(s): wearing a certain kind of hat, undergoing a certain kind of surgery, reading a particular book, holding a certain belief, waving a certain flag, espousing a certain desire, shouting certain slogans when drunk, knowing a certain handshake or song, speaking a particular language, making a pilgrimage, avoiding certain foods, expressing a certain feeling, saying "I am an X" or "thou shall not Y," and so on and so forth. In other words, under the right semiotic frame (within a particular semiotic community, to a given interpreting agent, in the particular context of other signs, as mediated by a particular ontology, etc.) *any* practice, property, or process may be an expression of one's values and, hence, a relatively indexical sign of one's identity. And thus any constituent of the residential or representational whole (belief or action, instrument or wish, affordance or memory, gesture or utterance, etc.) can be the sign-component of one's identity. For these reasons, aside from certain relatively emblematic indices of identity (e.g., dietary restrictions, holy books, icons, jewelry, pilgrimages, clothing, hats, etc.), themselves suitably generalized from the last section and from chapter 3, the sign-component of an identity does not help define what is meant by identity. It is far too heterogeneous. Rather, the interesting question is what is meant by *value* (as a particular sort of projectable propensity).

KINDS OF IDENTITY: DIMENSIONS, LOCI, AND CONTENTS

Before tackling value, we need to introduce three more distinctions, which are additional ways of characterizing the value-identity relation and which go back to our definition of relational emblemeticity in chapter 3. In particular, identity (in an unmarked sense, as the relation between value and its expression) may be initially understood as *being-in-common*. In particular, there is a self-sameness of contents across a range of contexts (where the criteria for establishing contents and contexts are themselves subject to various framings). For present purposes, three kinds of being-in-common are possible. Values can be (more or less) held in common. Values can be held in common, and in contrast to another entity that holds other values

in common. And values can be held in common, in contrast to another entity that holds other values in common, and with a reflexive sense of this contrastive commonality. In short, there can be substantive, contrastive, and reflexive senses of identity. Saussure got the first two senses of identity (sometimes called "identity" and "difference," respectively); but, as we saw in chapter 3, for human kinds the reflexive sense is probably the most important.

Moreover, each of these three senses of identity can be localized in a different kind of entity, such as an individual, a group, or a species. For example, an individual may hold a certain set of values (which contrast her with other individuals and which the individual reflexively understands). Or the members of a group may hold a certain set of values (which contrast it with other groups and which members of the group reflexively understand). While most scholars focus on group identity (or individual identity insofar as it is articulated in terms of group identity: *I* am an Armenian), some also focus on species identity. This may turn on various forms of humanism (say, Marx on species being, discourses regarding universal human rights, and so on). It may turn on animal rights (say, Peter Singer's work). And it may even be outside of conventional understandings of *zoe* per se (for example, cyborgs, robots, Gaia, the universe, alien life forms, biophilia, and so on). Notwithstanding these tendencies, many would argue that only certain species have the reflexive sense of identity (regardless of the locus of identity). And, indeed, some scholars (and states) will grant identity to a group or individual purely in terms of reflexivity (one considers oneself X), even when there is no substantive or contrastive reason to justify such a claim: one's reflexive identity *is* one's 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). And then an almost bewilderingly wide and historically specific range of possible contents exists. For example, the group or community in question can be religious (Christian, Jewish, Muslim), political (Democrat, Republican, green), national (German, American, Japanese), regional (East Coast, Midwest, Hoosier), philosophical (empiricist, rationalist, realist, nominalist), or sociopolitical in the lay sense (turning on affiliations based on class, gender, sexuality, race, ethnicity, etc.). It may have to do with the division of labor (guilds and professions), the distribution of kin (moeities and clans, parents and lineages), or the distribution of kith (sororities, clubs, gangs, and teams), *inter alia.* Such dimensions (commonality, contrast, reflexivity), loci (individual, group, species), and contents (ethnicity, religion, etc.) aside, we may now turn to value.

IDENTITIES AND ANALOGIES: VALUE IN RELATION TO STATUS AND PURPOSE

Insofar as values (and identities more generally) are heavily mediated by representational interpretants of them, it is useful to develop several analogies that 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 metaphors, which are themselves grounded in more easily understood constituents. They allow us to take what we already know about roles and actions and apply it to identities, and thereby understand a relatively abstract relation (identity-value) in terms of relatively concrete relations (role-status and action-purpose). In some sense, then, they are not actual theories of identity or value, but rather relatively enticing folk theories, themselves heavily dependent on particular semiotic ontologies, that need to be made explicit so that they do not unconsciously guide theorizing later on. Such a warning is not meant to discount such metaphors; indeed, in the realm of social constructions, one often *is* one's folk theory. In some sense, then, the task is to simultaneously explicate, generalize, leverage, and undermine such metaphors.

If the relation between identity and value is understood in terms of the relation between action and purpose, several widespread analogies are possible. First, a value might be understood as a long-term purpose: not planning a route to work 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 (compare Lakoff and Johnson 1980). 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 1989). 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 (2001b) understanding of the summum bonum, or highest end—and this is one reason identity stands at the "top" of our ontology (qua end, which is not itself a further means). 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 a space of mental states, social states, and material substances (or kinds more generally). For example, values help us decide which social statuses we should inhabit and which mental states we should hold over the course of our lives, or, in cases in which we have little choice, they help us determine how we should feel about our own and others' social statuses and mental states. In short, a value might be understood as a meta-purpose that enables us to position ourselves (and others) in, as well as move ourselves through, a space of possible kinds.

If the relation between identity and value is understood in terms of the relation between role and status, additional analogies are possible. First, an identity is just a relatively complex set of roles, and a value is just a relatively complex 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. For example, one is simultaneously a loving husband, a devoted father, a dedicated civil servant, and a committed Buddhist. 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, or propensities more generally, trump their commitments and entitlements in cases of conflict) or as more overarching and context-independent (i.e., one inhabits it in more places, with more people or more important people, for longer or more crucial periods of time). For example, one may be a banker only during the day or an addressee only during particular swatches of conversation, but a Christian 24–7 or an Armenian all one's life, especially among intimates or on holy days. Third, an identity is just a role whose status, now understood as a value, is discursively articulated (like a rule) 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, an identity is a meta-role and a value is a meta-status. That is, if a status is a propensity to signify, objectify, and interpret in particular ways, then a value is a propensity to inhabit particular social statuses and hold particular mental states (or be implicated in particular kinds more generally). And, if a role (in the narrow sense) is just an expression of a status, an identity is just an expression of a value—or whatever indexes such a (projected) propensity to exhibit, or hold dear, particular propensities.

PROMISSORY NOTE

In short, the value underlying an identity may be usefully framed by analogy to both the status underlying a role and the purpose underlying an action. There can be substantive, contrastive, and reflexive senses of identity: three different ways of "being-in-common" with respect to value. This locus of identity, whatever has some kind of evaluative coherence, may be located in an individual, group, or species. And the contents in question can be imagined in a variety of ways (national, religious, philosophical, personal, political, etc.). All of these ideas will be incorporated in chapter 6, in which value will be theorized by unfolding a metaphor that turns on the relation between a map, a terrain, and a traveler, where the terrain turns on kinds such as social statuses, mental states, and material substances (or residence in, and representations of, the world more generally), where the map figures such a terrain in terms of differentially valenced origins, paths, and destinations, and where a traveler's interpretations of such a map are equivalent to charting a course through such a terrain. In some sense, value will be turn out to be *life itself* (subject to a particular framing or within a particular ontological interpretation).

7. From Acting under a Description to Comporting within an Interpretation

The analytic philosopher G. E. M. Anscombe (1957; and see Davidson 1984) famously defined an intention as "acting under a description." That is, to have an intention requires that the actor (and others) be able, at least retroactively, to provide a description of the action (e.g., "I was walking to work"), and offer a

reason for it more generally. In section 4, we retheorized this insight in terms of self-reflexive representational interpretants of controlled behaviors, a key kind of entanglement between residence in and representations of the world. In particular, we characterized intentions as inferentially articulated and reflexively recognized purposes. In this way, intentions are the objects of semiotic processes that partake of both practical agency (via the dimension of commitment) and theoretical agency (via the dimension of reasoning). And thus, while all animals may act purposely, only particular kinds of animals act intentionally.

Anscombe's account is groundbreaking, in part, because it moves intentions from a purely private psychological realm to a relatively public and discursive one. It also offers, in Hacking's subsequent analysis (1995, 2002), an account of how old behaviors may come to be viewed through new descriptions, giving rise to new intentions and actions (and, we may add, to new roles and identities—especially when such actions are their most emblematic, if not criterial, signs). Or, as we might see it, it shows how old signs (controlled behaviors) may get new interpretants (descriptions), and thus new objects (intentions). This creation-via-ascription of new intentions for old behaviors is important insofar as it brings into being new opportunities for praise or blame (especially since intentional actions so often correlate with accountability, given their agentive nature), and insofar as it brings into being new modes of being a person (given that modes of personhood—qua types of roles and identities—so often correlate with, or are emblematized by, 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. In all of these ways, it constitutes an important mechanism for the transformativity of ontologies laid out in chapter 3.

Nevertheless, as may be seen from the foregoing analysis, Anscombe's theory, as well as Hacking's, fails to account for meaningful behavior along a number of different dimensions. In particular, it focuses on representational interpretants ("descriptions"), whereas there are many others kinds of interpretants we may be "acting under" or rather committing to: creating, incorporating, and complementing as well as affective, energetic, representational, and ultimate, *inter alia*. It takes actions (and thus intentions and 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) not to mention constituents of the representational whole (memories, perceptions, plans, beliefs, promises, assertions, offers, questions, etc.) and affective unfoldings more generally.[22] Indeed, none of the fundamental objects at stake in this chapter (purchases, functions, purposes, statuses, values) exists outside of a particular framing, and, thus, all are subject to the contingencies of interpretive reappraisals. It offers no account of the relative embedding, and thus strength of regimentation, of particular constituents (such as actions) in a residential whole (of other actions, affordances, instruments, roles, and identities) nor in a representational whole, and thus no account of why some actions (or constituents more

generally) are easier or harder to reinterpret in these ways. It does not distinguish clearly enough between others' attitudes (qua regimenting interpretants) toward an 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, and modes of incoherence and strain more generally. It offers no account of degrees of commitment to an interpretant: how well one can internalize another's interpretant of one's sign, or how much practical agency one has over one's behavior (and others' interpretants of it, more generally). It takes actions to be primarily signs to be interpreted, rather than interpretants of other signs. In contrast, one needs a theory that accounts for "experience" (or interpretation) at the same time, and in the same idiom, that it accounts for "behavior" (or signification).[23] And finally, 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 may sometimes be okay in the case of representational interpretants, many key interpretants are embedded 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.*

5

Representations of the World

1. Intentionality Reframed

Intentionality is traditionally understood to be that quality of mental states whereby they are directed at objects or states of affairs. For example, Brentano, one of the first to theorize this quality, thought that each mental state includes an "object within itself" (1995 [1874]:88), but not necessarily corresponding to something existing outside of the mind. As he phrased it, "In presentation something is presented, in judgment something is affirmed or denied, in love loved, in hate hated, in desire desired and so on" (ibid.). Through Brentano's influence on Frege and Husserl, and their influence on Wittgenstein and Heidegger, respectively, many of the most important categories and cleavages within analytic and continental philosophy can be traced back to intentionality in one guise or another (Dummett 1994).

Modern scholars usually take Brentano's *object within itself* to be some kind of propositional content, which may represent some state of affairs. And the entities that exhibit intentionality (or express propositional contents more generally) are taken to be either psychological kinds (such as mental states) or linguistic kinds (such as speech acts). Besides having propositional contents, speech acts and mental states have propositional modes—or ways of relating to the propositional contents in question. Thus, just as one may *assert*, *promise,* and *forgive* in the case of speech acts, one may *hope*, *believe,* and *want* in the case of mental states.

While there is some agreement that the propositional contents of mental states and speech acts are more or less equivalent, there are long-standing debates regarding which kind of intentionality (psychological or linguistic) is originary and which is derivative (insofar as it is inherited from the kind that is originary).[1] Indeed, there are even degrees of derivativeness. For example, in the case of linguistic intentionality, the intentionality of written language might be derivative of the intentionality of spoken language. And in the case of psychological intentionality, the intentionality of intentions and perceptions might be derivative of the intentionality of beliefs.

In addition to distinguishing between propositions and states of affairs, propositional modes and propositional contents, speech acts and mental states, and

originary and derivative intentionality, several other salient dimensions are found within this tradition. First, keep distinct the notions of intentionality (as just characterized) and intentions (as purposes with propositional content, as characterized in chapters 2 and 4). Intentions are just one species of intentionality, taking their place alongside other species such as belief, perception, and memory.

Second, intersecting the philosophical literature on intentionality is a more recent literature on theory of mind and ethnopsychology, stemming from disciplines such as psychology, primatology, and anthropology (see Lillard 1998; Premack and Woodruff 1978; *inter alia*). Loosely speaking, theory of mind refers to a putative species-specific capacity to understand others in terms of intentionality (usually by making sense of their behavior by reference to some underlying mental state—their belief, desire, or intention). And ethnopsychology refers to culture-specific ways of understanding others in terms of intentionality, as well as culture-specific beliefs about the mind more generally. (In this framing, owing to the disciplines that take it up, intentionality is usually understood in terms of mental states and not speech acts.)

And finally, keep distinct the capacity to have one's behavior understood in terms of intentionality (regardless of why or how one actually behaves) and the capacity to understand others' behavior in terms of intentionality (regardless of why or how they actually behave). For example, many of us might be inclined to understand the behavior of a rabbit (or robot) from an intentional stance, and understand it predictably well (say, in terms of wanting carrots, fearing predators, envying the Easter Bunny, and so forth). However, we would probably be less inclined to expect a rabbit (or robot) to understand the behavior of others, including that of its conspecifics, from an intentional stance—Bugs Bunny (and C3PO) aside.

BREAKING FROM THE TRADITION

The concerns of this important tradition (and widespread and long-standing ontology) notwithstanding, it may be argued that the quality of *directedness* is exhibited by any sign insofar as it stands for an object. In this wide sense, every chapter in this book has been devoted to intentionality. And, indeed, chapters 2 and 3 may be understood as arguing that the classic sense of intentionality (as a single relation of directedness between two entities, qua mental state and state of affairs) is essentially wrong, and the actual processes at play can be understood only within a broader framework of significance and selection (and the various kinds of *relations between relations* more generally). Such a framework was meant both to broaden the phenomenon of intentionality (to meaningfulness and mediation in all their generality) and to ground this phenomenon in naturalistic processes that occur on a wide variety of scales. In short, while this chapter focuses on seemingly public and private representations with propositional contents and, hence, intentionality in its classic and modern guise, it does so in conjunction with a larger theory of kinds (chapter 1), through the lens of significance and selection as much as sieving and serendipity (chapter 2), within a broader understanding of interaction, ontology,

and infrastructure (chapter 3), and in relation to the nonpropositional semiotic processes characteristic of residence in the world (chapter 4).

More specifically, rather than understand intentionality (or semiosis more generally) in terms of representation (qua sign-object relations), it will be understood in terms of sign-object-interpretant interrelations that partake of both inference and indexicality. Rather than offer an account of propositionally contentful signs and either ignore nonpropositionally contentful signs, or state that they are important without offering a complementary account, this essay builds on chapter 4 with its theorization of residence in the world. Rather than arguing about the originariness or derivativeness of intentionality in human-centric and historically static terms, such issues will be treated in terms of interactions among processes occurring on phylogenetic, historical, developmental, and interactional time scales. Rather than understand theory of mind and ethnopsychology (in the restricted sense) in terms of psychological kinds, both psychological and linguistic modes of intentionality will be treated in terms of broader cognitive processes and cultural practices. Rather than focus on having intentionality and understanding the intentionality that others have, the focus will be on sharing intentionality with others, building on Mead's insights about generalized others and Peirce's insights about communicative commons. And rather than focus exclusively on what are stereotypically "cognitive" processes, the next chapter treats affective processes as well. In this way, seemingly enminded and articulated processes are entangled with embedded and embodied processes, seemingly subjective processes are understood in relation to intersubjective practices, and the intentional stance is treated as one important modality within a more general *semiotic stance*.

REVIEW OF INTENTIONALITY AS TREATED IN OTHER CHAPTERS

Indeed, we have already dealt explicitly with intentionality in a number of places; therefore, it is worth reviewing some of the claims of earlier chapters insofar as they intersect with the concerns of this one. In chapter 2, for example, after defining significance and selection, some key properties of mental states and speech acts were outlined: their inferential and indexical roots and fruits (and coherence more generally); the relation between conventional, inferential, and ostensive communication; the nature of failure as the flip side of function; and the similarities between logical, theoretical, and textual coherence, on the one hand (qua representations of the world), and causal, practical, and material coherence, on the other (qua residence in the world).

In chapter 3, mental states were theorized in terms of social statuses and speech acts (or kinds, indices, individuals, agents, and ontologies, more generally). Framed from the standpoint of an observer, a mental state was understood as a projected propensity to signify, objectify, and interpret in particular ways, where the modes of signification, objectification, and interpretation in question were inferentially articulated and indexically grounded. For example, one perceives a behavior, infers

a mental state, and comes to expect future behaviors (or infer past experiences) that would be in keeping with the mental state (assuming it is inferentially and indexically coherent, given the ontologies and frames of particular interpreting agents). Moreover, as with social statuses, there are relatively emblematic indices of mental states: behaviors, and signs more generally, that provide relatively good reasons for inferring or ascribing the mental state in question. In this way, intentionality was understood as not only an enframed and ontologized phenomenon, but also a processual and interactional phenomenon—distributed not only over signs, objects, and interpretants, but also across signers, objecters, and interpreters.

And in chapter 4, we saw how representations of the world could confer propositional contents on modes of residence in the world. We saw how modes of residence in the world could constitute the key indexical grounds of mental states and speech acts—not just as the states of affairs so represented, but also as relatively emblematic indices of participants' representations (and, hence, signs of, and resources for, shared intentionality). And we saw how a central tension was between the relative inferrability or perceivability of meaning. In particular, it was argued that, given the embeddedness of meaning, purposes and statuses (as well as purchases, functions, and values) were just as often "perceived" as "inferred"—a claim that may be made, in certain limits, for mental states more generally.

OVERVIEW OF SECTIONS

Sections 2 and 3 frame intentionality from the standpoint of the agent or subject, returning to the issues raised in chapter 2. They focus on the inferential and indexical properties of mental states and speech acts, and their modes of coherence more generally, as well as on the wide range of human-specific modes of creative agency such properties evince and enable, in addition to their syntactic generativity. Together, they build up a theory of ostensive-inferential communication that shows the relation between semiocognitive processes and sociohistorical commons, tacking between interaction, ontology, and (shared) intentionality. Sections 4 and 5 frame intentionality from the standpoint of the observer or alter, returning to the issues raised in chapter 3. They focus on the public face of cognitive processes (qua indices of intentionality, or signs of mind), and on some of the evolutionary, historical, developmental, and interactional conditions of possibility for theory of mind via the interpretation of signs. And they theorize the relation between intentionality, emblemeticity, agency, and parasites.

2. Cognitive Representations

Significance and selection are arguably the essence of both language and mind. From one perspective, intentionality may be understood in terms of *representation*, which is a species of significance*:* just as signs stand for objects, mental states and

speech acts represent states of affairs. For example, one may believe or assert that it is raining; one may intend or promise to go shopping. From another perspective, intentionality may be understood in terms of *satisfaction*, which is a species of selection: just as a means may fail to serve the end for which it was selected, the conditions represented by a mental state or speech act may fail to be satisfied. For example, beliefs and assertions can be false; intentions and promises can be frustrated.[2] Of course, as we saw in chapter 2, language and mind are just two possible modes of significance and selection: *selecting agents and significant objects exist wherever there is life, whatever its level*. Nonetheless, given the importance of language and mind to human concerns, it is worth reframing some of their key features in terms of the foregoing categories.

To this end, the rest of this section explicates a few stereotypic properties of mental states (and speech acts, as it will turn out): causality, rationality, coherence, incorporation, complementation, enchaining, embedding, intensionality, flexibility, and displacement. All of these properties allow human specific modes of cognition to be uniquely agentive in ways that resonate with, and take us far beyond, Humboldt's classic characterization of language: an infinite number of ends are possible with a finite number of means (1999 [1836]; and see Hockett 1958; Jackendoff 2002; *inter alia*). In particular, rather than focus on a narrow sense of linguistic generativity, this section and the next will highlight some of the meaningful ways human-specific cognitive processes evince and enable unprecedented degrees of practical and theoretical agency. Moreover, while many of these properties have been the focus of scholarship by analytic philosophers and cognitive scientists, they are here reframed in the idiom of significance and selection, and semiotic ontology more generally. In this way, while we highlight and celebrate some of the key claims of modern understandings of intentionality, we show their motivated emergence from the more general framework of meaning articulated in previous chapters.

COGNITIVE PROCESSES AND MODES OF COHERENCE

As we saw in chapters 1 and 2, semiotic processes (which might just as well have been called "cognitive processes") have three components.[3] A *sign* is whatever represents. An *object* is whatever is represented by a sign. And an *interpretant* is whatever a sign gives rise to insofar as it represents an object. Recall Figure 2.1. Canonical signs are mental states and speech acts, which are also known as private and public representations, respectively. Canonical objects are states of affairs, involving relations between people and things as well as actions and events. And canonical interpretants are themselves signs, such as other mental states and speech acts. For example, a speech act may represent a state of affairs and gives rise to a mental state. And a mental state may represent a state of affairs and gives rise to a speech act. Such *semiocognitive processes* may thus partake equally of language, mind, and world.

TABLE 5.1
Inference and Indexicality

indexicality inference		Perception	Belief	Intention		accomodation assimilation
	Effect	X			Env	
	Premise	X	X			
	Conclusion		X	X	Org	
	Cause			X		
					Env	

Like the constituents of the residential whole, the constituents of the representational whole (mental states and speech acts) are holistically interrelated by various modes of coherence. In particular, each is *inferentially* articulated relative to other constituents of the representational whole (being able to stand as a reason or stand in need of a reason), and each is *indexically* articulated relative to other constituents of the residential whole (being caused by, or causal of, such constituents). That is, mental states exhibit a logical coherence with each other and a causal coherence with states of affairs. Recall Figure 2.8. In particular, some sign-interpretant remappings are relatively inferential (for example, logical processes linking perceptions to beliefs or beliefs to intentions); others are relatively indexical (for example, causal processes linking states of affairs to perceptions or intentions to states of affairs).[4] Furthermore, such indexical (and inferential) processes can be more or less displaced. In particular, just as some kinds of memories may be understood as displaced perceptions, some kinds of plans may be understood as displaced intentions. For example, relative to the state of affairs perceived and the perception per se, the state of affairs remembered can be displaced in time and space from the memory per se. Such properties are summarized in Table 5.1. In short, not only are cognitive processes the roots and fruits of other cognitive processes (where such processes may be intrapersonal as much as interpersonal), but also the components of cognitive processes are as likely to be premises and conclusions as causes and effects.[5]

To invoke coherence presumes the possibility of *incoherence*: such causal and logical processes may go parasitically awry. This is what was referred to above as "failure to be satisfied." Just as an intention may be frustrated (by not causing the state of affairs it represents), a perception may be nonveridical (by not being caused by the state of affairs it represents). Indeed, the relative displacement of plans and memories, in comparison to intentions and perceptions, may allow for greater degrees of "wiggle room" as to what counts as failure. In addition to such indexical

incoherence, there is also inferential incoherence: the reasoning that links perceptions to beliefs (empirical), beliefs to beliefs (theoretical), and beliefs to intentions (practical) may involve false premises, erroneous conclusions, fallacious arguments, and faulty logics.

Finally, there are three more kinds of coherence and, hence, incoherence that are worth considering. Building on Austin's notion of felicity conditions (see section 4 and chapter 3), there is intrasubjective coherence: does an agent believe what they say, intend what they promise, and so forth. In some sense, this turns on the relative overlap between public and private selves or the conformity of one's speech acts to one's mental states. Building on the notion of self-ascription described above, there is intersubjective coherence: do others attribute to me the same mental states I attribute to myself (or rather reflexively commit to, as per the third dimension of practical agency), and vice versa. Or, more narrowly, do we each share similar beliefs about what beliefs (intentions, perceptions, etc.) we share and, hence, have a shared understanding of our common ground. In such cases, we would each be prone to sanction my behavior, or draw inferences from my behavior, in similar ways, for conforming or not to the other types of coherence. Finally, the philosopher Brandom (1994) has fruitfully theorized a mode of coherence that is distributed: do others use my mental states (and speech acts) as reasons for their mental states, and do my mental states use the mental states of others as reasons. As we saw in chapter 3 during our discussion of theoretical agency, knowledge (as opposed to belief) turns on precisely such modes of distributed coherence: are my claims justified by the claims of others, and do others use my claims to justify their own.

Insofar as the constituents of the representational whole are holistically governed, such modes of coherence can exist (or not) at many different nesting and nested scales: representational whole, institutional whole, situational whole, intersubjective whole, experiential whole, and so forth. (Recall our discussion of analogous scales within the residential whole, where such holistic coherence means that the value of any constituent (sign, object, interpretant) is determined by its relation to other constituents within some greater whole, if only within an ontology-dependent and frame-specific totality.)

Again, by detailing various modes of coherence, we are not implying that representations of the world are usually coherent—they may be massively incoherent, locally or globally, depending on the frame of interpretation and the ontology of the interpreter. (Indeed, recall our discussion in chapter 4 regarding fetishization and the projection of coherence.) Rather, the point is threefold. First, coherence and, in particular, the possibility of failure-to-cohere is an essential property of mental states (at least in one ontology held by experts and lay folk alike). Indeed, this is precisely what should be meant by the "subjectivity" of intentionality.[6] Second, coherence is itself multidimensional, graded, distributed, intersubjective, normative, ontology-mediated, and frame-dependent. And third, not only do modes of coherence organize residence in the world as much as representations of the world, but both kinds of semiotic processes exhibit coherence in relation only to each other. Our residence in the world is inextricably entangled with our representations

of the world. In any case, by understanding intentionality in terms of coherence, and thus by examining the ways different kinds of semiotic processes (such as affordances and instruments as much as beliefs and intentions) are entangled with each other via different kinds of contextual relations (incorporation, creation, complementation, etc.), the gulf between behavior and belief, or residence in the world and representations of the world more generally, disappears: we are left with meaning-in-the-world.

INFERENCE

Insofar as inferential articulation is a central property of intentionality, it is worthwhile sketching a few elementary features of inferential processes. Suppose that, loosely speaking, there are concepts delimiting individuals (*John*, *Fido*), classes (*dog*, *plumber*), and properties (*strong*, *furry*). (And recall the related discussion of individuals, kinds, and indices in chapter 1, when we discussed semiotic ontologies.) And suppose that just as individuals may belong to different classes (*Fido is a dog*), members of different classes may have different properties (*dogs are furry*). Here, then, we have the stereotype of a propositional content: the relation between a theme or "subject" (whatever is being represented: *Fido, dogs*) and a character or "predicate" (however what is being represented is being represented: *is a dog, are furry*). Such a theme-character relation, or representation, may be used as a reason (for another such relation) or may be in need of a reason (by another such relation). Recall, in particular, our discussion of theoretical agency from chapter 3, with its focus on the ways such inferential processes—themselves both generating of, and generated by, representations—may be distributed (or not) across long chains of temporally and spatially displaced agents.

In a Peircean framing, three forms of reasoning are exemplary of inference and may thereby serve as the roots and fruits of representations: deduction, induction, and abduction. As shown in Table 5.2, deduction is often understood to go like this: dogs are furry and Fido is a dog, so Fido must be furry. Induction is often understood to go like this: Fido is a dog and Fido is furry (and likewise for Bowser, Fluffy, and Rex), so dogs must be furry. And abduction is sometimes understood to go like this: Fido is furry, dogs are furry, so Fido must be a dog. However, rather than being merely an instance of affirming the consequent, abduction is actually a generator of hypotheses. Or, to write out this inference in less abstract terms: a surprising fact comes to light (Fido is furry); if some other fact were true (say, Fido were a dog), this first fact wouldn't be so surprising (because we already know that dogs are furry); thus, we may adduce that Fido is a dog (a hypothesis that could guide further investigation, and one worth entertaining even if eventually rejected). If induction is about generalization (one uses features of one or more tokens, or instances, to infer features of a type or class), abduction is about creation (inventing an hypothesis to explain an observed fact). All these forms of inference played a crucial role in the theory of transformativity offered in chapter 3 (and previewed in chapter 1), where it was shown that abduction can even generate new imaginaries

TABLE 5.2

Varieties of Inference

Deduction
If *something* belongs to class *C*, then *it* has property *P*; The individual *I* belongs to class C; Thus, *I* has property *P*.
Induction
The individual *I* belongs to class *C*; *I* has property *P*; Thus, if *something* belongs to class *C*, then *it* has property *P*.
Abduction as Affirming the Consequent (early Peirce)
The individual *I* has property *P*; If *something* belong to class *C*, then *it* has property *P*; Thus, *I* belongs to class *C*.
Abduction as Inference to Best Explanation (late Peirce)
Some surprising fact (F) is observed; If some hypothesis (H) were true, F would readily follow; Thus, there is reason to believe that H is true.

or entertainable ontological possibilities: who or what individual has which mental state, social status, or material substance, and what indexical propensities do such kinds entail. (And recall how our own reliance on inference was criticized in chapter 4, when it was argued that objects may just as often be directly perceived in the Gibsonian sense as indirectly inferred.) In any case, note that code-based forms of communication are stereotypically deductive, whereas most forms of communication (including those that are stereotypically code-based) are inductive and abductive in complicated ways that are massively entangled in context, and the modes of coherence that it evinces and organizes (as was intimated in chapter 2, and as will be developed in section 3, when ostensive-inferential communication is discussed).

Such are some classical understandings of inference.[7] As we saw in chapter 3, representations are particularly interesting signs insofar as they have propositional contents or *inferentially articulated* objects (in the semiotic sense). That is, the object (qua propositional content) of a representation may often be usefully framed as a correspondence-preserving projection from all the representations that could logically follow from it (and their propositional contents). Here we may note that such inferential articulation has some interesting conditions and consequences. In particular, if an object is a correspondence-preserving projection from all interpretants of a sign (in one framing), and if such interpretants may relate both to each other and to the original sign in logical ways (e.g., as conclusion to premise, proposition to presupposition, claim to entailment, and so forth), then the object in question is logically rich in a way that the purrs of cats, the interjections of people, and the functions of instruments are not.[8] (Though, to be sure, such nonpropositional semiotic processes get caught up with, or entangled in, propositional semiotic processes in complicated ways—most transparently through representational interpretants.) Interestingly, the logical relations in question are often made explicit in paraphrases of the meta-linguistic kind: "a dog is a kind of animal," "mutt is a pejorative word for dog," and so forth. Here, then is one site where public meta-representations make

explicit inferential articulations via the relative substitutability of the constituents in linguistic constructions. Note, then, that inferential articulation of propositional contents turns on both logical relations (such as material and formal deduction and induction) and linguistic relations (such as selection and combination, paraphrase and translation, synonym and antonym, and so forth). Indeed, it is often quite difficult, if not impossible, to separate out the two kinds of processes.

Crucially, this inferential richness of propositional contents (qua object types) may ground our folk intuitions that the states of affairs in question (qua object tokens) are "objects" in the stereotypic, reified Cartesian sense.[9] In particular, the representational interpretants of signs, inso-far as they are inferentially articulated in this way, project propositional contents onto the objects of signs, thereby making those objects relatively explicit, concrete, precise, and bounded—or enclosed in the various ways this term was defined in chapter 3. Contrast, for example, the object of a cat's purr when the interpretant of such a sign is energetic (e.g., continuing to pet her) versus representational (e.g., saying "the cat must be content"), with all the latter's possible logical and linguistic presuppositions and entailments.[10]

CREATION, INCORPORATION, AND COMPLEMENTATION REVISITED

As may be seen from these examples, besides involving creation (as signs that beget interpretants) inferential processes involve *incorporation*. In particular, to continue with our example, propositions are composed of concepts (delimiting individuals, classes, and properties) and arguments are composed of propositions (such as premises and conclusions, as well as antecedents and consequents). To understand the inferential articulation of representations, then, one needs an account of both the conceptual structure of propositions and the propositional structure of arguments. For the moment, such structures are being treated in relatively simple terms—when speech acts are introduced, the lexical and grammatical structure of propositional contents, as well as the discursive structure of arguments, will be further clarified. In short, like the constituents of the residential whole, the components of cognitive processes may be both incorporated parts and incorporating wholes.

Moreover, inferential processes involve *complementation*. For example, to move from one relatively foregrounded belief (qua premise) to another relatively foregrounded belief (qua conclusion) requires a network (context or infrastructure) of relatively backgrounded assumptions (qua auxiliary premises), and thus an ontology more generally. For example, one cannot get from a belief that it is raining to an intention to open one's umbrella without a belief that opening one's umbrella would keep one dry (as well as a desire to stay dry). That is, the same belief may require other beliefs (perceptions and intentions) or be required by other beliefs (perceptions and intentions), to make an inference. In short, the components of cognitive processes may be both complemented figures and complementing grounds. Note, then, that just as creation, incorporation, and complementation organize the residential whole, so too do they organize the representational whole. And again, residence in the world, and modes of shared intentionality and cooperative communication

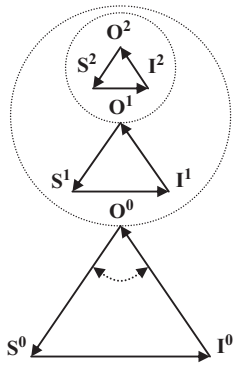

FIGURE 5.1 Embedding

more generally, are often key factors determining which beliefs (intentions, perceptions, etc.) get framed as the complementing ground of any inference.

FROM ENCHAINING TO EMBEDDING

So far we have focused on the *enchaining* of cognitive processes and, hence, creation more generally: a sign gives rise to an interpretant, which is itself a sign. With human agents, cognitive processes may also *embed*: a sign stands for an object, which is itself a sign, or semiotic process more generally. This is diagrammed in Figure 5.1. For example, a mental state may represent another mental state: I may have beliefs about another's beliefs, perceptions, or intentions; I may have intentions to change your beliefs or intentions, and so forth. In other words, whatever is represented may itself be a representation, or include one or more representations within it. Indeed, not only may I represent what you believe and that you believe it (qua sign-object relation, or content and mode), I may also represent what your belief will give rise to (qua interpretant of it as a sign-object relation, or reasons that follow from it) as well as what gave rise to your belief (qua sign-object relation of which it is an interpretant, or reasons that lead to it). In short, cognitive processes may reflexively make reference to themselves.

With embedding, the propositional contents of inferential processes incorporate relatively complex concepts such as *belief*, *perception*, and *intention*. For example, in addition to having representations such as *Fido is a dog* and *dogs are furry*, one has representations such as *John believes that Fido is a dog*, and even *belief is a weak form of knowledge*. That is, just as mental states may be predicated of people, properties may be predicated of mental states. Our mental states, like our social statuses and material substances, can be both figure and ground of our ontologies. And just as representations are caught up in reasoning, so too are representations of representations. For example, one may make deductions, inductions, and abductions about the mental states of others. To return to our earlier example: *Jake took his umbrella; if Jake believes it will rain, taking his umbrella would be a matter of course; so Jake probably believes that it will rain*. That is, we may reason about the

reasoning behind both our own and others' representations (which plays a key role in the transformation of ontologies).

Just as the enchaining of cognitive processes is often called "thinking," the embedding of cognitive processes is often called "thinking about thinking" (and, in the case of speech acts, "speaking about speaking"). A phenomenon known as *intensionality* (notice the spelling) may arise because of this (see Frege 1997 [1892]). In particular, one can represent the incoherence or "subjectivity" of another's representation (relative to one's own standard of coherence or one's own sense of "objectivity"). For example, not only may I believe that the man over there is a spy, I may also believe that John believes that the man over there is a waiter. Indeed, I may represent why John believes this (given his past perceptions and beliefs); and I may represent what John will say and do (given his future beliefs and intentions). That is, I may represent where exactly his representations went awry as well as the ramifications of this. Tests turning on intensionality are the classic locus for theory of mind, for example, the ability to pass a false-belief task (cf. Wimmer and Perner 1983).

Such issues are so important for understanding and sharing intentionality that sections 3 and 4 will be devoted to them. For the moment, it is worth noting one related property of certain mental states: the degree to which one is "conscious" of holding them. Crucially, as we saw in chapter 4 when we reinterpreted Anscombe's idea of acting under a description, to have an intention in the stereotypic sense is to self-reflexively commit to a representational interpretant of one's purpose (such that one can self-sanction accordingly). It is not enough that others attribute to one the mental state in question; rather, one must reflexively attribute it to oneself. Similar claims may be made about other mental states: for one to have a belief (perception, memory, plan, and so forth), in the stereotypic sense, requires that one be able to reflexively commit to a representational interpretant of it, such that one can self-sanction depending on whether one's actual behavior conforms to the norms of coherence that would be in place, and such that one can make it explicit (via a speech act) if the situation calls for it.[11] Such semiotic self-reflexivity is a pragmatic way of reframing self-consciousness (regarding the mental state in question). And it also shows a key way that one may be *unconscious* of one's mental states (social statuses or material substances): to be constituted by kinds that are caught up in coherence relations (logical, causal, normative, etc.), but to which one is not reflexively committed.

In this regard, Peirce had a beautiful critique of Descartes: the issue is not, I think therefore I am; rather, it is *I err therefore I am* (1992b [1868]). In particular, such explicit and self-conscious representations of our own mental states, and, hence, our sense of a private self may come to the fore only in the context of error. In particular, perhaps it is only in contexts of manifest incoherence (between, say, my beliefs and the world, or my beliefs and your beliefs, or my beliefs and my assertions, or my assertions and your assertions), that we become conscious of, or have a large degree of practical and theoretical agency over, our own cognitive processes. Note the direct relation to intensionality, as just described: you err, therefore you are (in contrast to me). We will return to these issues in chapter 6 when selfhood is theorized.

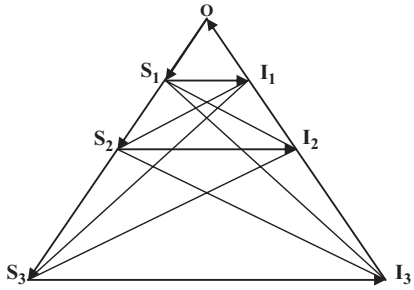

FIGURE 5.2 Flexibility and Displacement

FLEXIBILITY AND DISPLACEMENT

Two other kinds of leeway are both enabled by and reflective of cognitive processes. First, there may be multiple mappings between a representation and whatever it represents, and there may be multiple remappings between a representation and whatever it gives rise to. This is diagrammed in Figure 5.2, if understood as a space of possible mappings and remappings. That is, there are many possible signs (S_1, S_2, S_3) of the same object (O), and many possible interpretants (I_1, I_2, I_3) of the same sign (S). In part, this is due to different indexical and inferential enchainings; in part, this is due to different conceptual contents; and, in part, this is due to different complementing and incorporating cognitive processes. For example, the same state of affairs may be represented by many different beliefs (though we both saw the same event, we remember it in different ways), and the same belief may give rise to many different intentions (though we both believe it's going to rain, we undertake different preparations). Cognitive processes are *flexible*.

And second, there may be more or less spatial and temporal distance between a representation and whatever it represents, and there may be more or less spatial and temporal distance between a representation and whatever it gives rise to. This is also diagrammed in Figure 5.2, if understood as a manifold of space and time. That is, a sign may be spatiotemporally displaced from an object, and an interpretant may be spatiotemporally displaced from a sign. For example, the intention that a belief gives rise to may be more or less distal from the perception that gives rise to the belief, and the state of affairs that the intention gives rise to may be more or less distal from the state of affairs that gives rise to the perception. As was discussed in chapter 3, media function as both sign-object (code) and signer-interpreter (channel) buffers, allowing differing degrees of displacement along both these relations (not to mention all the other relations diagrammed in Figure 2.9). Cognitive processes are *displaceable*.

FRAMING REVISITED

Implicit in the foregoing analysis is the idea of *framing* that was introduced in chapter 2: the same entity or event may be understood as a component of different

semiocognitive processes, depending on the interests of an actor or the stance of an observer. See Table 5.3. To briefly review some of the kind of frames in question, what is a sign-component of one cognitive process may be the interpretant-component of another cognitive process. This is akin to a future-oriented versus past-oriented perspective. What is the object-component of one cognitive process may be the sign-component of another cognitive process. This is akin to a lower-order versus higher-order perspective. Just as cognitive processes can be successively enchained to produce longer cognitive processes, the entire process may be framed as a single cognitive process (or vice versa). This is akin to taking a distal versus a proximal perspective. We may take certain propositional wholes as complemented figures, leaving out their conceptual parts and complementing grounds. There are other figure-ground and other part-whole perspectives to be taken; thus, it is usually an analytic decision as to what is incorporated and what is incorporating, or what is complemented and what is complementing. And finally, one may switch from a private frame to a public frame—the usual arena where anthropologists (and ethologists) try to work given the kinds of data they have access to in the field. This is akin to taking an actor-centered versus an observer-centered perspective. Crucially, no perspective is primary: our diagrams of generativity are themselves generative; our analysis of significance and selection is itself significant and selected (not to mention sieved and serendipitous).

In short, when subject to various framings, the foregoing claims fall out as natural entailments of the theory of meaning developed in earlier chapters. Our theory of significance and selection, though much broader in scope, easily handles all the stereotypic features of mental states, and cognitive processes more generally. The semiotic stance effortlessly incorporates the intentional stance, and goes far beyond it.

3. Discursive Practices

It should be emphasized that most of the properties discussed in the last section are also characteristic of speech acts—that other form of intentionality, qua representation (significance) and satisfaction (selection). Indeed, so much of what we think about thinking arises by way of how we think about speaking or speak about thinking (Kockelman 2010a). We are so often only minding language when we talk about mind. While this section focuses on discursive practices, or semiocognitive processes whose sign-components are public representations, it will thus necessarily tack back to cognitive representations.

MODE AND CONTENT, SUBSTANCE AND STRUCTURE, ROOTS AND FRUITS

Stereotypically, whatever represents has both a *content* and a *mode*. If the content specifies what conditions must be satisfied, the mode specifies how those conditions

TABLE 5.3
Types of Framing

	Some Possible Frames	
Component as sign versus interpretant	**Future**	**Past**
Component as sign versus object	**Low-Order**	**High-Order**
Diagram iterated versus stretched	**Distal**	**Proximal**
Component incorporated versus incorporating	**Part**	**Whole**
Component complemented versus complementing	**Figure**	**Ground**
Cognitive process is private versus public	**Actor**	**Observer**

must be satisfied. The content is usually understood to be a proposition. In the case of speech acts, it is whatever can be asserted, questioned, commanded, and so forth. And in the case of mental states, it is whatever can be perceived, believed, intended, and so forth. What is crucial, however, is that there exists a systematic mapping between whatever represents and whatever is represented. The mode is usually understood to be a speech act or mental state shorn of its propositional content. In the case of speech acts, it is a kind of illocutionary force: such as declarative, interrogative, or imperative. And in the case of mental states, it is a kind of psychological attitude, such as perception, belief, or intention. What is crucial, however, is that there exists a systematic remapping between a representation and whatever it will give rise to (or whatever has given rise to it). In short, if the content foregrounds the O-S relation, the mode foregrounds the S-I relation.[12] These relations are shown in Table 5.4.

The content stereotypically turns on the interaction of *substance* and *structure*. In the case of speech acts, substantive content is due to lexical categories: words such as *boy* and *dog*, *chase* and *see*, *mean* and *little*. And structural content is due to grammatical categories: words such as *I* and *some,* affixes such as *–ed* and *–ing,* and abstract construction types more generally: noun phrase, transitive verb, and dependent clause.[13] Crucially, many such abstract construction types have the property of being *self-incorporating*: any whole can have as one of its parts another such whole, and so on infinitum: *I believe that she thinks that he intends that I remember*; *the boy's mother's friend's sister.* Sometimes the distinction between substance and structure is phrased in terms of lexicon and grammar (Talmy 2000). For present purposes, what matters is that, with such substance and self-incorporating structure, a speaker may generate an infinite number of more or less complex sentences representing an infinite number of more or less complex states of affairs: I saw a little dog being chased by some mean boys. (Contrast the scope of object-sign mappings possible with animal signal systems, as per our example in chapter 2.) While this is the most famous kind of generativity (essentially an O-S mapping, turning on incorporation), each of the other kinds of generativity (flexibility, creativity, or agency) discussed above (themselves involving both O-S mappings and S-I remappings, turning on complementation and creation as much as incorporation,

TABLE 5.4

Features of Representations

Whatever Represents Mental States or Speech Acts			
Content What Conditions Must Be Satisfied		**Mode** How Conditions Must Be Satisfied	
Substance "Words" or Open Class Categories	**Structure** "Rules" or Closed Class Categories	**Roots** Conditions, both Logical and Causal	**Fruits** Consequences both Logical and Causal

and grounded in indexicality as much as inference) is just as important and yet often neglected in celebrations of human-specific cognitive and communicative capabilities.

The mode turns on the interaction of *roots* and *fruits*. As a public representation, a speech act stereotypically follows from a private representation (say, an intention of the speaker) and stereotypically leads to a private representation (say, a belief of the addressee). That is, a speech act is at once the interpretant of a sign-object relation and a sign-object relation to be interpreted. Moreover, the speaker's intention may itself have roots (such as other beliefs, perhaps following from past perceptions), and the addressee's belief may itself have fruits (such as further beliefs, perhaps leading to future intentions). Such remappings may be more or less complex, often as a function of complementation. (Contrast the scope of sign-interpretant remappings possible with animal sign systems, as per our example in chapter 2.) In this way, the conditions for, and consequences of, any speech act radiate out in two directions—generated by and generating of further representations, themselves more or less subject to substantive and structural transformations and more or less grounded in and grounding of modes of residence in the world. Representations may both develop and devolve.

TOKEN AND TYPE, TYPICALITY AND ATYPICALITY, REGIMENTATION AND SELECTION

Both the content and the mode are subject to the distinction between *token* (instantiated) and *type* (selected) that was introduced in chapter 3. For example, whatever represents, qua sign (S), exists as both type (sentence) and token (utterance). And whatever is represented, qua object (O), exists as both type (proposition) and token (state of affairs). Thus, just as the same sentence ("it's raining") may be instantiated by many different utterances (each said on a different occasion), the same proposition may represent many different states of affairs (any situation that fits the proposition). Moreover, whatever a representation gives rise to (qua interpretant

relative to which it is a sign), or whatever gives rise to a representation (qua sign relative to which it is an interpretant), exists as both type and token. In returning to Austin's classic account of performativity (2003 [1955]), to focus on the felicity conditions of a speech act is to focus on its typical roots and fruits, whereas to focus on the communicative intention of the speaker (or "speaker meaning") is to focus on the tokened roots. And to focus on the perlocutionary effect on the addressee (or "addressee response") is to focus on the tokened fruits. In some sense, then, to focus on types is to foreground the general properties of sign-object-interpretant relations (such as how and why they were selected on sociohistorical scales, or their legi-function), and to focus on tokens is to foreground the specific properties of sign-object-interpretant relations (such as why and how they were instantiated on interactional scales, or their sin-function).[14]

To invoke types, and thereby presume *typicality*, opens the possibility of *atypicality*: tokens not conforming to types due to the strategy of actors or the contingency of events. In the case of mental states, this was already discussed under the heading of incoherence: perceptions can be nonveridical, beliefs can be false, intentions can be frustrated. But it is just as applicable to speech acts: a speaker may not believe what she asserts or not intend what she promises, and an addressee may not believe what he is told or not behave as he is commanded. In other words, the tokened roots and fruits of a speech act need not conform to the typical roots and fruits: The communicative intention (of the speaker) may be at odds with the conventional felicity conditions (of the sentence), and both of these may be at odds with the perlocutionary effect (on the addressee). As noted in chapter 3, speech act theory, as inaugurated by Austin, is in part the elucidation of types by attending to the ramifications of atypical tokens. One explains what something does, or why it was selected, by reference to the possibilities of its going awry—being framed as inappropriate in context, ineffective on context, or incoherent more generally. Falsity is only one mode of failure among many. Parasites proliferate.

In some sense, then, Austin's notion of felicity conditions was a way of getting at relatively conventional forms of pragmatic coherence (as well as semantic, grammatical, and phonological coherence) by attending to a variety of highly salient (if imagined) failures-to-cohere. And, again, some of Goffman's key insights focused on the way speakers routinely and reflexively, as well as creatively and coherently, flout such conventional felicity conditions.

As we saw in chapter 3, to invoke types requires an account of *regimentation*: tokens conforming to types via processes that may range from causes to norms but which are usually most fruitfully analyzed in terms of intersubjective coherence, as we saw in chapters 3 and 4.[15] And as we saw in chapter 2, natural selection is itself the ur-form of regimentation: most other modes of selection and significance spring from it. For example, the dispositionality of the human species, which underlies norms, was arguably selected for on evolutionary time scales and gives rise to cultural regimentation on historical time scales: types of behaviors that one may or must (not) do in types of circumstances. And the capacity to

represent and communicate norms, thereby creating rules and laws, is itself arguably grounded in our species-specific facility with mental states and speech acts. Moreover, even personal motivations, underlying practical reasoning and rational choice, may make reference to the norms, rules, and laws of one's community (as well as its beliefs and values), and the inferential and indexical coherence underlying all such forms of reasoning arguably resides in neurocognitive processes (among other things, such as norms determining what counts as coherent) that are certainly adaptations. In short, semiocognitive processes are regimented on phylogenetic, historical, ontogenetic, and interactional time scales; and, therefore, they make reference to properties that are unique to species, cultures, individuals, and intersubjects (or generalized others). Such forms of regimentation are often akin to meter in poetry: they are simultaneously the source and shackle of human creativity.

SPEECH ACT THEORY, CONVERSATIONAL ANALYSIS, AND SEMIOTIC ONTOLOGY

It is worth stressing that here we are focusing on speech acts in their stereotypic sense, qua utterances whose propositional contents and illocutionary force are more or less explicit. As we saw in chapter 3, such speech acts are relatively emblematic signs of such propositional contents and illocutionary forces—and thus more or less emblematic of the actions being undertaken by the speakers in uttering them (though themselves often key sites of parasitic processes: irony, feigning, exaggeration, etc.). In contrast, most discursive practices are not so explicit (certainly in regard to what action is being performed and often in regard to their propositional contents as well). In this way, most discursive practices are not speech acts in the stereotypic sense, and their functions as instruments, like their purposes (or intentions) as actions, can be elucidated only by reference to their embedding in "context." In particular, discursive practices are embedded in the residential whole and the representational whole: temporally, spatially, and socially distributed networks of other utterances and assumptions, as well as other affordances, instruments, actions, roles, and identities, that regiment their meaning via relatively reframable coherence relations such as incorporation, complementation, and creation. For example, everything we said about instruments in the opening example of chapter 4 applies to discursive instruments (such as utterances) as much as stereotypic instruments (such as hammers). Chapter 4, then, was as much a theory of (and a method for analyzing) discourse patterning and conversational structure as it was a theory of material culture. Note, then, that, pace the mantra of certain conversational analysts (see, for example, Schegloff 2007), the meaning of any discursive practice is regimented by far more than simply its "composition" (qua linguistic categories) and "position" (qua placement in a sequence of other utterances). It is regimented by residence in, and representations of, the world.

COMMUNICATIVE AND NONCOMMUNICATIVE ACTION REVISITED

Speech acts, and communicative moves more generally, are actions: instigations caused by intentions. One must therefore understand how they are similar to, and different from, *noncommunicative actions,* such as picking a lock, pushing a button, removing a spot, and so on. These are diagrammed in Figure 5.3 (itself an expansion of the right-hand side of Figure 2.8). To review the discussion from chapter 2, an intention (S_2) represents a state of affairs (O_2). For example, one intends *to start the engine*. It indexically gives rise to an instigation (I_2) that either immediately constitutes (C_1) or eventually causes (E_1), the state of affairs represented. For example, whereas the agent's instigation ends at turning the key (I_2), this is itself the cause (C_1) of a further effect (E_1), such as the engine's actually starting (which is mediated by considerations outside of the agent's immediate control: wiring, batteries, etc.). And, as we saw in chapter 4, following Davidson (1984), the intention (S2) may itself be the conclusion (I_1) of an inference involving a complemented belief (S_1) and a complementing pro-attitude (such as a desire, status, or value). For example, one believes that starting the engine is a means to driving to the cinema as an end, and one wants to drive to the cinema (because one wants to see a movie, neck with one's sweetheart, and so on).[16] This is what it means to say an intention has inferential roots (practical reasoning) and indexical fruits (causal chaining).[17]

All this may now be couched in slightly different terms. We said that whatever represents (such as an intention) has both a content and a mode: the content specifies what conditions must be satisfied, and the mode specifies how those conditions must be satisfied. In particular, we may say that an intention represents its satisfaction conditions: a certain state of affairs is to be brought about (content), this state of affairs is to be caused by the intention (fruits), and this intention is to be justified by a reason (roots).[18] In short, as with the felicity conditions of speech acts, to specify the satisfaction conditions of an intention is to specify how it may go awry or fail to be satisfied. In chapter 4, such conditions were couched in terms of (self-reflexive) commitment to a representational interpretant of one's actions—as hence an ability to self-sanction whenever one or more such satisfaction conditions are *not* satisfied.

As diagrammed in Figure 5.4, *conventional communicative action* is more complicated. Suppose, for example, one intends *to say that Jake got arrested*. Here the instigation (I_2) is itself a public representation: a speaker (A^{Spkr}) utters a sentence with propositional content (Jake's getting arrested) and illocutionary force (declarative). That is, unlike the case of noncommunicative action, where the instigation either constitutes or causes the state of affairs in question, here the instigation is itself a sign (S_3), to be interpreted by an addressee (A^{Adr}), and thereby gives rise to a belief (I_3). As a public representation, the speech act itself has satisfaction conditions (it should arise from a communicative intention and give rise to a belief). And to say that a communicative action is conventional is to say that the satisfaction conditions of the speech act (qua "sentence meaning") are in accordance with

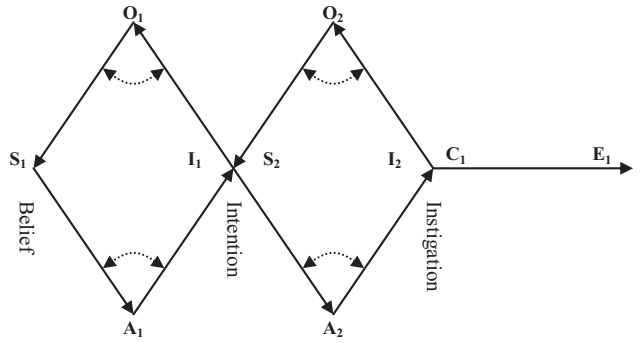

FIGURE 5.3 Noncommunicative Action

the satisfaction conditions of the intention (qua "speaker meaning"): the speaker is using the sentence as it would usually be used (cf. Austin 2003 [1955]). Finally, as before, the intention (S2) is itself the conclusion (I_1) of an inference involving a contextualized belief (S_1) and a contextualizing pro-attitude (such as a desire, obligation, or value). For example, one believes that informing the addressee of Jake's fate is a means of eliciting sympathy, and one wants to elicit sympathy (because one wants to obtain money, and so on). Thus, communicative actions also have inferential roots (practical reasoning) and indexical fruits (causal chaining)—but their indexical fruits are designed to yield further fruits, which turn on both interpersonal and inferential modes of coherence. Recall our discussion of semiotic instruments in chapter 4.

Crucially, as with noncommunicative actions, none of these steps need be consciously represented. And our evidence for their existence comes from attending to unsatisfied outcomes, and the self- and other-sanctioning and inference-drawing practices that arise in such contexts: the times one tried to speak (but one's tongue was tied); the times one started to speak (but forgot what one wanted to say); the times one spoke (but lied or was misunderstood); the times one blurted something out (but unintentionally so); and so on. At the very least, all are but potential moves in explicitly articulated and temporally retrospective rationalizations. To return to Heidegger's critiques of modern forms of representationalism, the emphasis on explicit mental content may often be but a projection onto, or misreading of, the actual modes of residence in the world that were there before the disturbance, or failure-to-cohere (as framed).

NONCONVENTIONAL COMMUNICATION REVISITED

As shown in Figure 5.5, *nonconventional communicative action* is even more complicated. It involves several key ideas. First, the signer (A^{Sgn}) instigates some behavior (I_2), which is itself a first-order sign ($S_3{}^{1°}$), that brings a state of affairs ($O_3{}^{1°}$) to the attention ($I_3{}^{1°}$) of the interpreter (A^{Int}). For example, in being asked what happened

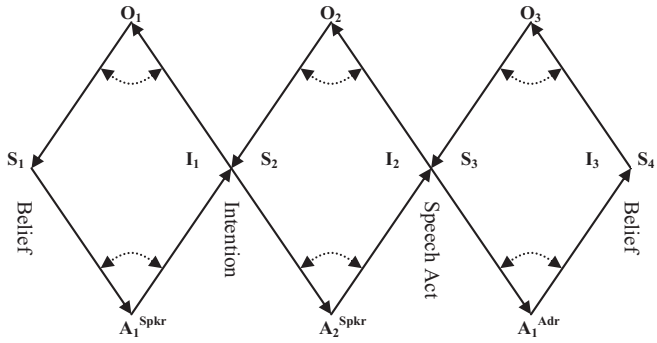

FIGURE 5.4 Conventional Communicative Action

to Jake, one may point to a passing police car or pantomime a badge and gun. Second, this state of affairs ($O_3^{1°}$) is itself a second-order sign ($S_3^{2°}$) that brings another state of affairs ($O_3^{2°}$) to the interpreter's attention ($I_3^{2°}$). For example, by attending to the police car that has been pointed to, or the badge and gun that have been pantomimed, and by attending to the fact that such points or pantomimes were intentionally addressed, the addressee may infer that Jake was arrested. And third, the inferential process from the first belief ($I_3^{1°}$) to the second belief ($I_3^{2°}$) turns on the interpreter's recognition of the signer's communicative intention (S_2). In short, the satisfaction conditions of such an intention are quite complex. They stereotypically involve not just the sign event that the intention gives rise to (pointing or pantomiming), not just the belief that this sign event gives rise to (there's a police car or there was a police officer), and not just the belief that this belief gives rise to by reference to the intention (Jake was arrested), but also the fact that these representations give rise to each other in this way (compare Grice 1989a, 1989c; Strawson 1971).

To return to our discussion of the inferential grounds of communication from chapter 2, and the Peircean reframing of Gricean inference, note the implicit *embedding*: the signer expresses a sign whose relatively concrete object (the police car pointed to or the police officer pantomimed) is itself a sign of a more abstract object (Jake's arrest)—and the interpreter can infer the second object only by attending to the fact that the first sign was intentionally addressed. Unlike conventional speech acts, there are no codes to decode (in getting from a police car or officer to Jake's arrest) and, hence, such modes of interpretation are relatively nondeductive. In other words, the first inferential step ($S_3^{1°}$- $I_3^{1°}$) is often relatively concrete and immediate: the interpreter looks where the signer points (indexically), imagines what the signer pantomimes (iconically), and decodes what the signer says through conventional means (symbolically), or some combination of all three. Whereas the second inferential step ($S_3^{2°}$- $I_3^{2°}$) is relatively abstract and amplicative: the interpreter infers some further information from what was pointed out or pantomimed (or encoded), as contextualized by their recognition of the signer's communicative

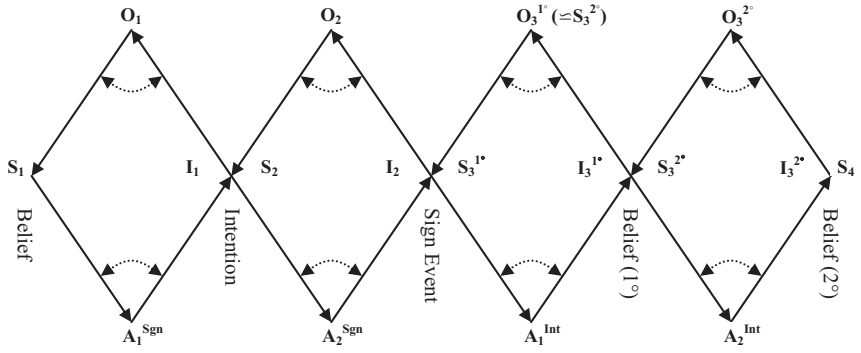

FIGURE 5.5 Nonconventional Communicative Action

intention (and, in particular, the broader context, which turns on residence in the world as much as representations of the world and, hence, potentially all the modes of coherence discussed in this chapter and the last). In this example, the inference is relative abductive: some surprising fact has come to light (the signer has pointed to a police car or pantomimed a police officer rather than directly answering my question); if the signer intended to inform me that Jake was arrested, pointing or pantomiming in such a way would be a matter of course (a relatively efficient, and covert way, to get the information across, given what we both know we both know); thus, I may infer that Jake was arrested (which is subject to confirmation or rejection in the ensuing interaction).

Such an ability to amplify the meaning of information by contextualizing it with a communicative intention is the heart of Gricean implicature (Enfield 2009; Levinson 1983, 2000; Sperber and Wilson 1995 [1986]; Tomasello 2008). However, such a process is much broader than Gricean implicature. For example, any non-natural sign—be it naturally selected, culturally regimented, or conscious addressed—is easier to interpret if one knows that the expression of the sign was selected for the sake of securing an interpretant. Indeed, it is often impossible to interpret otherwise. As we saw in chapter 2, psychoanalysis was fundamentally committed to a kind of implicature: by attending to the overt or first-order meaning of a dream (parapraxis or neurosis), in the context of its having been causally mediated by a forbidden wish of a sexual nature, analysts may infer its covert or second-order meaning.

GENERALIZING THE GENERALIZED OTHER: SHARED INTENTIONALITY

Humans *have* intentionality: they interact with the world using representations of the world (I believe that…). Humans *understand* intentionality: they interact with the world using representations of others' representations of the world (I believe that you believe that…). And humans *share* intentionality: they interact with the world using overlapping representations of each other's overlap in representations

(we believe that we believe that . . .). In this section, building on some ideas of Peirce and Mead, in the context of modern interpretations of Grice, we will see how language enlists shared intentionality as a means and offers shared intentionality as an end.[19]

Recall Figure 3.2, which showed how semiotic processes turn on relations between relations. As the outcome of a semiotic process, there is a relation of correspondence between the relation between a sign and an object, on the one hand, and the relation between an interpretant and an object, on the other. Or phrased in terms of representations and semiotic agents, the interpreter's representation of an object more or less corresponds to the signer's representation of an object. Such *correspondence of representations* is fundamental to human communication, not only as the ends of communication, but also as the means. In particular, for most forms of communication to succeed requires that the signer and interpreter already have many representations in correspondence. In particular, *one of the key representations they need in correspondence is what representations they have in correspondence*. And for this to happen, not only do they need relatively symmetric access to the same modes of residence in and representations of the world (ranging from the conceptual contents of words to the emblematic indices of kinds), but they also need relatively symmetric access to the fact of their relatively symmetric access.

In chapter 3, this process was framed in terms of intersubjective attitudes toward each other's social statuses and mental states, or kinds more generally (qua generalized others of various scopes and durations), and the importance of relatively emblematic indices (of such social statuses and mental states) was foregrounded (as well as the mediating effects of ontologies and frames more generally). And, in this chapter and the last, we saw that other kinds of objects were also important—from purchases and values to affects and moods. Crucially, correspondence of representations (or intersubjectivity of attitudes) does not mean equality of representations. The relation in question is not between the representations themselves, but between the relation between the representations and their objects. What matters is that both representations relate to the same object in similar ways. Moreover, to have representations in correspondence does not require being "conscious" of them, or of their correspondence. What matters is that the signer and interpreter, or self and other, could commit to the truth of such representations (including the representation of the correspondence of their representations) if called upon by events in a given context. (Recall our discussion of the publicness of the privateness of meaning from chapter 3.) Finally, not all representations in correspondence are equally accessible or important to self or other in a given context. They may be more or less in focus, and more or less relevant, given ongoing concerns—in particular, current modes of residence in the world and representations of the world within particular framings. In some sense, all of this was a generalization of Mead's generalized other.

While such processes are at issue in any form of communication, their fundamental importance is most transparent in inferential communication of the Gricean

kind. To return to our discussion from chapter 2, as reframed above, the crucial point is this: to intersubjectively attend to the relatively concrete object, and then to use this object as a sign to intersubjectively attend to the relatively abstract object, requires already existing modes of intersubjective attention. Loosely speaking, to understand *what* I'm pointing at (or to imagine what I'm pantomiming) and, in particular, to understand *why* I'm pointing at it (or why I'm pantomiming it), requires already existing intersubjective attitudes as to what we both perceive, believe, and intend (just as it produces subsequently existing intersubjective attitudes). In short, human interaction *builds up an intersubjective space by building with an intersubjective space*: context, text, and culture are the roots and fruits of each other. In this way, having started from the relation between significance and selection, qua intentionality, we have arrived at *the relation between semiocognitive processes and sociohistorical commons,* qua interaction and infrastructure, or interpretation and ontology.

4. From Theory of Mind to the Interpretation of Signs

If the first three chapters of this book focused on *mind in signs*, and if the last two sections of this chapter focused on *signs in mind*, this section and the next focus on *signs of mind*. In particular, we now return to some key concerns of chapter 3: how a mental state may be understood as an ultimate (representational) interpretant: any number of different signs can lead to it (constituting its "roots") or follow from it (constituting its "fruits"). Part of what it means, then, to understand the behavior of others as intentional (and semiocognitive more generally) is to be able to infer such fruits from such roots, or such roots from such fruits, by reference to the putative mental states that mediate between them. Crucially, unlike the last two sections in which intentionality was framed in relatively private, or actor-centered, terms, in this section and the next intentionality will be framed in relatively public, or observer-centered, terms.

ANTECEDENT EVENTS, CONSEQUENT EVENTS, AND MEDIATING PROPENSITIES

In chapter 3, it was argued that many interpretants are *ultimate interpretants*: They involve a change in social status or mental state, where such statuses and states may be understood as projected propensities to signify, objectify, and interpret in particular ways.[20] Because such ultimate interpretants are not signs that stand for something else, but rather projected propensities to signify, objectify, and interpret, they are relatively imperceptible—being known only through the signs that *lead to* them (insofar as they are interpretants) or the semiotic patterns that *follow from* them (insofar as they are propensities to signify, objectify, and interpret, or exhibit indices more generally).[21] In particular, such ensuing patterns, as second-order signs of the mental states or social statuses in question, are themselves often relations between

first-order signs and interpretants. That is, because you do X (qua interpretant) in the context of Y (qua sign), I infer you believe Z. For example, because you raise your hand when I ask a question, I believe you (think) you know the answer. Or because you open your umbrella when it starts to rain, I believe you want to stay dry. More generally, the fact that another engages in certain semiotic processes, or exhibits certain indices more generally, is a relatively indexical sign that one may use to infer their beliefs, intentions, memories, desires, and so forth.

For the sake of simplification, the basic structure of these *mediating propensities*, with their roots and fruits, is shown in Figure 5.6. There is a class of antecedent events, or roots (labeled A1, A2, A3, etc.). This is the class of signs that lead to the mediating propensity (so far as it is an interpretant of them).[22] There is a class of consequent events, or fruits (labeled C1, C2, C3, etc.). This is the class of semiotic processes that follow from the mediating propensity (insofar as it disposes one to signify, objectify, and interpret in particular ways). And there is the nonperceptible but inferable mediating propensity (MP) itself. This is the mental state in question—itself a particular sort of kind. In short, agents who understand others in intentional terms may perceive any root (or fruit), infer the mediating propensity, and thereby come to predict any fruit (or root) that would be relatively coherent in the context of that propensity (given the experience of the interpreting agent, the norms of some semiotic community, various modes of residential and representational coherence, and ontologies more generally).

In one sense, this is simply a generalization of one basic fact about kinds that was discussed in chapter 1: upon perceiving an index (and framing it as an index), an interpreting agent may infer a kind, and thereby come to expect other indices that would be in keeping with that kind (given the agent's ontology, other indices, and so forth). Here, however, the agent is more or less attentive to the transformations of kinds that another agent may undergo (e.g., changes in its beliefs, feelings, desires, etc.) insofar as it too is an interpreting agent. Indeed, both agents may be more or less undergoing any of the kinds of transformativity discussed in chapter 3 (and more or less attending to this fact in themselves and the other).

Notice, then, that the antecedent events, like the consequent events, are a relatively heterogeneous lot. Their commonality is not sensual or substantive (qua tokens of a common type), but rather semiotic or functional (qua interpretants of a common sign-object relation). What is at issue, then, is not a set of pairings between individual antecedent events (qua causes or stimuli) and individual consequent events (qua effects or responses), but rather a mode of mediation between the class of antecedent events and the class of consequent events. And thus to infer fruits from roots, or roots from fruits, is not the same as inferring effects from causes or responses from stimuli (in the stereotypic sense of these terms). Rather, the triadic structure of mediating-propensities begins to look like dyadic structure of stimulus-response pairings only in the limit that, relatively speaking, (1) all antecedent events are sensibly alike and all consequent events are sensibly alike, (2) the consequent sign events immediately follow the antecedent sign events, and (3) no mediating

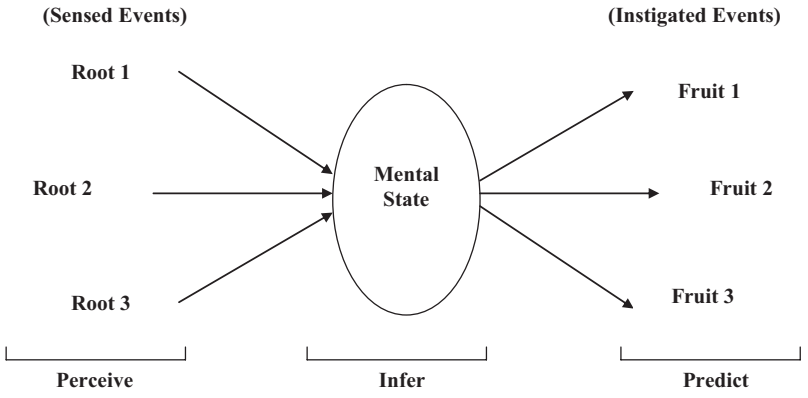

FIGURE 5.6 Roots, Fruits, and Mediating Propensities

propensity is required to explain the relation. While many animals may be good at understanding intermediaries (qua various modes of secondness), our focus here is on the human animal's particular ability to understand, or at least project, mediaries (qua various modes of thirdness).

HAVING SEMIOTIC PROCESSES AND UNDERSTANDING THE SEMIOTIC PROCESSES THAT OTHERS HAVE

Note, then, that just as mediating propensities fall out naturally when semiotic processes (and their agents) are framed in a particular way, inferring the mediating propensities of another, by reference to their roots and fruits, is itself a semiotic process. Thus, rather than speaking about having intentionality and understanding intentionality (in terms of representations with propositional contents), we may speak of *having semiosis* and *understanding semiosis* (in terms of semiotic processes more generally). And just as there are agents who engage in semiotic processes, but do not understand others' engagement with semiotic processes, there are also agents who understand relatively nonsemiotic agents in semiotic terms (and thereby project potentially unwarranted semiotic abilities onto them).

In some sense, the ability to understand others' understanding of semiotic processes is directly related to the third dimension of practical agency and, hence, Mead's notion of the symbol: commitment to the interpretant of one's sign-object relation, when the semiotic process in question has been displaced or deferred. In particular, the issue is not, how would I respond to my sign (and thus how would you respond), but how would I respond to the sign you are experiencing (but I'm not necessarily expressing) and, thus, how would you respond. Such inferences may be enabled by empathy-like processes: I know what you think (or how you feel) for I know what I would think (or how I would feel) if I were in your shoes (semiotically speaking). And such an ability to defer and displace commitment is partially

grounded in perceived overlaps between the signer and interpreter's modes of residence in and representations of the world (Kockelman 2010a, 2011a). For example, the degree to which self and other are ontologically similar (e.g., both have the same types of inalienable possessions, or selfhood-as-ensemble more generally) or the degree to which self and other are *ontologically intimate* (e.g., both have the same tokens of inalienable possessions, often thereby constituting part of a single unit of accountability).[23] As we will see below, and in the next chapter, such abilities are graded rather than absolute.

MEDIATING PROPENSITIES AND MENTAL STATES

As theorized in chapter 4, such mediating propensities not only include the objects of the representational whole (qua mental states in the stereotypic sense), but also the objects of the residential whole (for example, purposes, statuses, and values). Indeed, as was discussed in chapter 3, and will be further discussed in chapter 6, the so-called emotions have a similar structure (albeit with potentially less flexibility and displacement, which is one reason they seem to be more like seconds than thirds, or intermediaries rather than mediaries). For example, "anger" as a mediating propensity can follow (as an interpretant) from any number of antecedent events (reading the headlines, not sleeping, spilling soup), and can lead to any number of consequent events, qua patterned semiotic processes (becoming irritated by car alarms, being brusque with the questions of children, taking personal offense at graffiti, and so forth).

Crucially, then, mediating propensities need not be understood only in terms of mental states: social statuses and material substances, as well as modes of affect and value, and kinds more generally, are organized in similar ways. What is important about mental states, rather, is that, *relatively speaking,* the relation between roots and mediating propensity, and between mediating propensity and fruits, is both indexically and inferentially articulated. Relatedly, mental states can be the roots and fruits of other mental states (without first passing over into speech acts, or other public behaviors). And, hence, processes of inference may involve making reference to a range of inferentially and indexically interrelated mental states, themselves grounded in various modes of coherence, and all ostensibly private. Indeed, it is precisely the richness of such inferences that many forms of literature explore, and which the last two sections made explicit: causality, rationality, coherence, incorporation, complementation, enchaining, embedding, intensionality, flexibility, displacement, intersubjectivity, and parasitism. Needless to say, these types of patterns make behavior exceptionally complicated, and they make interpreting behavior necessarily holistic and frame-dependent. Typically, the assumption of coherence enables certain modes of inference, including modes of inference that arise only in the context of manifest incoherence: *Why in the world would she do that?! (Well, if she believes X and wants Y, then doing that would made sense.)*

That said, given the claims of chapter 4 regarding the embeddedness of meaning-in-the-world, it may be hypothesized that mental states, like social statuses (and the objects of the residential whole, as well as kinds more generally), are often relatively perceivable (rather than inferable). Moreover, simply by attending to purchases, functions, purposes, statuses, and values (and attending to how others are attending to them), we may be able to navigate much of the world just fine most of the time. And finally, it may be the case that we turn to such inferential processes (regarding the representations of ourselves and others) only in the midst of breakdowns and incoherence. And thus, while we may take intentionality (in the stereotypic sense) to be the rule, this may be because we attend only to the exceptions.

JAMES, NEWTON, NIETZSCHE, AND NONHUMAN PRIMATES

Building on Aristotle's notion of a final cause, and Peirce's characterization of life (1955b:274–275), William James (1950 [1890]:6–8) had a prescient understanding of mediating propensities in relation to their fruits. Embellishing his famous example, a desire or intention to woo Juliet (as a mediating propensity), leads Romeo to produce a relatively heterogeneous class of consequent events (ringing the doorbell, knocking on the door, climbing the wall, sending a telegram, waiting for her to come outside, practicing the pole vault, and so on) such that if any one of these actions is frustrated, Romeo can try another, and such that an observer can explain Romeo's many disparate behaviors or actions (qua means) by reference to a single purpose or intention (qua ends). For James, then, any particular behavior (qua fruit) could lead an observer to infer an intention (qua mediating propensity), even if it failed to satisfy that intention, and the flexibility of such behaviors (qua means) in the context of such an intention (qua end) was itself a relatively emblematic sign of the presence of mind (or "purpose") in another for that observer.

For our purposes, in contrast, the question is not, what signs may be used to infer the presence of mind; rather, it is *what signs may be used to infer the presence of mind to infer the presence of mind*. In particular, there is a major difference between an agent with the capacity to understand event-sequences in terms of stimulus-response pairings, or secondness, and an agent with the capacity to understand them in terms of mediating propensities, or thirdness.

For example, in the literature on primate cognition, processes akin to mediating propensities have been called "mediating variables" (Whiten 1993) and "tertiary relations" (Tomasello and Call 1997:383). While such ideas are not theorized in terms of semiotic processes, they are there usefully generalized to include physical causes as much as psychological states.[24] Moreover, some very large claims have been cast in terms of these categories. In particular, Tomasello (1999) argued that while a nonhuman primate may understand "the antecedent-consequent relations among external events in the absence of its own involvement," it does not "understand the mediating forces in these external events that explain 'why' a particular antecedent-consequent sequence occurs as it does—and these mediating forces are

typically not readily observable" (23). While subsequent research has shown that this hypothesized cognitive distinction between human primates and nonhuman primates is not so clear-cut (see Tomasello 2008, and references therein) and that, indeed, the key difference between human and nonhuman primates may be their respective abilities to share intentionality rather than understand intentionality, it is still a useful distinction. Phrased in terms of mediating propensities, and in a more tempered fashion (say, as poles of continuum, rather than positions in an opposition): human primates (in contrast to nonhuman primates) are incredibly good at understanding the mediating relations between antecedent events and consequent events (even if they are all too prone to overproject).

As a mathematical analogy, imagine being given a set of numerical correlations: 1 and 1, 2 and 4, 3 and 9, 4 and 16, and so forth. Someone who is not mathematically inclined may remember the set of individual pairings and, hence, come to expect that 1 goes with 1, 4 goes with 2, 9 goes with 3, and so forth. Whereas a mathematically inclined person (who can infer a mediating function, $y = x^2$, from the set of pairings) will be able to predict pairings she has never seen: 25 and 5, 36 and 6, and so forth. In short, as the nonmathematically inclined are to the mathematically inclined in the realm of variables and mappings, "secondness-inferring" agents are to "thirdness-inferring" agents in the realm of sign-events and mediating propensities. Indeed, one suspects that there are differences between individuals as to degree, not just differences across species as to kind. For example, in the realm of mathematics and physical causes, we have our Newtons, and in the realm of intentionality and psychological motivations, we have our Nietzsches.

Finally, note that such mediating variables look quite a lot like envorganisms from a particular framing. For example, by knowing something about the relation between the features of objects and the interests of agents, qua mediating variable, we can infer instigations from sensations, or fruits from roots (and vice versa). In this way, we return to the concerns of chapter 2, now seen from the standpoint of the analyst who postulates, or frames, an envorganism, qua features of an environment and interests of an agent, to make sense of some process, qua transformation of signs to interpretants, or sensations to instigations.

5. Intentionality and Emblemeticity

The last section focused on the inferential and indexical nature of "mind-reading," reframed as the interpretation of signs: when we semiotically attend to the semiotic attention of others. This section continues that discussion, focusing on relatively emblematic indices of intentionality, or relatively public and unambiguous signs of mental states and, hence, some of the signs that most transparently enable shared intentionality. It foregrounds the highly unstable nature of such indices, inso-far as they are prone to parasitic processes. And it foregrounds the ways features of such indices may be projected onto the objects they stand for, and thus the ways actors

and analysts alike may ontologize mental states in terms of the (putative) properties of speech acts.

SOME CONDITIONS AND CONSEQUENCES OF EMBLEMETICITY

When theorizing kinds in chapter 3, it was noted that many different signs may index the same kind, and the same sign may index many different kinds. Such a claim is also true for mental states: there is usually no isomorphic mapping between the domain of potential indices and the domain of putative mental states, and thus nothing like a "code" that would unambiguously and intersubjectively pair such signs with such objects or such indices with such kinds. In the case of social statuses, we noted the exception of emblematic roles, or signs, such as uniforms, that provide relatively good evidence for the status in question—epistemically, deontically, relationally, and phenomenologically. And, as we saw, such a claim is also true for mental states. For example, with many caveats, speech acts are one of the ways we may "wear our hearts on our sleeves."[25]

More generally, any antecedent event or consequent event (as defined in the last section) may constitute a relatively emblematic index if it provides relatively good grounds for inferring (or ascribing) the mediating propensity (qua mental state) in question. Again, this is a graded question and can be answered only by reference to the range of possible mental states, as well as the range of possible antecedent and consequent events, that exist for a given semiotic agent or community with a particular ontology given a particular framing. In particular, given the assumptions of such an interpreting agent in such a significant environment, one may ask whether a given event relates to a given mental state in ways that are relatively deontic (permitted and obligatory), epistemic (necessary and sufficient), relational (intersubjectively recognized, or easy to commit to), and phenomenological (maximally public). Recall Table 3.6. Everything else being equal (in particular, setting aside questions of feigning and masking, and semiotic parasitism more generally), the more such an index partakes of such modalities, the more emblematic it is. Again, what is so crucial about emblemeticity is that the interpretive process in question is *relatively* deductive, normative, public, or mutually known (and may thereby help constitute a mode of intentionality that is shared).

As a function of this, such relatively emblematic indices may permit one to ascribe to others the mental state in question. Indeed, the ascribing-via-inferring of mental states may become not just normatively permitted, but normatively obligatory. That is, just as one can be held accountable for not recognizing that someone is a police officer (when they are wearing a uniform or displaying a badge), one can be held accountable (normatively, if not legally) for not recognizing the relatively easily inferred mental states of others. *How could you not have known what I was intending to do?! You must have known I wanted that!* (Such failures-to-infer may themselves constitute indices of the interpreting agent's mental states, and thus be themselves subject to inference-drawing, sanctioning, and so forth.)

Crucially, as was discussed in chapter 4, except in relatively denuded, exotic, or high-stakes contexts (e.g., cross-cultural contact, courtrooms, and so forth), such issues may often be moot for the simple reason that context is so rich that there are many criss-crossing signs of the mental state in question (or nobody needs to make reference to the mental states of others in the first place). While no one of these indexical signs may be emblematic in itself, the ensemble of them acting in concert makes any inference as to the mental state (purpose, status, or value) of others quite robust. Moreover, as mentioned above, it may also simply be the case that much of our comportment in the world does not require explicit reference to the mental states of others: we do just fine by signifying and interpreting objects such as purchases, functions, purposes, statuses, and values. Finally, given the embeddedness of meaning, it is tempting to argue that mental states may just as easily be "perceived" as "inferred." That is, just as one may often more or less directly "see" the purchases provided by one's material environment, one may often more or less directly "see" the mental states of one's social environment.

Indeed, most modes of residence in the world (qua heeding affordances, wielding instruments, undertaking actions, inhabiting roles, and fulfilling identities) may indexically reveal not only the actor's representations of the world, but also the actor's representations of others' representations of the world (including their representations of the actor's representations, and so on and so forth). In this way, *not only do modes of residence in the world constitute the key states of affairs that mental states and speech acts represent, they also, concomitantly, provide the richest indices of intentionality (qua evidence of the representations themselves)*. For example, any mode of comportment (i.e., heeding an affordance, wielding an instrument, undertaking an action, performing a role, or filling an identity) may follow from a mental state as a consequent event, or lead to a mental state as an antecedent sign event and, hence, constitute an index of intentionality. Modes of residence in the world are thus precisely the roots and fruits of mental states—not only in terms of having intentionality, but also in terms of understanding and sharing intentionality.

INTENTIONALITY AND PERFORMATIVITY

These important caveats aside, it is worthwhile enumerating some relatively emblematic signs (in particular speech acts, and mental-state predicates more generally) and some general features that make certain signs more emblematic than others. In particular, explicit performatives (such as *I promise to slay the dragon*) and primary performatives (such as *I'll slay the dragon*) are obvious candidates for emblemeticity in that they often make relatively public and unambiguous both the illocutionary force (*promise*, *will*) and the propositional content (*slay the dragon*) of the representation in question. Not only are such speech acts relatively emblematic indices of illocutionary force, they are often relatively emblematic of psychological modes. As Austin (2003 [1955]) argued, for example, one cannot (felicitously) say, I promise to go (but do not intend to), and one cannot (felicitously) say, *it's raining (but I don't*

believe it). That is, speech acts often *imply* mental states, and may thereby constitute their fruits (semiotically speaking). More transparently, as Austin also argued, many speech acts *entail* mental states, and thereby constitute their roots: for example, being told that it is raining usually counts as a good reason to believe that it is raining, and being ordered to slay the dragon usually counts as a good reason to intend to slay the dragon. (In Austin's formulation, assuming such speech act are felicitous, claims ascribing such mental states to the participants should be true.) In short, speech acts may emblematically imply, entail, and presuppose mental states as much as social statuses.

Their emblemeticity aside, such constructions are subject to parasitic processes such as etiolation and detachment (as Austin noted, and Goffman developed at length). That is, the same form may be used outside of its conventional context for reasons such as irony, theater, lying, exaggeration, and so forth. In particular, while maximally public and minimally ambiguous, such signs are also maximally feignable and maskable, detachable, and embeddable. Indeed, one may wonder whether such constructions are ever used in their conventional, nondetached sense. Aside, then, from courtroom contexts and so forth, it may be that the primary usage of such relatively explicit performatives is in regimenting and communicating (not to mention misrepresenting and mismanaging) the functionality of those semiotic processes that constitute more quotidian modes of interaction. Phrased another way, it might be argued that Goffman's key insight, vis-à-vis Austin (and Veblen), is that *it is etiolation all the way down*. That is, semiotic processes and semiotic agents are inherently parasitic, and unstably so—a point we will return to below.

OSTENSIVE INTENTIONALITY: FROM SYMBOL TO GESTURE

Another closely related kind of emblemeticity is ostensive rather than explicit, gestural rather than symbolic, displayed rather than described. In particular, actually undertaking a controlled behavior is usually a relatively emblematic sign of having the intention in question. And actually observing a state of affairs is usually a relatively emblematic sign of having the perception in question. Compare acting and observing with asserting, which is itself a relatively emblematic sign of having the belief in question. In particular, note that the first two kinds of signs—being perceived to act and being perceived to observe—are relatively ostensive, or gestural. Whereas the last kind of sign is relatively explicit, or symbolic, as to the propositional contents of the mental state in question. In all three cases, as noted above (and see Brandom 1994), such behaviors may more or less license others, normatively speaking, to attribute to the actor the mental states in question, and thereby sanction, and draw inferences from, their behavior accordingly (depending on whether it is coherent or not in such a context). Thus, while observing and acting may not be phenomenologically emblematic signs of perceptions and intentions (qua minimally ambiguous), they are often relatively deontically and relationally emblematic. Crucially, in cases of inferential communication of the stereotypic Gricean kind,

perception and intention prototypically come together: when I point or pantomime, we each perceive that we both perceive my communicative intention.

THE ONTOLOGY AND EPISTEMOLOGY OF INTENTIONALITY

Closely related to speech act verbs (and performative utterances more generally) are mental state predicates (and ascriptions of intentionality more generally). For example, in many languages there exist words such as *believe*, *desire*, *intend*, *want*, *remember*, and so forth. As with speech act verbs, constructions involving such predicates may be used to make relatively explicit and unambiguous both the psychological mode and the propositional content of a private representation. *I believe that it is raining*. *I intend to slay the dragon*. *I remember when the circus came to town*. Concomitantly, they allow speakers to separate and interrelate three kinds of events: the representational event (say, the event of desiring, believing, or feeling), the represented event (say, the event desired, believed, or felt), and the speech event (which itself provides the meta-representation of the representational event and the represented event). Finally, such predicates may be used to ascribe mental states to others (for example, *John believes that it is raining*) and predicate properties of mental states (for example, *belief is a weak form of knowledge*).

Such constructions, and the lexical and grammatical mediation of mind more generally, as well as the discursive unfolding of such forms of mediation in real-time interaction, deserve a monograph of their own (Kockelman 2010a). For present purposes, it will suffice to highlight several important processes that such constructions evince and enable that are relatively community specific and historically contingent. In particular, rather than thinking about "theory of mind" and "ethnopsychology," we might focus on the relatively group-specific and relatively species-general ways that intentionality is entangled in local ontologies and epistemologies.

First, from the perspective of language structure, it may be argued that the lexical and grammatical categories involved in such constructions may be cross-linguistically organized and scaled as a function of the ontological distance between the speech event, the representational event, and the represented event. By ontological distance is meant the ways in which one of these events is logically (inferentially) or causally (indexically) implicated in the others. For example, the ways in which an event of desiring is causal of the event desired or an event of feeling is causal of the public expression of that feeling. In particular, such distance may be gauged with relations such as semantic scope (between an operator and a predicate), morphosyntactic tightness (between a predicate and its complement), and pragmatic displacement (between a speech event and a narrated event). And such distance may also be tracked by the speaker's tacit and explicit notions of logic and causality (as evinced in the types of implicatures they make and the types of meta-linguistic practices they engage in). By organized and scaled is meant the kinds of private representations there are (as locally construed), the relations such representations have to each other (via implicit taxonomies and partonomies), and

their causal and logical connections to public behaviors. For example, this allows one to carefully describe the contours of different modalities of belief (such as doubt and knowledge), desire (such as love and lust), and feeling (such as anger and fear) as well as their relations to words and deeds. In short, through such processes, mental states (which otherwise seem to be the most "subjective" of processes) get construed as relatively "objective" and "eventive." Here is where intentionality gets most transparently caught up in local ontologies.

And second, in the course of acquiring propositional content through the lexical predicates that refer to them, mental states may become the object of empirical investigations, theoretical representations, and practical interventions. In particular, *theoretical representations* of mental states may be understood as assertions (or beliefs) that either represent people as having certain mental states or represent mental state as having certain properties. Such theoretical representations can stand as reasons and in need of reasons. *Empirical investigations* of mental states may be understood as observations (or perceptions) of the mental states of people or the properties of mental states. These can stand as reasons for theoretical representations, and these are indexically caused by states of affairs. And *practical interventions* of mental states may be understood as actions (or intentions) that are directed toward affecting the mental states of people or the properties of mental states. These can stand in need of reasons, and these are indexically causal of states of affairs. For example, the following kinds of questions become salient: normatively speaking (given a frame-of-life that resides in and represents the world in particular ways), what observations or assertions would entitle or commit one to predicate property X of mental state Y, or predicate mental state W of person Z. And if one predicates property X of mental state Y, or predicates mental state W of person Z, what assertions or actions does this entitle or commit one to? In short, by taking the analysis of inferential and indexical roots and fruits put forth in section 2, and reflexively turning it back on itself at the level of propositional mode rather than propositional content, we see how intentionality gets caught up in *epistemology*.[26] Here we return to the issues raised at the end of chapter 3, regarding knowledge about and power over semiotic processes (and various kinds of ontological transformativity), where the semiotic processes in question turn on private representations of the stereotypic sort. In particular, here is where more quotidian modes of transformativity (chapter 3) may get made more or less normative (and often explicit) via their institutionalization in an epistemic formation.

EMBLEMETICITY, AGENCY, AND MACHIAVELLI

This section has focused on relatively emblematic indices of intentionality. While any behavior may function as an index of intentionality, only some behaviors are caught up in epistemic, deontic, relational, and phenomenological modes of emblemeticity. Such relatively emblematic signs are useful to consider because they exhibit a range of dimensions along which less emblematic signs may be contrasted

and compared. In particular, for any index of intentionality, we may ask the following kinds of questions. Is the sign a root (qua cause) or fruit (qua effect) of the mental state (qua mediating propensity or kind) in question? Does the sign indicate the mode, content, or mode and content of the mental state? Is the sign relatively propositional (and, hence, more or less inferentially articulated and linguistically mediated) or relatively nonpropositional? If the sign is propositional, is it relatively lexical (open) or grammatical (closed), mediated by content or structure (as per the terms in section 3)? And finally, is the sign relatively symbolic-indexical (or "arbitrary") or relatively indexical-iconic (or "motivated"), relatively mediated by causes or norms?

Crucially, such distinctions not only map onto the relative emblemeticity of the sign in question, they also map onto the degree of practical agency one has over such semiotic processes: the capacity to control the expression of the index of intentionality in space and time, the capacity to compose what index is expressed, or what mental state it stands for, and the capacity to commit to, or internalize, another's interpretant of this index-intention relation (e.g., what another will do regarding, or believe about, one's mental state). And they probably map onto the degree of theoretical agency one has over such semiotic processes: the capacity to thematize them, characterize them, and reason with these theme-character relations. In this way, one may make more or less explicit one's representations, as well as the reasoning processes they are caught up in, and thus more or less reflexively attend to the ways they are grounded in and transforming of one's ontology.

Somewhat ironically, this fact may lead to unstable feedback loops. For example, the more emblematic the sign, the more agency one has over its expression (control, compose, commit; thematize, characterize, reason); the more agency one has over its expression, the more dissembling becomes an option (stylizing, feigning, masking, etc.); and the more dissembling becomes an option, the less emblematic the sign. Indices of intentionality, at least for semiotic agents with self-reflexive capacities, will always be subject to, if not constituted by, etiolation and parasitism.

Such dynamic tensions have repercussions for developmental processes occurring on phylogenetic, historical, biographical, and interactional time scales. Indeed, they are arguably at the heart of selectional (and sieving) processes, constituting both the roots and the fruits of more and more complex modes of sociogenesis, semiocognitive capacity, and semiotic structure. While related claims are legion in the social sciences (Byrne and Whiten 1988; Darwin 1965 [1872]; de Waal 2000; Veblen 1971 [1899]; Goffman 1959; Frank 1988; *inter alia*), they have not been sufficiently theorized from the standpoint of semiosis, agency, and emblemeticity. We will return to them in the next chapter when we theorize selfhood, affect, and value.

6

Selfhood, Affect, and Value

1. I Err, Therefore I Am

The self may be understood in many different ways. As an ensemble of social relations and as a site of social relatedness. As a mutually implicated set of skills, tools, goals, and roles, and as that to which such a set is assigned. As possessions, and as possessor. As the site in which rights and responsibilities adhere, and as where discipline and punishment is applicable. As that which knits together intention, action, realization, and responsibility, and as that which unravels in the face of experience, desire, satiation, and guilt. As auto-aestheticizing, or able to give its own existence a coherent frame, and as error-induced, grounded in parapraxis rather than praxis, or *fallor ergo sum* rather than *cogito ergo sum*. As auto-nomic, or self-sufficient, self-grounding, and autonomous, and as auto-gnomic, or daemon, Id, onion-skin, mask, and cipher. As auto-thematic, or both figure and ground of reference, speaker and figure linked by the pronoun "I," and as auto-tarchic, or continuous in time, cohesive in space, center of initiative, and recipient of impressions. As a relatively reflexive center of enclosure and disclosure, and thus as self-enclosing and self-disclosing. As ontologizing and ontologized. As autotechnic, or using itself as means, and as autotelic, or having itself as ends. As the embodiment of *zoe*, or bare life shared by all living things, and as the personification of *bios*, or the "good life," characteristic only of human beings. As life-frame and frame-of-life. As self-reflexive, or caring for itself, and as self-reflective, or knowing itself. As that which orientates to value, both measuring and measured, and as that which is beyond measure and incommensurable. As a soul, plus or minus the stakes, and as that for the sake of which one would go to the stake. As uniquely identifiable across all possible worlds (here, there, and in the hereafter), and as utterly undefinable through any finite combination of words.

This chapter takes up this cluster of concerns in terms of the categories developed in the preceding chapters. More specifically, in contrast to chapters 4 and 5, with their focus on subjectivity (and the kinds of residential and representational modes of [in] coherence that constitute it), this chapter moves to selfhood (and the kinds of reflexivity and reflectivity that characterize it). In contrast to chapter

5, with its focus on relatively cognitive representations, this chapter builds on the foregoing understanding of selfhood to theorize affective unfoldings in relation to care and accountability. In contrast to the way the term *kind* was used in chapters 1 and 3 (qua projected propensity to be entangled in particular semiotic processes, such as mental states, social statuses, and material substances), here we return to the way the term *identity* was used in chapter 4 (qua meta-propensity, or relatively coherent ensemble of such more basic kinds). In contrast to chapter 2, where we focused on selection and significance in a very wide sense, here we focus on a key human-specific mode of selection sometimes referred to as "choice." And, in comparison to the first four chapters of this book, with their focus on meaning in the widest sense (qua relations between relations), this chapter turns to value, as a particular kind of meaning that is central to human-specific forms of selection and significance and which may be understood as organizing the various kinds that constitute the identity of some particular self. Finally, and perhaps most generally, we return to the entities (agents, persons, subjects, selves) that, while seeming to stand at the center of semiotic processes, are only revealed by and created through those semiotic processes.

Before we begin, a word of warning. While I here foreground selves as a particular sort of meta-kind, the kinds that constitute it can be framed and ontologized in a wide variety of ways depending on the semiotic agent or community in question. In particular, different agents (may be ontologized to) have: (1) different kinds of mental states, social statuses, and material substances; (2) different assumptions about the nature (or culture) of such kinds; and (3) different kinds per se. I foreground three sorts of kinds in this chapter and book (mental states, social statuses, and material substances), in part, because they are fundamental constituents of my own culture's ontology (though different subcultures (say, psychologists versus anthropologists, experts versus lay folks, "reductionists" versus "expansionists," etc.) may ontologize them in different ways), and, in part, because together, as relatively complementary kinds, they highlight some of the key features that any analytically robust meta-ontology has to deal with (if it is to understand local ontologies, including itself). And thus, in what follows, all the warnings from chapter 1 should be understood as ever-present.

2. From Subjectivity to Selfhood

William James offered a theory of the self that was as succinct and powerful as it was colorful and culture-bound: "*In its widest possible sense… a man's Me is the sum total of all that he* CAN *call his*, not only his body and his psychic powers, but his clothes and his house, his wife and children, his ancestors and friends, his reputation and works, his lands and horses, and yacht and bank-account. All these things give him the same emotions. If they wax and prosper, he feels triumphant; if they dwindle and die away, he feels cast down—not necessarily in the same degree for each

thing, but in much the same way for all" (1985 [1892]:44). More carefully stated, and setting aside the obvious criticisms, the self for James consisted of an ensemble of constituents: not only body, mind, and soul, but also kith and kin, reputation and works, habits and appetites, properties and identities. And such constituents, which were otherwise a relatively heterogeneous lot, were similar not only with regard to the emotions they aroused (in one) and the actions they prompted (from one), but also with regard to the ways they were recognized as belonging (to one). In some sense, then, James's theory of the self turned on an ensemble of constituents that was itself both indexed by and constituted through three modes of reflexivity: emotion, action, and belonging. In what follows, we use his conception of the self as a building block for a more elaborate theory of selfhood, one that is powerful enough to handle not only the human-specific processes that James focused on, but also the agentive processes that all life forms exhibit (almost by definition).

SELFHOOD AS ENSEMBLE OF REFLEXIVELY COHERENT SEMIOTIC PROCESSES

While James defined the self as the sum total of all that one may call one's own, we will define it as an ensemble of reflexively coherent semiotic processes, a definition that needs to be unpacked. As for the constituents of such an ensemble, the semiotic processes in question may involve modes of residence in the world (such as affordances, instruments, actions, roles, identities) as much as representations of the world (such as mental states and speech acts, or cognitive processes and communicative practices more generally). Or, phrased in terms of semiotic ontologies, the constituents in question may involve any sort of kind (qua projected propensity to exhibit particular patterns), any index of such a kind, and any interpretant of such an index-kind relation. In this way, we can sometimes describe the self, in a kind of shorthand, as consisting of a relatively individuated ensemble of social statuses, mental states, and material substances. (Or, somewhat less reified, as an ensemble of social relations, semiocognitive representations, and material processes.) Note, then, that just as such semiotic processes are as embodied and embedded as they are articulated and enminded, so are selves. Just as such semiotic processes consist of temporally unfolding signs, objects, and interpretants, so do selves. And just as such semiotic processes may be distributed across signers, objecters, and interpreters, so may selves. In this way, selves inherit many of the properties of semiotic processes, as detailed in preceding chapters, for the simple reason that they are themselves constituted by semiotic processes.

The modes of coherence (and potential incoherence) in question are, in part, those enumerated in the last two chapters: incorporation, complementation, and creation; causality and rationality, intersubjectivity and intrasubjectivity; and so forth. This means that the constituents of the self-as-ensemble, as semiotic processes, get their meaning only in terms of other such constituents via semiotically mediated and frame-dependent relations such as part-to-whole, figure-to-ground, and cause-to-effect. The self-as-ensemble, then, is self-contextualizing. Indeed, one

sense of the self is that which may be framed as ground, whole, and cause for the semiotic processes that constitute it, which may themselves be reciprocally framed as figures, parts, and effects (and vice verse). That is, depending on the frame in question, the semiotic processes that belong to the self-as-ensemble enclose that self as much as disclose it, reify it as much as reveal it. The self-as-ensemble, then, is also self-framing and, more generally, self-ontologizing.

Aside from these more quotidian modes of coherence, the modes of coherence (and potential incoherence) essential to selfhood are inherently reflexive in the three ways James described. For example, as for reflexive action, one's behavior is oriented toward the care of such constituents (one acts both for them and with them, such that one's actions are both autotelic and autotechnic). As for reflexive emotion, one's moods are reflective of the state or condition of such constituents (their flourishing or foundering registers on one as positive and negative affect). And as for reflexive belonging, one is held responsible for the effects of such constituents (they belong to one in ways that may be both normatively and causally, or "naturally" and "culturally," regimented). In all of these ways, then, a subject (or semiotic agent) relates to an object (or semiotic process) that is just the subject at one degree of remove. Indeed, it is this very reflexivity that constitutes the self-as-ensemble in the first place: in one sense, reflexive coherence is a definition of selfhood, and, in another sense, it is a diagnostic of selfhood. And it is this very reflexivity that, relatively speaking, separates out certain bundles of semiotic processes from others, and thereby separates out selves from alters (qua other selves) as well as selves and alters from others (qua non-selves).[1] In short, reflexive coherence is the relatively emblematic meta-index of selfhood as a meta-kind.

That said, it may be argued that James focused on action and emotion because, stereotypically, the former has a kind of mind to world direction of fit (we assimilate the world to ourselves), and the latter has a kind of world to mind direction of fit (we accommodate ourselves to the world). For our purposes, rather than focus on actions prompted and emotions aroused, we may focus on signs (that lead to interpretants) and interpretants (that follow from signs). That is, one and the same semiotic process may be framed protentively (with an eye toward its effects) and retentively (with an eye toward its causes). While these may sometimes be framed in a folk-psychological idiom as action and emotion, respectively, the processes involved are much broader and must be understood semiotically. In particular, *our signs, objects, and interpretants are oriented, however tangentially, toward caring for the constituents of the self-as-ensemble; and our signs, objects, and interpretants are part of the self-as-ensemble, however peripherally, and so are cared for*.

The third mode of reflexivity, belonging, is different in kind from the other two; indeed, it may be the definitional criterion for James. However, while James phrased it in terms of possession or belonging (whatever one can call one's own), our focus is on accountability (as laid out in chapters 2 and 3). In particular, one is held accountable, as regimented by causes as much as by norms, for the semiotic processes that constitute one's self-as-ensemble. For example, depending on

the causes and effects of one's semiotic processes (however distal, sundry, or unexpected), and the ways these lead other organisms, qua alters, to judge one as good or bad, or actual environments, qua others, to determine whether one is fit or unfit, one may be subject to praise and blame as much as pleasure and pain—and thus to cultural sanctioning as much as natural selection, *inter alia*. In some sense, what matters is that the semiotic processes in question flourish or founder together: any, and all, may be held accountable for the effects of any and all. *It is this very accountability that defines the contents and delimits the contours of the self-as-ensemble, as that which is reflexively cared for.*[2] *And it is this very accountability that shapes one's protentive and retentive semiotic processes, insofar as they are reflexive modes of care (as well as constituents to be cared for)*.

Note, then, how reflexive coherence (qua assimilation, accommodation, and accountability) looks a lot like regimentation as defined in chapter 3. Taking into account both causes and norms (as well as the limits of this dichotomy), we asked what are appropriate and feasible modes of assimilation (qua signs, or protentive semiotic processes) and what are effective and efficacious modes of accommodation (qua interpretants, or retentive semiotic processes). Every signifying and interpreting agent, qua self, was simultaneously regimented by and, hence, accountable for both kinds of processes at once. Indeed, the organism was, in part, defined by its very internalization of, or orientation to, such modes of regimentation and, hence, the ways it is accountable for its own semiotic processes, and to itself as a semiotic process, on time scales that may be interactional or biographical as much as historical or evolutionary.

It should be emphasized that the self-as-ensemble is thereby defined in terms of three relatively distinct modes of reflexivity, and that, with certain caveats, such reflexive relations hold for nonhuman life forms as well. Moreover, the relative coherence, continuity, or boundedness of the self turns simply on the relative coherence, continuity, and boundedness of such an ensemble. While key characters in the history of literature, key identities in the ethnographic record, and key moments in the life course of any individual may diverge from one or more of these dimensions, while the actual constituents in the ensemble may be community-specific (as well as person-specific and species-specific), and while the individual in question may be a corporate (and, indeed, incorporeal) entity, the dimensions per se seem relatively robust (Kockelman 2011a). Finally, as is the case with modes of residence in and representations of the world, incoherence is as important and generative as coherence, just as failure is as important and generative as function, and parasites are as important and generative as purposes. Indeed, its ever-present possibility, and frequent actualization, is a defining characteristic of subjectivity: *we (in)cohere, therefore we are*.[3]

SELFHOOD AS REFLECTIVITY: POWER AND KNOWLEDGE OVER ONESELF AND OTHERS

Such reflexive relations are *not* the same as the reflective relations that theories of the self usually foreground, qua self-consciousness and self-control. While such

relatively human-specific reflective relations are, to be sure, important, they are overemphasized in the literature in the guise of techniques of the self, performances of the self, narratives of the self, symbols of the self, and so forth. Indeed, it may be argued that such reflective modes of selfhood presuppose the reflexive modes of selfhood theorized above—qua assimilation, accommodation, and accountability. In particular, for all the things one could be conscious of, or have control over, only some belong to the ensemble that constitutes the one who is conscious or has control. And, aside from the various modes of reflectivity per se (and their criterial significance for the constitution of human-specific modes of selfhood), it is really the fact that such things belong to the reflexive ensemble that gives them their importance in the first place (such that reflecting on them, or failing to reflect on them, is so fraught). In this way, most analyses of various forms of reflectivity presume, or elide altogether, reflexivity (and the kinds of (in)coherence it turns on), and thereby fail to account for the ensemble's local contours (which may be community-specific and species-specific as much as self-specific, *inter alia*), as well as the conditions of possibility for, and consequences of, such contours.

For our purposes, such reflective modes of selfhood are easily theorized by crossing our theory of agency, qua flexibility and accountability, with our theory of selfhood, qua ensemble of reflexively coherent semiotic processes. In particular, the self as reflectively may be framed in terms of having practical and theoretical agency over the semiotic processes that constitute one's self-as-ensemble. As for practical agency, one is more or less able to control the signs, compose the sign-object relations, and commit to the interpretants of these sign-object relations. And, as for theoretical agency, one is more or less able to thematize such semiotic processes (or any of their components), characterize such themes, and reason about such theme-character relations. In short, if practical semiotic agency over the self-as-ensemble is a way of theorizing "self-control," theoretical semiotic agency over the self-as-ensemble is a way of theorizing "self-consciousness." In this way, all the claims made about agency in chapters 2 and 3 (such as its being multidimensional, graded, and distributed or such as its turning on properties of signs, signers, and semiotic communities) may be made about reflective selfhood, qua self-reflexive agency. For example, as with agency more generally, we can theorize some of the conditions for, and consequences of, having relatively high or low degrees of agency over any particular semiotic process, if not the entire ensemble (Kockelman 2007b).

Indeed, canonical modes of domination consist of situations in which one self-as-ensemble has practical or theoretical agency and, hence, power over, or knowledge about, the semiotic processes that constitute another self-as-ensemble—where this very linkage, ironically, often has the effect of coupling the two selves, such that they may even come to constitute a single unit of accountability, such that the difference between them, as ensembles of semiotic processes, may be elided. Phrased another way, and as a segue to the next section, we are often held accountable for semiotic processes insofar as we have practical and theoretical agency over

them, and, insofar as we are accountable for them, they come to constitute part of our self-as-ensemble. Loosely speaking, the more power I have over you, and the more knowledge I have about you, the more I am accountable for what you do; and the more accountable I am for what you do, the more I become you. Indeed, such a process can cut both ways: when I fail to have control over some part of myself or fail to be conscious of some part of myself, the more they detach themselves as an "it" (or "you") from my "I." Freud's Id, in the guise of uncontrolled and unconscious semiotic processes (such as parapraxes, neuroses, and dreams), is the quintessential *it*. This shows how reflexivity and reflectivity can be concomitant processes, each being the roots and fruits of the other, at least in human-specific forms of life.

(One often discussed mode of reflective selfhood turns on the pronoun "I." In particular, legions of scholars have been excited by the fact that this pronoun allows one to be both speaker and topic [or both ground and figure of discourse]. Unremarked upon, however, are three other fundamental modes of reflective semiosis: when the one speaking is the same as the one spoken to, or when the one spoken to is the same as the one spoken about, or when the one speaking is the same as the one spoken to and the one spoken about. [Think, for example, of Mr. Toad singing to himself about himself.] Or, framed in terms of residence in the world rather than representations of the world: when the performer is the same as the character or the performer is the same as the audience, or when the character is the same as the audience or when the performer, character, and audience are the same. [Where "is the same as" means *partially overlaps at the level of self-as-ensemble*.] Note, for example, that whenever one looks in the mirror, there are three modalities of selfhood at stake: the one who looks at the mirror, the one who looks from the mirror, and the one who looks in the mirror. In short, not only have the reflexive aspects of selfhood been elided with so much emphasis on reflective modes of selfhood, but also key modes of reflective selfhood have been elided with so much emphasis on its ego-specific centerings and its most obvious linguistic encodings. Kockelman (2010a, 2011a) details a range of other kinds of grammatical categories and discursive practices whereby both reflexive and reflective modalities of selfhood come to the fore: interjections, inalienable possessions, complement-taking predicates, verbal operators such as mood and status, and so forth.)

3. From Cognition to Affect

While the self-as-ensemble is at stake in any semiotic process, its fundamental relation to semiosis is perhaps most transparent in the context of affect, itself a particularly complicated kind of semiotic process. In particular, any *affective unfolding* involves one or more of the following kinds of components. First, following James's lead, the object in question prototypically involves a flourishing or foundering of the self-as-ensemble—however slight, incipient, or imagined. In other words, one or

more of the semiotic processes for which one is held accountable, and about which one cares, is somehow at stake. In the case of foundering, for example, part of one's self may be subject to threat or loss: one's arm is injured, one's child is hurt, one's reputation in tarnished, one's clothes are torn. Conversely, in the case of flourishing, part of one's self may be subject to growth or renewal: one's work is praised, one's crop is harvested, one's wound has healed, one's family is safe.

Indeed, if the self-as-ensemble consists of semiotic processes, and if some of these semiotic processes may be framed as kinds, then a key component of one's self is other's attitudes toward, or interpretants of, the kinds (e.g., mental states, social statuses, and material substances) that constitute one's self and, hence, their recognition of one's semiotic propensities, or "power." This means that the self-as-ensemble may flourish or founder depending on how it is interpreted by others precisely because it is, in part, constituted by the interpretants of others. And, indeed, many classic theories of the human-specific modes of selfhood, such as those offered by Hobbes (1994 [1651]) and Goffman (1959), see it as fundamentally directed towards securing (or staving off) certain forms of recognition, such as honor, face, renown, or fame. In the idiom of practical agency, insofar as we can commit to other's interpretants of our index-kind relations, we may also strive to control when and where we express our indices, and we may strive to compose (mask, play down, exaggerate, etc.) the index-kind relations themselves.

Second, such a flourishing or foundering of the self-as-ensemble, qua object, is itself mediated by signs: the self-as-ensemble has access to the vicissitudes of itself through signs of itself. The signs may be nonverbal (I can see or feel that my wound is healing) as much as verbal (I am told that my work was praised, I overhear that my reputation is tarnished). They may be abductive as much as deductive (I predict that the harvest will be good). And they may be cryptic as much as transparent and private as much as public (one's dreams may shed light on one's desires). In short, while theorists of emotion often say that an emotion involves an appraisal of a situation (Averill 1985), this may be reframed by saying that affective unfoldings involve interpretations of sign-object relations, where the object in question involves the self-as-ensemble, and where the sign may be more or less immediate or direct: from dreams and omens to images and assertions, from explicit symbols and public pronouncements to unconscious gestures and private whispers, from residence in the world to representations of the world.

To return to Hobbes and Goffman, we are constantly attending to the indices of others (and attending to the fact that others are constantly attending to our own indices) for evidence of how we are recognized: every instant of interaction is replete with relatively recognizable (and often readily defeasible or deniable) indices of recognition: traces of envy and esteem, gestures of love and hatred, symptoms of affection and contempt. Indeed, Cooley's theory of the looking-glass-self (1902) may be reframed as follows: our affective unfoldings often involve interpretants of others' signs, qua attitudes, that are themselves interpretants of our own role-status

relations (or index-kind relations more generally). Loosely speaking, when I see you, I look at you for evidence of how I am seen, and how I am seen (qua interpretant, or effect on you) is as much a part of my self-as-ensemble, and thereby subject to flourishing or foundering, as what there is to see (qua sign-object relation, as more or less caused by me).[4]

Third, this sign-object relation may then give rise to a range of interpretants, perhaps simultaneously or perhaps sequentially. To return to the Peircean typology developed in chapter 3, there are affective interpretants: relatively involuntary transformations in the state of one's body that may be felt by the one embodying them (and even perceived by others, if only indirectly). There are energetic interpretants that range from voluntary actions to involuntary behaviors, some of which may be highly communicative, if not emblematic, such as response cries and facial expressions. There are representational interpretants: signs, be they public or private, that frame such events (and their causes and effects) in terms of relatively propositional contents. And there are ultimate interpretants, or dispositional variants of any of these interpretants, qua habits or propensities to affectively, energetically, or representationally interpret in particular ways in more distal contexts.

To return to our example from chapter 3, a single gunshot heard while one is alone in the forest may serve as a sign of potential threat to the self (if not to others who are part of one's self), and this sign-object relation can give rise to a wide range of interpretants, some simultaneous, some sequential: a rush of adrenaline and the rapid beating of one's heart (and perhaps a constriction in one's throat, ever after, whenever one is alone in the woods at night), flinching or freezing as well as drawing one's weapon or running the other way (and perhaps a future habit of hiking in more public places), an utterance such as "don't shoot," or "everyone down" (and a subsequently ineradicable belief that the woods are filled with dangerous beings). Finally, as will be further developed below, it must be emphasized that in other semiotic frames all of these interpretants may also be signs (or at least more or less indexically revealed projected propensities to signify, objectify, and interpret in particular ways) that can themselves be interpreted by others—indeed, they are often bundled together as evidence for a single ascription: "Paul must be terrified of the woods."

Note, then, that most of the processes described in preceding sections also apply to affective unfoldings. For example, reframing some of the foregoing interpretants as signs, there are relatively emblematic signs of affective states—indices that make relatively public and unambiguous that one is scared (or, rather, that one is undergoing an affective unfolding that is stereotypically described as "being scared"). Thus, just as we often have emotion vocabularies (as relatively representational interpretants) that allow speakers to make explicit their own and others emotions, we also have facial expressions (as relatively energetic interpretants), which are often understood as our most transparent icons of affect. Again, such emblems may be explicit as much as ostensive. And again, such signs enclose affect as much as disclose it, reifying it as much as revealing it.

Relatedly, and as per our discussion in chapter 5, affective unfoldings can be framed as mediating propensities and, hence, can be caught up in intersubjective modes of inference and expectation via their roots and fruits. For example, from his facial expression or self-ascription, I may learn "he is angry" (or, more precisely, learn that he is in the midst of a certain kind of affective unfolding); and, having learned he is angry, I may expect him to engage in certain kinds of behavior (qua fruits) or predict that he has experienced certain kinds of events (qua fruits). In this way, I may infer that he has resided in (or represented) the world in particular ways, and that he will come to reside in (and represent) the world in particular ways.

Crucially, as interpretants, these are also potential sign-components in incipient semiotic processes and, hence, they may be sensed and interpreted by the self (as much as by others) and thereby provide grounds for more elaborate *semiotic cascades*. In this way, just as the roots of affective unfoldings may be indefinitely extended, so may the fruits. In particular, the self-as-ensemble can interpret its own signs and judge its own semiotic processes more generally—often by committing to, or "internalizing," the imagined or remembered judgments of others. Indeed, if one's self-as-ensemble consists of semiotic processes, then the very affective unfoldings it gives rise to (when it founders or flourishes) are themselves part of the self and, hence, may themselves give rise to (reflexive, or higher-order) semiotic unfoldings. For example, one can be ashamed or angry with oneself for having been angry or ashamed. In this way, our very own affective interpretations of our affective interpretations may shape our affective unfoldings.

Framed another way, note that just as a sign may be more or less transparently related to its object, an interpretant may be more or less transparently related to a sign-object relation (Kockelman 2011a). And, therefore, just as there exists a range of more or less immediate interpretants (affective, energetic, representational, ultimate), there also exists a range of more or less overt interpretants. Such relatively covert interpretants may arise for the simple reason that, as potential signs themselves, they are subject to one's own and others' subsequent interpretations (and the judgments these may entail). Freud, in a psycho-medical paradigm, Goffman, in a sociointeractional paradigm, and Foucault, in an institutional-historical paradigm, handled this in now canonical ways: there exists censoring agencies, whose presence may be internalized, that lead to the recoding and rechanneling of such potential signs—giving rise to minimizations and maskings, condensations and lies, gestures and displacements, shifts in footing and slips of the tongue. (As well as a host of hermeneutic techniques, or interpretive epistemes, for recovering the original sign-object relations—from psychoanalysis through genealogy to linguistic anthropology.) Such censoring agencies may be real or imagined, internally imposed or externally applied, consciously undertaken or unconsciously executed. And, in a Meadian idiom, they may be figured as any kind of generalized other (qua imagined intersubjective ground)—not just fathers, wardens, and dictators, but also participants of speech event, unratified bystanders, ego ideals, and evaluative standards. In short, with some caveats to be discussed below, affective unfoldings are

subject to regimentation, and thereby exhibit its consequences, like any other semiotic process.

THE ONTOLOGY AND EPISTEMOLOGY OF AFFECT

In short, affective unfoldings have been framed as semiotic processes consisting of signs, objects, and interpretants (where the latter may themselves constitute incipient signs). The key object in question concerns the self-as-ensemble. A sign can be any index, however slight, of a possible flourishing or foundering, however small, latent, or imagined, of that ensemble of semiotic processes for which the affecting self is accountable (which may include the affective unfolding itself), and the interpretants involve a palette of simultaneous and subsequent possibilities (as well as second-order attempts to rechannel or recode these, depending on their regimentation by self and others): feelings, actions, and speech acts (or discursive practices, more generally) as well as moods, habits, and mental states (or cognitive processes, more generally). In this way, part of what is so crucial about such affective unfoldings, as semiotic processes, is that they figure the boundaries and loci of selves in relation to the categories and values and, hence, the semiotic ontologies of communities. In particular, affective unfoldings emerge from semiotic ontologies (having them as some of their roots) and give rise to semiotic ontologies (having them as some of their fruits). More generally, ontology, affect, and selfhood are concomitant processes, and so attempts to understand any of them without reference to the others are doomed (Kockelman 2011a).

Note, then, that while emotion is often understood as a feeling (for example, affective interpretants in the strict sense), affective unfoldings are semiotic processes whose interpretant components may be very wide ranging. Note that no one component (of these semiotic processes) is an emotion; rather, any affective unfolding may involve all of them, with different degrees of elaboration. Note that while emotion is sometimes understood as a relatively singular event, or a relatively rare process, there is probably no interpretant that does not partake of affective unfoldings to some degree. Note that while emotions are often understood as reactions, affective unfoldings are semiotic processes and, hence, involve signs as much as interpretants. Thus, they have roots as much as fruits and, hence, are causes as much as effects. Note that while emotion is often understood as passive or uncontrolled, many of the possible interpretants within affective unfoldings may involve highly agentive processes. Note that while emotion is often understood as a relatively private or subjective process, affective unfoldings are inherently semiotic, and usually highly intersubjective (if only through the internalization of others' interpretants, through the third dimension of practical agency: commitment). And note that while emotion is often understood as a kind of mediating propensity that is relatively immediate (i.e., certain roots lead to certain fruits with minimal buffering by stereotypically cognitive processes), this may be more or less true of affective unfoldings, depending on the kind of unfolding as well as the components in question.

That said, as semiotic processes, affective unfoldings may themselves constitute the objects of other signs—in particular, relatively propositional signs that may refer to them (as objects) and ascribe them to self and others (as emotional states). For example, as was argued in chapter 5, for the case of mental states more generally, not only do we have representations such as "Paul was frightened by the sound of the gun" and "that disgusts me," but we also have representations such as "fear is an emotion" and "emotions are mental states." In this way, any component within an affective unfolding, and the entire unfolding itself, may have propositional contents conferred upon it insofar as it may itself be the object of a representational sign. Affective unfoldings are mediated by representations of the world as much as by residence in the world.

Concomitantly, such propositional contents and, hence, the referents of such representations can get caught up in all the modes of ontology and epistemology that intentionality is subject to more generally: empirical observations, theoretical representations, and practical interventions. In this realm, affective unfoldings may be subject to inculcation, extirpation, and analysis as much as medicalization, experimentation, and divination. And these propositional contents, and the inferential articulation, conceptual structuring, and metaphoric elaboration they entail, may have the effect of reifying affective unfoldings as "emotions," and thereby eliding their contextual grounding, semiotic mediation, sociohistorical elaboration, (inter)subjective coherence, personal stakes, and so forth.

To return to some of the issues discussed in chapter 5, for example, affective unfoldings are implicated in *epistemic formations*—thereby becoming the subject matter of empirical investigations (what we observe), theoretical representations (how we theorize what we observe), and practical interventions (how we act on what we observe as a function of our theories). Here is where affective unfoldings get caught up in discursive practices and disciplinary regimes that treat them as "emotions." Such practices and regimes are legion: from psychoanalysis to the DSM IV's attempts to standardize the diagnostic criteria for mental illnesses, from self-help guides to parental wisdom concerning how to soothe the feelings of a distraught child.

Indeed, our very understanding of affective unfoldings in terms of emotion, with all the logical implications this entails and all the stereotypic properties this invokes (such as being relatively uncontrolled, embodied, subjective, natural, cross-species, pan-cultural, feminine, animal-like, etc.), is in some sense the product of our own discursive regimes—be they grounded in lay or expert ontologies, be these mediated by scientific or everyday epistemologies. This is another site where affect is mediated by semiotic processes, backed by potentially powerful institutions, and borne by pervasive infrastructures that can enclose them as much as disclose them.

AFFECT AS RELATIVELY UNCONTROLLED AND UNMEDIATED SEMIOTIC PROCESSES

These caveats notwithstanding, given all the ways in which affective unfoldings are similar to other intentional processes, we may ask why emotion is so often

contrasted with cognition (in psychological theory as much as folk psychology) or why affect deserves a section all to itself (immediately after a chapter on intentionality). One reason, as argued by Griffiths (1997; and see Averill 1985), is simply that stereotypically affective semiotic processes seem to be relatively uncontrolled and unmediated in comparison to stereotypically cognitive processes (in particular, intentional acts and reasoning more generally).[5]

Or, phrased in terms of the analytic categories introduced here, the semiotic processes underlying affective unfoldings are, relatively speaking, less inferential and more indexical, less flexible and more rigid, less intersubjective and more subjective, less displaced and more context-bound, less symbolic and more gestural, and so forth.[6] It is probably for these reasons that emotions are often theorized to function as buffers, or preconscious reactions to common kinds of situations, allowing the self to protect itself without wasting precious time reasoning. And it is probably for these reasons that emotions, in the reified sense discussed above, may be so easily ontologized as natural, pre-rational, pan-cultural, and cross-species.[7] In all of these ways, then, affective unfoldings may often seem to be more like seconds than thirds.

As a function of these properties, and in terms of practical agency, the semiotic processes that constitute affective unfoldings, or at least some of their components,[8] may thus be framed as relatively difficult to control (as to when and where they are expressed), relatively difficult to compose (as to what sign is expressed and what it stands for), and relatively difficult to commit to (as to what effect the sign-object relation will have when expressed in such a time and place). Concomitantly, they may be understood as more likely to reveal an authentic self (for they are less amenable to censure). And one may be accorded less responsibility for their repercussions (as they are less likely to be "intended").[9]

Indeed, this last point may often be the central point for human-specific affective unfoldings: while these may have as their roots some flourishing or foundering of the self-as-ensemble, as that which one cares about and is accountable for, they may have as their fruits repercussions that one is not held accountable for. And it is perhaps this very invitation (or demand) to slip out of reason and responsibility—if only for a moment—that makes them such a powerful and seductive mode-of-meaning-in-the-world.

4. Maps, Terrains, and Travelers

In this section and the next we return to the promissory note that was offered in chapter 4 at the end of the section on fulfilling identities. In particular, this section unfolds the critical and conceptual implications of a particular metaphor—theorizing value in terms of the relation between maps, terrains, and travelers. As will be seen, a terrain turns on social statuses, mental states, and material substances (or, more generally, on any sort of kind that could help constitute an identity). A map figures such a terrain in terms of differentially weighted origins, paths, and destinations. And the traveler's

interpretations of such a map are equivalent to charting a course through such a terrain. In section 5, this metaphor is then used to reframe various evaluative techniques by which we weigh the relative desirability of possible paths through a given terrain—from instrumental values (turning on graded and contoured landscapes) to existential values (turning on stereotypic and prototypic paths). Broadly speaking, then, this framing of value is used to theorize the relation between selfhood, agency, and identity. And it may itself be understood as one possible way of ontologizing personhood.

Understood another way, these sections may also be understood as theorizing the temporal unfolding of selfhood. In particular, as a sign-event may be framed as establishing a *present*, with a past and future, a signer may be framed as establishing a *presence*, with a history and fate. Indeed, the life, biography, or *bios* of a signer may often be understood as the chaining together of such presences (into a finite length), which itself is located between two absences (of infinite extent). From this perspective, then, we may focus on the signer's presence as an ensemble of relatively coherent kinds (such as social statuses, mental states, and material substances), where this ensemble is simultaneously the transformative fruits of prior sign events that have led to it and the transformative roots for subsequent sign-events that will follow from it. And just as one may examine the kinds that constitute a signer's identity at any moment, one may examine its changing kinds across moments—providing each of its moments with "momentum" and, thereby, often projecting onto its multiple and fleeting presences something that is sometimes enclosed as a unified and enduring "essence." In particular, as it unfolds over time, *selfhood as temporality* may be understood as a sort of movement through an abstract space of the kinds that can constitute an identity, and thus a movement through a space of social statuses, mental states, and material substances that once belonged to the signer, now belong to the signer, and will belong to the signer. (Where such modes of belonging [units of accountability or self-as-ensembles] may be more or less recognized and regimented by self, alters, and others; where such kinds are constituted by indices, interpretations, and ontologies; where such transformations may involve all the kinds of transformativity discussed in chapter 3; and where such kinds, and ontologies more generally, are subject to all of the caveats outlined in chapter 1.[10])

TOPOGRAPHIES EMBODIED AND EMBEDDED

To understand the nature of value, one must understand the relation between maps, terrains, and travelers.[11] As used here, a *terrain* is not a physical space, but a meaningful space—one that turns on projected propensities to signify, objectify, and interpret in particular ways (or various kinds more generally). More concretely, it may often be figured as a space of social statuses, mental states, and material substances that could be inhabited, held, or incorporated: an ensemble of possible mediations between selves and others, minds and worlds, organisms and environments. A *map* is an understanding of, or set of ontological assumptions regarding, what are the places in, and paths through, such a terrain. Such assumptions may be tacit, such

as an embodied topography; they may be explicit, such as a mental map; or they may even be enclosed and objectified, such as a bound atlas. Indeed, given the ways incorporation, complementation, and creation were defined in chapter 4, maps are usually not so much embodied as embedded: *the terrain is its own best map*. And a *traveler* is some kind of self-mind-organism situated in such a terrain: someone who inhabits a set of social statuses, holds a set of mental states, and incorporates a set of material substances; someone who semiotically and socially relates as a self to others and as a mind to world and as an organism to an environment; someone who may both orient the map relative to the terrain (via the existential equivalent of a compass) and orient itself relative to the map (via the existential equivalent of a you-are-here spot). In short, the map is equivalent to a sign, the terrain is equivalent to the object stood for by that sign, and the traveler is equivalent to the one who interprets the map by moving through the terrain.

To talk about embodied and embedded topographies (not to mention mental maps and bound atlases, as their relatively explicit and enclosed equivalents) is to project certain features onto terrains. For example, if by *place* we mean a particular set of social statuses, mental states, and material substances that could more or less simultaneously constitute a self-as-ensemble (in this terrain), there are *landmarks*, or particularly salient and well-known places that other places, as positions in the terrain, are oriented relative to. Places themselves may sometimes be framed as *origins* (where one sets out from), *destinations* (where one sets out to), and *paths* (how one moves from origin to destination—usually relatively well-marked and often-trod ways of going from one place to another). In short, any place within this terrain should be understood as an ensemble of social statuses (or relations), mental states (or representations), and material substances (or processes). And any movement through this space, by moving between places *via ontological transformations*, changes one or more of one's social statuses, mental states, or material substances—and thus transforms the kinds of relations, representations, and processes that are assumed to constitute one (given a particular ontology).[12]

The terrain that such a map delimits is potentially a very complex space—having an infinite number of dimensions, including a temporal vector. For example, any person can potentially place themself in this space by reference to their current social statuses, mental states, and material substances. For example, all the social relations in which one is currently implicated: father, friend, husband, citizen, employee, university alum, first-baseman, speaker, addressee, buyer, seller, etc. All the different cognitive representations and affective unfoldings that one is currently holding or experiencing: beliefs, memories, desires, perceptions, intentions, plans, fears, shames, joys, sorrows, etc. And all the different biosemiotic and technocognitive affordances and instruments that constitute one via relations such as incorporation, creation, and complementation: body parts (big and small), cells and secretions, bones and bile, prosthetics and clothes, eyeglasses and earrings, possessions and physical position, warts and scars, exuvia and effluvia, cancers and chromosomes, etc. Not only can one locate oneself on this map (only to a certain

degree, needless to say, for self-knowledge is imperfect), but one can also potentially locate the positions of others (perhaps better than one can locate oneself). Not only can one locate one's current position, but also one can potentially remember one's past position and plan one's future position—noting the paths that links these origins and destinations. And not only can one locate oneself and others on this map (where do we stand having taken stock of ourselves, where have we stood, and where will we stand), but one can also potentially map out the general layout of the terrain itself (where could one potentially stand in such a space).

Crucially, such a map indicates preferred and dispreferred places, or worthy and unworthy positions—where this indication, as will be discussed below, is sometimes direct and sometimes indirect, sometimes transparent and sometimes opaque, sometimes concrete and sometimes metaphoric. These are the social, cognitive, and material equivalents of oases and deserts, sweet spots and dead ends. Loosely speaking, and thus framed in a way that will be partially overturned in what follows, places have something akin to primary and secondary properties: ontologies mediate not just what is the projected propensity (qua "power" or "patterning") that constitutes a particular social status, mental state, or material substance, but also whether or not one would like to inhabit such a social status, hold such a mental state, or embody such a material substance (given its propensity). For example, one does not just have a sense (in Vico's sense) of what it would be like to be a plumber or a mother, but also a sense of whether one would like to be a plumber or a mother. One does not just have a sense of what it would be like to desire men or believe in god, but also a sense of whether one would like to have such a desire or hold such a belief. And one does not just have a sense of what it would be like to be thirsty or fast, but also a sense of whether one would like to experience such a feeling or have such a trait. In other words, given a set of paths and destinations available from some particular origin, one has a sense of not only where one could go, but also whether one would like to get there. How exactly such evaluation works will be the subject of the next several sections.

VALUE IS LIFE UNDER AN INTERPRETATION

If a map delimits the relative desirability of places in, and paths through, a terrain of social relations, cognitive representations, and material processes, and if a traveler interprets the map by taking particular paths through, and occupying particular places in, the terrain, then their actual travels (including mere stasis) constitute an interpretant of the map (as a sign) insofar as it stands for the terrain (as an object). In other words, just as I know something about the question you were asked (qua sign) by your answer to it (qua interpretant), I know something about your map of a terrain by your travels through it. In short, as we saw in chapter 4, just as an intention may sometimes be understood as an "action under a description" (Anscombe 1957), we might think of value as life under an interpretation: each of our life paths may be examined as the best evidence for the values we were following (or of our own ontologies of the terrains through which we were traveling).

While there are many emblematic identities, many relatively public and unambiguous indices of one's values—from self-ascriptions such as "I am a Christian" to bodily techniques such as dietary restrictions—nothing beats life itself. In some sense, biography and ethnography are precisely attempts—however misguided, naive, or romantic—to get such a view of the entire life of another person or the entire life-world of another culture (compare Arendt 1998 [1958]). They usually strive to be our most explicit and accurate pictures of the maps travelers were following through some particular terrain. However, at least in the case of biography, such narrative-enabled meaningfulness doesn't come without its own streak of meanness: for one usually does not get enough critical distance to enclose a life until that life has come to a close.

Questions about the nature and origins of maps usually presume a community of travelers with a history, one whose members can both question and be called into question, can act or be acted on: a public or polis, culture or country, nation or ethnicity, institution or interaction. And just as an individual biography may be understood as a path through a space of social relations, cognitive representations, and material processes, so too may a collective history. In this way, not only can narratives of the self, but also national histories and chronotopes more generally give meaning to changes in (collectively imagined) social statuses, mental states, and material substances by tracking paths through this terrain or establishing a terrain for one's paths (compare Bakhtin 1981, 1990). We were tinkers and tailors, and now we are officers and gentlemen. We were slaves and now we are citizens. Once we worshiped a golden calf, now we believe in an invisible man. In having turned the other cheek, we now live hand to mouth. Once we were warriors, and now we are drunk and on the dole. Once upon a time (say, during the Pleistocene), we were nasty, brutish, and short, but now we are tall, intelligent, and charitable.

In some sense, cultural translation, or the calibration of values, is really a way of comparing the maps of any two such collectivities. In this regard, one nice feature of this metaphor is it allows us to describe different *types of incommensurability*: any two travelers (or collectivities traveling together) may have different maps, may be placed differently relative to the same map, may place the map differently relative to the same terrain, or may have different terrains to map. Indeed, a deep sense of shared identity between any individuals is the consciously contrastive commonality (recall our definition of culture from chapter 3) that comes with orienting by means of the same map, no matter how differently the two travelers are placed relative to the terrain.

In short, a map allows travelers to track their movements through such a terrain (as well as the movements of real and imaginary others): from origins along paths to destinations—winding their way through preferred and dispreferred places, or worthy and unworthy social statuses, mental states and material substances. To say a map projects a set of values, or enables evaluation, is to say that, by indicating something akin to the secondary properties of places, a map allows a traveler to weigh the relative desirability of different positions in, and paths through, the same terrain. And from an observer's perspective, biography and ethnography are often

forms of abduction or hypothesis: if the values followed were like this, then the path taken or pattern evinced would make sense.

ESSENTIAL INCOHERENCE OF MAPS

A perfectly functioning or ideal map should allow one just enough of a vantage to give a positive or negative valence to each and every change in social status, mental state, or material substance. *But nothing is ideal*. And maps are just as much incoherent as they are coherent, just as likely to malfunction as to function, just as often the victim of parasites as the champion of purposes. Indeed, just as in map-making more generally, the process leading to a map can go awry, or still be under construction. For example, blank spots may be in the map: sections of space in which places and paths, perils and succors, are not yet mapped. Inconsistencies may be in the framework: circular paths, whose destination is their origin; paths that inexplicably cross; places that are both pleasureful and painful. Obscure conventions may be used on the map: what's a worthy and unworthy place may be up for debate. The map may stand for no actual terrain, or it may be based on faulty information, or the world may have changed in important ways since the framework was made. Indeed, the map one might articulate, or make explicit, might not conform to the topology one embodies or in which one is embedded. And different people, even if often in conversation with each other, or the same person at different moments, may have contradictory maps of the same terrain.

More insidiously, the map may not be in error, but the way of orientating with it may be erroneous. Thus, one may be "lost" in many different senses: One can lose sense of what the map stands for, one can lose sense of how the map is placed (relative to the terrain), and the traveler can lose sense of where they stand (relative to the map). Indeed, there are different modes of *semiotic compensation*, or principles of explanation and justification, whenever something goes awry in these ways: We may assume that the map is incoherent; we may assume that the territory is uncharted; we may assume that the travelers are incompetent. Judging the effectiveness of any interpretation of a "great book"—say, in alchemy, law, psychoanalysis, political economy, critical theory, or religion—often turns on exactly this mode of compensation. Much of the *work of narrative*, from autobiography to national history, from editing to exegesis, is making jumps across maps continuous, filling in gaps within maps, making circuitous paths straight and, perhaps all too often, projecting *telos* onto aimlessness, function onto failure, and purpose onto parasites.

5. From Meaning to Value

Before further developing our metaphor, we need to review a few key ways of framing desire, value, preference, and choice. In particular, it is sometimes useful to distinguish between first-order desires (or "wants") and second-order desires (or

"preferences"). Desires are desires are desires: sometimes they are insanely complicated; sometimes they are brutally simple. They have already been theorized in relation to action (in the guise of pro-attitudes), selfhood (in the guise of reflexive desire), and agents (in the guise of interests, objects, significance, and selection), and so nothing more will be said about them here. Second-order desires, however, are at the heart of value. In particular, given a set of desirable things, we need a way to determine the relative desirability of any two things within the set. As used here, *values are not desires; values are a means of determining relative desirability*.[13] They might be likened to logic underlying preferences (qua mental attitudes, or kinds) or a standard underlying choices (qua observable behaviors, or indices).

For microeconomists, the preference process is often imagined to go like this.[14] Take a set of options. For example, whatever is available on the dessert menu: apple pie, ice cream, and banana pudding. Pair-wise compare all the options within the set, assigning one of three relations to each pair (more desirable, less desirable, equally desirable). For example, apple pie is more desirable than ice cream, banana pudding is less desirable than apple pie, and ice cream and banana pudding are equally desirable. Given such a set of relations, choose the most desirable option out of the set of available options. For example, "I'll have the apple pie, please." By determining relative desirability, values can establish preferences over a set, and, once such preferences are established, the highest ranked option may be chosen.

So what are some ways of weighing relative desirability, such that preferences over a set may be determined? The most famous one underlies utility functions: map a domain of options onto a range of numbers, such that preference relations may be framed in terms of relative magnitudes or ordinal rankings. For example, if one knows the calorie content of each dessert on the menu, and if one is trying to maximize the calories one consumes, one may treat the numerical relation "greater than" (>) as the preference relation "more desirable than," and so on for "less than" (<) and "equal to" (=). Thus, one finds apple pie more desirable than the other options because it has more calories than the other options (all other things being equal). Other relative magnitudes onto which preferences relations within this domain may be mapped include price, protein, chocolate to carbohydrate ratio, saturated fat, and so on.

Weber would call such utility-based evaluative techniques *instrumentally rational*.[15] For domains other than dessert menus, the instrumental values underlying preferences may be tied to price, efficiency, time, energy, volume, probability, profit, relations between these, and so forth. Crucially, a great amount of work goes into making any domain amenable to instrumentally rational values—and, indeed, into simply "making a domain." We need standardized numbers (three dozen, two giga-), standardized units (bushel, byte) and standardized substances (wheat, information). And we need a single dimension, or weighted set of dimensions, relative to which such a domain of standardized options may be mapped so that relative magnitudes along this dimension may be treated as preference relations. For

example, not only do we need to agree on what calories are, and how to measure them, but we also need to have measured how many calories each of our options has. But once we have such standards and dimensions (not to mention the institutions, infrastructure, and ontologies that back them), any set of options is easily enough managed such that an automaton can choose for us.

INSTRUMENTAL VALUES AS GRADIENTS AND CONTOURS

So how does this understanding of instrumental values relate to maps, terrains, and travelers? To say a map projects a set of values, or enables evaluation, is to say that a map allows a traveler to weigh the relative desirability of different places in, and different paths through, the same terrain (where a place, recall, may be framed as a more or less simultaneously available ensemble of social statuses, mental states, and material substances [or kinds more generally]). In particular, given an origin, which enables a set of paths to a set of destinations, a map should allow one to compare any two paths (qua means) or any two destinations (qua ends), and rate one relative to the other as more desirable, less desirable, or equally desirable.

For example, suppose a traveler is at a particular place (qua origin) within a terrain that is suitably standardized and dimensionalized. Then the relative desirability of possible destinations may be determined by a utility function: in physical space, which bar has the strongest martini, or, in social space, which trade has the highest pay. And, once the most desired destination is chosen, the relative desirability of possible paths to that destination may be determined by a utility function: in real space, which route is the fastest, or, in social space, whose apprenticeship is the shortest.[16] In other words, if the terrain to be navigated is amenable to an instrumentally rational mapping, then *the so-called secondary properties of places might be reduced to the multidimensional equivalent of gradients and contours*: any two places on the same contour are equally desirable, any place on a higher contour is more desirable, and any place on a lower contour is less desirable. Life would consist of trying to climb as high as one can (budget permitting).

While this vision of life may seem a long way from social relations and cognitive representations, it should be remembered that property rights are just a certain kind of social status. To own a use-value (say, a pair of shoes) or an exchange-value (say, $5.00) is to have rights to (and often responsibilities for) the item in question. That is, to inhabit such a property status, by having such a possession, is to have a say in (or a good deal of practical agency over) how such a use-value is used or what such an exchange-value is exchanged for. In some sense, then, whenever one is confronted with a set of options (of the instrumental kind just described—from dessert menus to mutual funds), what one is really opting for is one transformation of social statuses over another: whether to give up one's use-rights to $5.00 in exchange for use-rights to banana pudding or use-rights to apple pie. In other words, any domain of options, no matter how instrumentally rational, is actually a domain of social relations: one does not so much acquire the item of possession

itself as one acquires others' recognition of one's rights to, and responsibilities for, the object in question (Kockelman 2006a, 2007c).

Crucially, in the case of exchange-values, the rights and responsibilities in question are relatively abstract and quantified. They are abstract in the sense that my property right to an exchange-value of $5.00 may be transformed into a property right to any use-value currently on the market that has such an exchange-value. And they are quantifiable in the sense that your property right to an exchange-value of $25.00 provides you with five times the abstract right as my property right to an exchange-value of $5.00. It is precisely these properties of abstraction and quantification that allow such social relations, qua property statuses, to be treated in terms of standards and dimensions (or perhaps vice versa).

Moreover, an economic transaction is very similar in function to a performative utterance as stereotypically conceived (recall our discussion in chapter 3): the participants must already hold certain social statuses (qua property rights) for the transaction to be appropriate, and the participants must come to hold certain social statuses (qua property rights) for the transaction to be effective. One gives up (others' recognition of) one's right to $5.00 at the same time one acquires (others' recognition of) a right to banana pudding. And one does this using more or less explicit signs: from pointing to an item on a dessert menu to raising one's hand at an auction, from bringing a grocery cart up to the check-out counter to clicking on a "purchase item" icon. (Needless to say, other sorts of kinds are also being transformed in economic transactions, and often more importantly so. And the other kinds of ontological transformativity are also at play in economic transactions, and not just performativity in the stereotypic sense.)

In short, it is relatively easy to treat the circulation of use-values and exchange-values in terms of meaning, qua intersubjectively recognized transformations of kinds, and thus to frame instrumentally rational techniques of evaluation in terms of social relations and semiotic processes. Indeed, one can easily imagine a mapping—very much like a *market*—in which all the important positions in a particular terrain are reduced to, or enclosed as, property statuses: abstract and quantified rights and responsibilities to use or exchange various items of possession, with movements through the terrain being effected by economic transactions and with each item's value emblematized with that flag of flags—the price tag.

Finally, just as social relations may be instrumentally rational, so may cognitive representations: we can assess exactly how much one should desire something (usually via price) and exactly how much one should believe something (usually via probability). And the two of these together, in the sense of expected utility (a sum over the products of price and probability), allow one to make decisions. When the terrain is unknown or unstable, this may be the best way to minimize the risk of one's travels. The trouble is, as most clearly seen by Peirce, that one gets only one life to make a choice, whereas such calculations are valid only when made across an infinite number of lives, akin to an infinite number of throws of a die. In other

words, there is no better example of the *single case objection* than life itself, a die we each get to roll (or rather "role") only once.[17]

HOMO-ECONOMICUS, INSTRUMENTAL VALUES, AND THE SELF-AS-ENSEMBLE (A BRIEF ASIDE)

In short, rather than focus on the circulation of items of possession, one may focus on the transformation of statuses of possessors (Kockelman 2007c). Analogously, rather than focus on what Marx called the "social circulation of matter" (1967 [1867]:106), one may focus on the material circulation of sociality. In any case, as articulated in chapter 2, the two are intrinsically linked in Marx's general sense of value as a relation between people (i.e., statuses of possessors) mediated by a relation between things (i.e., items of possession). To focus on one or the other is essentially a question of framing.

That said, as was the case with linguistic performativity, one cannot understand economic transactions without reference to more or less intersubjectively recognized and regimenting interpretants. More generally, to understand value, one needs to take into account all the other relations between relations discussed in chapter 2, not just the kind foregrounded by Marx and Aristotle (or Veblen and Saussure). For this reason, it is worth returning to William James, who understood the self as an ensemble of all that one may (or must) call one's own. Or, as it was retheorized in section 1, the self may sometimes be framed as an ensemble of social statuses, mental states, and material substances (or kinds more generally), the indices that evince them (which include items of possession), and the interpretants (by selves, others, and alters) that recognize and regiment them. Crucially, such an ensemble of semiotic processes is more or less reflexively coherent: just as desires are directed toward expanding the self and staving off its contraction (or, more generally, caring for the ensemble's constituents), affective unfoldings are the embodied register of this expansion and contraction (or, more generally, key indices of the vicissitudes of care). In this expanded sense, then, value turns on securing the recognizing and regimenting interpretants of temporally, spatially, and socially distal alters (others and selves) toward one's social statuses (mental states and material substances) as evinced in (and both caused by and causal of) one's indices.

In this way, selfhood is a ground of motivation: one acts (and thereby signifies, objectifies, and interprets) both by means of (retention) and, for the sake of (protention), securing intersubjective recognition of one's rights and responsibilities (or, more generally, projected propensities or "powers") to signify, objectify, and interpret. In short, and making no claims as to the proper unit of accountability, be it as small as the individual or as large as humanity, selfhood qua temporally unfolding intersubjectivity sometimes seems to be the original form of self-expanding value (Kockelman 2007c). Ontologized in this way, capital is akin to pure (projected) propensity, what Hobbes would have simply called "power."

From this perspective, one can see the tight connection between classic theories of economic value, such as those offered by Veblen, Malinowski, and Marx. Very roughly speaking, Veblen's focus on pecuniary emulation (and theories of distinction more generally) foregrounded signs; Marx's focus on capital foregrounded objects; and Malinowski's focus on circulation foregrounded interpretants. While all of these components are necessarily coupled (in semiotic processes constituted by relation between relations), desires are often directed at a single component: (1) gaining greater and greater propensities, (2) expressing more and more emblematic indices of propensity, (3) securing more and more widely distributed interpretants of index-propensity relations. Again, quite presciently, Hobbes's theory of power involved all three components as well as their interrelations.

FROM INSTRUMENTAL VALUES TO EXISTENTIAL VALUES

But evaluative techniques need not only or even usually be instrumentally rational (even in this last expanded sense), and so Weber theorized a wider range of evaluative techniques (1978:24–25). Some are traditionally rational: the logic underlying our preferences makes sense for us because it made sense for those who came before us. I habitually order banana pudding because my father ordered it before me. Some are *affectively rational*: our choices make sense given the fact that we were drunk or depressed, high or lonely, manic or sad, vengeful or horny, when we made them. And some are *value rational*: our understanding of the relative desirability of two options makes sense because of some aesthetic, ethical, or religious ideal. Such ideals make unconditional demands on us, and we value them for their own sake, independently of our prospects for success. Weber's description of this last type is worth quoting at length:

> Examples of pure value-rational orientation would be the actions of persons who, regardless of possible costs to themselves, act to put into practice their convictions of what seems to them to be required by duty, honor, the pursuit of beauty, a religious call, personal loyalty, or the importance of some "cause" no matter in what it consists (1978:25).

Each of these four evaluative techniques was an ideal type for Weber. Any actual decision, any interactionally or sociohistorically contextualized choice, may involve aspects of each of them. And any actual person may use all of these at different points in life, or in different domains of choice. In some sense, then, our maps are really *existentially rational*: not only allowing for a range of evaluative techniques (such as Weber's big four), but even delimiting those regions within a terrain in which one technique is more appropriate than another. For example, regions to which instrumental rationality is restricted, regions in which we should let our hearts lead us rather than our minds, and regions in which ingrained habit is the best guide. Moreover, any of the other techniques may become value-rational: we

may consciously adhere to tradition for the sake of tradition, or we may consciously pursue or follow affective experiences for their own sake. Indeed, we may even value calculation, and profit maximization, as a moral course. For example, as Weber saw it, the Protestant ethic, as a kind of value-rationality, was in part an injunction to follow an instrumental rationality: an ethical duty to increase one's capital through rational calculation. Or, to go back to Peirce, who cares what number actually comes up so long as I die knowing I made the rational choice.

As will be developed below, Weber's distinction between instrumental rationality and value-rationality is very similar to what Charles Taylor (1985, 1989) calls weak and strong evaluation. By weak evaluation, Taylor means a type of value that turns on the qualities of an action or its outcome—qualities such as efficiency and cost. And by *strong evaluation*, he means a type of value that turns on the motivation for the action or the qualities of the actor—criteria such nobility and dignity. As Taylor phrases it, modes of strong evaluation "involve discriminations of right or wrong, better or worse, higher or lower, which are not rendered valid by our own desires, inclinations, or choices, but rather stand independent of these and offer standards by which they can be judged" (ibid.:4).

Notwithstanding the range of evaluative techniques we have access to, it is only instrumental rationality that is clearly and precisely theorized. The entire discipline of economics is devoted to it, and social scientists, critical theorists, and rogue economists of all persuasions have described its excesses and limitations as well as its imaginaries and contradictions. For the purposes of this chapter, and as per the first part of this section, what is important is to show how travelers may navigate certain regions within a terrain by means of maps that turn on it. In contrast, existential value—and especially value-rationality—while often considered the essence of what it means to be human, has not received such a precise and positive formulation. While it is easy to assert how important it is, and to enumerate examples of its content, it is very difficult to give an analytically precise and empirically tractable account of its structure and function. The rest of this section focuses on this topic. In some sense, this entire chapter is devoted to its explication.

VALUE AS STEREOTYPES AND PROTOTYPES

In the domain of semantics, many linguists and psychologists long ago gave up trying to account for the meaning of words in terms of necessary and sufficient conditions.[18] Thus, while one may try to define the meaning of the word *water* as H_2O, speakers may actually represent its meaning as a stereotype, say, a colorless, tasteless liquid that is good to drink. Similarly, while we may try to define the meaning of the word *uncle* as first-generation, ascending, male collineal relative, speakers may actually represent its meaning as prototype, say, one's beloved uncle Willie. To decide whether something could be the referent of the word *water*, or someone could be the referent of the word *uncle*, we see whether it has properties that are similar to our stereotype of water or to our prototype (or "exemplar") of uncle.

(Where, crucially, none of this is possible except in the context of a larger "theory" as to the constitution of the kinds in question, or, as we would say, in the context of an *ontology*.)

Insofar as stereotypes and prototypes have many properties, and insofar as most of these properties are difficult to quantify, unitize, and standardize, the similarity metric we use to decide which of two things is more like water, or which of two people is more like an uncle, is quite unlike the utility metric we (allegedly) use to decide which of two options is more desirable. Thus, while we may be able to say whether one thing is more or less colorless or more or less tasteless than another, it is difficult to say how much more colorless or how much more tasteless it is. And while we may be able to say whether one man is more like our beloved uncle Willie than another, it is difficult to say how much more like our uncle he is.[19] Moreover, in different contexts, we may weight one property more than another in making our decision: when we have a cold, tastelessness is not as good a measure as colorlessness; when it is dark, colorlessness is not as good a measure as tastelessness; and so on. In short, if meaning turns on stereotypes and prototypes, relative similarity judgments should be qualitative (more or less, but not how much more or how much less), multidimensional (more or less colorless, more or less tasteless, more or less good to drink, etc.), contextual (under some conditions more, under other conditions less), and ontological (grounded in broader understandings of the natures, and second natures, of the kinds in question).

To get back to the concerns of this chapter, then, a key claim is this: *one determines the relative desirability of possible paths through a given terrain by comparing them to a set of stereotypic or prototypic paths*. Such paths may be long: what is the entire life-path of a righteous man. Such paths may be short: what would a righteous man do when faced with some particular decision. Such paths may be prototypic: our sense of the life-choices made by some particular, and particularly memorable, individual (with whom we "identity"). Such paths may be stereotypic: a melding together in our minds of the paths of different relatively righteous individuals. Depending on our current position (as an origin), and our current purview (as to frame or scale), we may use different stereotypes and prototypes to determine which path to take and which destination to get to.

Moreover, our stereotypes and prototypes are often grounded in decisions made in radically different terrains. For example, the world my father lived in, and thus the terrain through which he traveled, may be more or less like my own. And thus the best model for my current actions may not be how my father handled himself during the boom, but how my grandfather handled himself during the bust. That is, not only do we have to decide which of two paths is more like the stereotype or prototype, but we also have to decide which of two stereotypes or prototypes is most germane to this terrain.

To be sure, the models we use, the stereotypes and prototypes we deploy, spread, surface and stabilize via social, semiotic, and material processes, themselves turning on selection and significance as much as sieving and serendipity. Our models may be

taken from relatively widespread anecdotes, stories, novels, and movies, and they may be adopted from relatively narrow memories or personal experiences. *To study existential rationality is to study the long-durée genealogy, translation and transformation of stereotypes and prototypes over history and across a population, as much as the real-time deployment and refinement of such models by contextually situated agents making actual decisions*.[20] To study existential rationality is to study semiotic ontology.

To be sure, instrumental rationality has a very large say in enabling and constraining circulation: such models may be disclosed and enclosed: not just explicated and inculcated, but also packaged and priced. My behavior under fire is just as likely to be determined by my having heard grandpa's war stories as by my having watched *Saving Private Ryan*. In making any decision, or passing on any model, it is never entirely clear whether morality or money, custom or emotion, has the upper hand.

In sum, our map is not so much a framework as a patchwork, not instrumental but existential, not monochromatic but kaleidoscopic. Depending on the immediate terrain, our position in it, and the scope of our purview, we may use different stereotypes and prototypes to determine the relative desirability of possible paths and destinations. And in deciding which path to take (relative to a stereotype or prototype), or which stereotype or prototype to use (relative to a terrain), we make judgments that are qualitative, multidimensional, contextual, and ontological. *Finally, it is not just the case that our maps are existential rather than instrumental (the former including the latter as a special case), but that the instrumental parts are themselves grounded in stereotypes and prototypes—but now of numbers, units, and utilities (be it* three bushels of wheat *or* three euros of money*), as well as the transactional frames and equivalence scales for converting these*. In short, "values" are no less mediated by semiotic ontologies than "categories."

AGENCY AND VALUE

Within the confines of the ongoing metaphor—value as a relation between maps, terrains, and travelers—we may inquire into the relation between value and agency. As defined in chapter 3, agency itself may be broadly understood in terms of flexibility and accountability. Loosely speaking, and with many caveats, the more we have a say in what ends we vie for, and what means we vie with, the more agency we have. And, the greater our agency over an action, object, or event, the greater our accountability for that action, object, or event. The values underlying an identity are thereby important because, by guiding our actions, they enable and constrain our agency. We have so far been focused on how maps enable agency (loosely speaking, they give us a means to make choices or, more broadly, constitute one of the grounds of our practical and theoretical agency). We may now inquire into our agency over maps (loosely speaking, what choice do we have over our means of making choices or, more broadly, what agency do we have over the grounds of our agency).

To begin to answer this question, we may reframe some of the concerns of Francis Bacon (as they were introduced in chapter 3): if the task of power is to

superinduce on a given individual or collectivity a new existential mapping (or ontology more generally), the task of knowledge is to find for a given existential mapping (or ontology more generally) the source of its coming-to-be. In the limited sense in which it is being used here, then, power turns on the design and creation of a map, and knowledge turns on the explication and interpretation of a map.[21] While these are separated here, it should be emphasized that knowledge and power, as two modes of agency, go hand in hand: our ability to "gauge" our paths is concomitant with our ability to "guide" our paths.

The more power one has, in this sense, the more one is able to determine the means by which one weighs relative desirability. In certain cases, this may have minor effects: one may use either price or time for the dimension; one may use one's uncle Willie or one's aunt Mary for the prototype. In other cases, this may have major effects: one may use instrumental or existential reasoning in some region; one may use Christianity or Scientology as one's map. Indeed, once a set of maps exists—an enormous number of distinct religious texts, philosophical viewpoints, famous biographies, and historical personages (not to mention an endless number of idiosyncratic mishmashes and mash ups of stereotypes and prototypes)—we can inquire into one's agency over the map at issue. Have we accepted the first map we were offered? Do we mix and match one part of our map from this source and another from that source? Or did we invent the map wholesale?

The more knowledge one has, in this sense, the more one is able to articulate, or make public and unambiguous, the values underlying an identity. Part of the issue is to bring an embodied or embedded topography into relief, so that it may be treated as a mental map or even as a canonical text—or, at the very least, to describe one or more stereotypes and prototypes. And part of the issue is to be able to articulate where the values came from, historically, or why we should follow them, rationally. Stereotypically, this may involve disclosing values in a public setting, arguing for them, and communicating such values and arguments to others. More likely, it may involve telling stories in which models of action are animated and voiced. Such a process is not at all trivial: while such values are the ground of all interpretation, they are rarely a figure to be interpreted. Indeed, while meaning-in-the-world always already embodies, and is embedded in, such a set of values, beings in the world barely and rarely articulate them in full form: the key to our residence in the world is often difficult to represent—partially because existential values are contextual, multidimensional, qualitative, and ontological.[22]

Leading to such modes of theoretical agency may be any number of relatively parasitic processes. For example, think of the "life crises" that lead us to reevaluate our moral frameworks. Think of the "disturbances" that arise when one's framework breaks down. Think of "scientific" attempts to provide a framework: from rational-choice theory to utilitarianism. Indeed, once textualized—the semiotic objectification of a "mental map"—frameworks have an artificed quality: they can be bought, stolen, forged, translated, mass-produced, preserved, lost, stained, and so forth. Indeed, just as one can inscribe the purpose of life on a grain of rice

(e.g., "look no further"), one can get a great price on the good life. In all of these ways, existential mappings, or evaluative frameworks, may be more or less enclosed.

Finally, returning to the limit of what we can choose or articulate, there is what Taylor has called "radical choice" (1985)—the question of whether we could choose not to have any values at all, or whether we could describe the path taken by such a traveler.[23] Most attempts to do this—nihilism being the most famous example—are easily shown to be grounded in some value—and so don't really count. Indeed, Taylor has not only argued that to have contradictory or fleeting values is to have no character, he has also argued that to have no values at all is not to be human.

However, many famous figures from literature approach this limit, and this is precisely the quality that makes them compelling: Ulrich in Musil's *The Man Without Qualities,* Meursault in Camus' *The Stranger,* Bartleby in Melville's *Bartleby the Schrivener,* Michael K in Coetzee's *The Life and Times of Michael K*, and so on. Most of these characters, however, never actually choose not to have values, they were just odd, marginal, or pathological enough to have never really had values in the first place. Thus, it is not that they were so agentive that they choose not to have agency; rather, it is that they were so defective that they were never really agents originally: not really flexible, not so accountable. To take a phrase from Plato, we might characterize such a being as *tribeless, lawless, and hearthless*. To borrow a metaphor from Aristotle, such a being might be compared to *an isolated piece at draughts*.

Radical agency is therefore a limit case—the case of a being who is agentive enough to have given up its own agency. Suicide—in the sense of killing one's *bios* rather than killing one's *zoe*, or tearing away one's map and thereby rendering trackless and nontrackable a terrain—may be its only real instantiation.

MAPS ARE PATCHWORKS RATHER THAN FRAMEWORKS

While one might be tempted to think that the overarching metaphor of these last two sections is forced, inapt, or overblown, consider Dante as the topographer of heaven, purgatory, and hell—providing later generations with a physical map, or textual artifact, of where various paths through a space of mental states, social statuses, and material substances may lead. For example, where exactly is the final destination of the path taken by misers, gluttons, lovers, heroes, poets, liars, heretics, lepers, syphilitics, and politicians. To this day one could still plan one's life by following Dante's poem—though one would have to reframe its relation to modern terrains.[24]

More generally, most great works of art, philosophy, religion, law, and fiction provide such a framework. For example, one can meaningfully orient oneself in a world using Leopold Bloom's day in Dublin or de Sade's 101 Days of Sodom, Beowulf's battles or Ulysses' journeys, the autobiography of either Gandhi or Malcolm X, Saint-Exupéry's Little Prince or Machiavelli's (Big) Prince, the Tanach

or the Koran, Lincoln's speeches or Christ's sermons, *Das Kapital* or *The Wealth of Nations*, *To Kill a Mockingbird* or *Blood Meridian*.

Indeed, given the plethora of accessible texts, and given that one may just as easily embody such a text (as an ensemble of norms or propensities) as be able to articulate such a text (as a set of rules or codes), our maps are truly patchworks rather than frameworks—each swatch culled from a different source, their edges ragged, their origins now obscure. There are rips and tears, burst seams and sturdy stitches, sections still visible, and textures only palpable. For example, in Gramsci's ashes you will find his heritage and heirs at different degrees of remove—not only Machiavelli and Marx, but also Pasolini and Malcolm X, and not only Sorel and Croce, but also Williams and Negri—indeed, maybe even Paulo Freire and Saint Francis of Assisi.

And as a tree consumed by flames will leave only its roots and fruits, after we die traces of such patchworks are usually all that remains. Yet, nevertheless, in life they cling to us as comfortably and as unconsciously as a favorite shirt or suit—such a palimpsest constituting a second skin, such a seemingly personalized ontology creating our sense of self.

NOTES

Chapter 1

1 The term *infrastructure* will be used in a variety of ways, three of which may be succinctly summarized here. First, as per the sentence that called forth this footnote, it may be used in the vernacular sense as a particular kind of instrument, often spatially diffuse or distributed, that is essential to, but remains in the background of, more focal interactions and events (e.g., from highways to electrical grids, from sewage systems to the Internet, from standardized weights and measures to legal and linguistic codes). This sense of infrastructure has been the object of much sophisticated scholarship (Larkin 2008; Star 1999 ; von Schnitzler 2008; *inter alia*). Second, it may be used to refer to a wide range of semiotic processes, or modes of mediation more generally, that are a condition for (and often a consequence of) other, more stereotypic semiotic processes (such as discursive practices, economic transactions, and the like), but which are not usually understood as semiotic, or are understood to be conduits for meaning rather than sources of meaning, or conductors of agency but not agents in themselves (Elyachar 2005, 2010). While much truly outstanding work has been written on "networks," "assemblages," and related topics (Callon 1986, 2007; Latour 1988 [1984], 2007), their fundamental meaningfulness (which includes their means-ends-fulness) has not been carefully considered or has been framed in erroneous or inadequate ways (though see the important work of scholars such as Muniesa (2007) and Scott (2009) for key exceptions). And finally, most broadly, any of the kinds of relations between relations to be theorized in Chapter 2 (see Figure 2.9), however they may actually be instantiated, may count as a mode of infrastructure. In this last and most important sense, the expressions "modes of mediation," "infrastructure," and "relations between relations" have more or less identical referents (albeit different framings). While there are many other senses of infrastructure (Kockelman 2010b), some of which will be discussed in later chapters, these are enough for now.

2 Such assumptions are most transparently evinced in, and transformed by, our own assertions and others kinds of discursive practices whose propositional contents make explicit possible referents, predicates, and referent-predicate relations; and they are also evinced in, and transformed by, our ways of reasoning from one such relation to another (or our theoretical agency more generally, as will be discussed in Chapter 3). For this reason, the contents of such assertions constitute ontologies in their most stereotypic sense. But that said, this only gets at the stereotype of ontologies, as being somehow "ideational" or even "ideological," caught up in language, culture, and mind in canonical ways. Rather, as will be seen, ontologies are perhaps most often embedded in relations of *coherence* (and *noncoherence*) between already highly relational entities (such as affordances, instruments, actions, roles, and identities) insofar as these incorporate, complement, and create each other vis-à-vis processes of selection and significance (as well as sieving and serendipity). Crucially, while coherence and incoherence are relatively general concepts, they should also

be understood as incorporating, complementing, and creating (!) more narrow (and often more pointed and poignant) concepts such as alignment, allies, and alliances (not to mention enemies, enmity, and mis-alignment), as treated in, say, the work of Callon (1986) and Latour (1988 [1984]).

3 As will be shown in Chapter 3, and as should be clear to readers familiar with Peirce, such ontologies may also incorporate the following sorts of assumptions: what kinds of qualities exist, what kinds of contiguities do such qualities have with each other, and what kinds of conventions may be used to point to, and provide information about, the relations between such qualities, contiguities, and conventions.

4 Which, as will be discussed below, involves not only associating certain indices with certain individuals, but also framing the world in terms of relatively coherent bundles of "figurable" individuals and indices in the first place (two processes that are themselves mediated by ontologies, *inter alia*).

5 As used here, interpretation includes processes that range from intuition to inference, grounded in action as much as perception, relying on affect as much as cognition, and so forth. For example, it may range from relatively indirect inference (as emphasized in this example) to relatively direct perception (in a modified Gibsonian sense (1986 [1979]; and see Palmer 1999), as understood in terms of recent advances in vision science. For example, the sign may be an ensemble of qualities (qua surface layout), the object may be a purchase, and the interpretant may be an action that heeds the layout in light of the purchase it provides. Thus, as we will see in Chapter 4, the interpretants of such sign-object relations may include relatively indirect inferences as well as relatively direct perceptions, as evinced in not only heeding and wielding actions, but also the entities and events such actions might more or less immediately yield. As will be seen in later chapters, most forms of inference (like most forms of interpretation, more generally) are distributed phenomena, and thus often exist only in the relations between interacting agents.

6 Or, in hearing someone say something, I may infer that they are afraid of something and thereby expect them to undertake other actions that would be in keeping with this fear. Or, in perceiving that something ices up at a certain temperature, I may infer that it is a particular kind of substance and thereby come to expect that it will boil at a certain temperature. And so on and so forth.

7 One reason for such relative entrenchment is that transforming an assumption of level 3 has implications for assumptions at the other two levels, and not only for the individual, index, or kind in question, but also for a range of other individuals, indices, and kinds.

8 Concerning this last point, see the important essays collected in Silverstein and Urban (1996) for a careful theorization of complimentary processes as they play out in the production of ethnographic and linguistic texts. See Enfield (2009) for a key theorization of related issues as they play out in the bundling together of indices across distinct semiotic modalities, such as speech and gesture, in real-time and face-to-face interaction. And see Halliday and Hasan (1976) for classic early statements on texts and textuality, and the relation between coherence and cohesion. *Finally, and crucially, note that, as used here, the indexical (and inferential) co-presence in question is not restricted to relatively immediate or proximal relations (qua "presence" in a simplistic metaphysical sense)—all that matters is that the qualities, entities, processes, or events in question be framable as connected (causally, normatively, logically, etc.), whatever the degree of remove or kind of relationality in question*.

Such framing processes may thus be understood as linking distinct and potentially distal "texts" and "contexts" (across different points in space-time, so to speak) as much as constituting any particular "text" or "context" (at some particular point in space-time). Indeed, such processes help constitute the space-time-person manifold itself (as that relatively intersubjectively shared background relative to which entities and events are semiotically figured in the first place (Kockelman 2007c, in press))

9 And so readers of a particular persuasion are invited to describe them as necessarily fluid, emergent, contested, dialogic, relational, multiple, immanent, and so forth.

Chapter 2

1 I am, to be sure, glossing over the complexities of both thinkers. Indeed, it may be argued that Marx also had a prescient understanding of the other kinds of relations-between-relations discussed in this section (Kockelman 2006a).

2 Kockelman (2010b) serves as this chapter's evil twin—focusing on parasitism, enemies, and noise. It massively complicates the otherwise simple division made in section 9 between code and channel. It undermines the nature of "function" or "purpose." It theorizes the range of entities that prey upon the products of selection and significance. And it shows the relation between such ideas and foundational texts in computer science (in particular, Claude Shannon), linguistic anthropology (Roman Jakobson), and actor-network theory (Michel Serres).

3 This definition of agency will be expanded and transformed in later chapters.

4 Compare Dretske 1981 and Millikan 2004:31–46 and contrast Peirce 1955a (and see Colapietro 1989:6). Another widespread way to try to theorize meaning turns on signs, objects, and interpreters—and thus, from the standpoint of the framework offered here, elides sensation, instigation, and interpretants (and, more importantly, the relationality that mediates such components and the tight connection between significance and selection).

5 In Chapter 3, we will complicate, and ultimately obviate, the distinction being drawn between norm and cause—itself dependent on a particular ontology.

6 For example, Developmental Systems Theory (Oyama, Griffiths, and Gray 2003) is compatible with this approach.

7 See, for example, Cheney and Seyfarth's (1990) classic studies. And note that while other evolutionary stories may be given for such behaviors, which have been highly simplified and stylized here for the sake of explication, they will still be framed in terms of significance and selection, and, hence, the logic of this kind of account will still hold.

8 See Enfield's (2009) related notion of enchrony.

9 Or, as will be shown in Chapter 3, projected propensities to signify, objectify, and interpret in particular ways.

10 The term *mapping* is often a misnomer (as will be seen in section 4, when we discuss inferential communication).

11 The causal and logical, or indexical and inferential, nature of mental states has been fruitfully analyzed by Anscombe (1957), Brandom (1994), Davidson (1984), Grice (1989b), and Searle (1983). (And see Sperber (1996) on cognitive causal chains.) More broadly speaking, the concatenation (and ramification) of semiotic processes is a simple Peircean insight that the interpretant of one sign is usually itself a sign to be interpreted (and see the discussion of framing that, in effect, generalizes and destabilizes these sorts of issues).

12 The distinction between indexical and inferential processes is not disjunctive. All inferential processes presuppose indexical processes.

13 As will be developed in chapters 4 and 5, a belief may give rise to an intention in the context of a pro-attitude such as a personal preference, a social obligation, or a religious commitment (Davidson 1984).

14 To be sure, via the unitization of accountability (as well as framing), this "set of devices" may together constitute the same "device."

15 We are leaving aside key issues related to the intersubjective nature of such intentions (Kockelman 2005; Sperber and Wilson 1996 [1985]; Tomasello 2008; *inter alia*), which will be treated at length in Chapter 5.

16 More generally, by the *immediate object*, Peirce meant "the object as the sign itself represents it, and whose Being is thus dependent upon the representation of it in the Sign" (1998 [1906–1908]:482, cited in Colapietro 1989:15). This is to be contrasted with the *dynamic object*, which Peirce took to be "the Reality which by some means contrives to determine the Sign to its Representation" (ibid.). In some sense, immediate objects exist only by virtue of the signs that represent them (qua objects of the interpretants signs give rise to), whereas dynamic objects exist independently of the signs that stand for them (qua objects that give rise to signs).

For Peirce, every sign has both an immediate and a dynamic object. In certain cases, these immediate and dynamic objects can overlap—at least in lay understandings. For example, an interjection such as *ouch* or a facial expression of pain may be understood as determined by pain (as their dynamic objects) and as representing pain (as their immediate objects): one may know about another's pain only through their cry, yet their pain is what caused that cry. Moreover, just as the object brought to the attention of the interpreter can "exceed" the object that bought the sign into existence, so too can this existential and dynamic object exceed the attentional and immediate object. Indeed, a *symptom* (as an ideal type) might be best defined as a sign whose immediate object is identical to its dynamic object, such that such modes of excess are minimized, at least in some interpreting agent's ontology.

17 See Tomlinson 2011 for an elaboration.

18 In part, this claim is meant to analytically complement (as well as disciplinarily extend) classic reflexive stances toward (and in) the methodology of the social sciences (Weber 1949 [1904]). See, in particular, the edited collections of essays in Clifford and Marcus 1986 and Lucy 1993 in relation to cultural and linguistic anthropology, respectively.

19 And, thus, often the very "truth" of the framing of the relations so framed.

20 See Helmreich 2011 for a set of insightful comments.

21 In a cybernetic idiom, sieving and serendipity are similar to enemies (or that which intercepts) and noise (or that which interferes), and both are closely related to the notion of a parasite (Kockelman 2010b; Serres 2007 [1980]; Shannon 1949; Shannon and Weaver 1963 [1949]).

22 It may also be a sign in the Nietzschean sense—a symptom that some mode of power has been operative, perhaps by reframing the function of a form or the object of a sign. And it may also be a commodity in Marx's sense, a use-value (sign), whose value (object) is evinced in its exchange-value (interpretant).

23 Loosely speaking, for a sign "to make sense" means that an actor (or analyst) can figure out what object it is meant to have and what interpretant it might give rise to.

24 Note how this example is in keeping with Heidegger's premodern folksy imaginary, itself often as simplistic and sinister as it was naive and nostalgic.

25 More boldly state, Heidegger had no theory of meaning (though he had brilliant intuitions regarding the need for such a theory), and many scholars working in this tradition (say, folks into "dwelling," "being," "embodiment," "phenomenology," and so forth) generally inherited his lack of a theory, and so tend to just use Heidegger mumbo-jumbo, or latter-day versions of it, as a substitute for "hammering out" an actual conceptual framework.

26 Notice how much this differs from the more widespread sense of correspondence as "truth" (in the sense of an assertion, or belief, being adequate to a state of affairs), which is essentially the signifier-signified relation all over again. Also note Geertz's narrowly missed opportunity (not to mention the failure of generations of scholars—in anthropology, literature, religion, and so forth—who work under the banner of "the interpretation of culture") to theorize, much less even notice, *the interpretants in culture*.

27 It is tempting to claim that most scholars of social networks focus on relations (f)—either mathematically (and thus often without reference to the other kinds of relations) or sociologically (and thus typically taking into account only relations of type (e)). In this way, they usually leave out relations (a–d) entirely and, hence, the actual meaningful contents of the interactions between the networked envorganisms. But this is another essay.

28 Note, then, that channels may themselves be affordances and instruments, and so the network connecting envorganism is itself composed of envorganisms. Where one frames the boundary between channel and envorganism is usually grounded in a decision about the relative salience, or agency, of the units involved.

29 Kockelman (2010b) highly qualifies this simple symmetry between material translation (channel) and meaningful translation (code), and he develops its implications.

30 The term *representation* is being used here in a very wide sense to mean public and private representations of the world (qua speech acts and mental states) as well as modes of residence in the world (qua affordances, instruments, actions, roles, and identities) as well as relatively stable sign-object-interpretant relations more generally (whether these be framed as codes, contexts, or co-occurring texts). And one key reason these have the sieving and selecting effects they do is the modes of incorporation, creation, and complementation that constitute them. Chapter 6 offers an account of the role of value (and "values") in selection—qua human-specific modes of choice.

31 This claim is related to, but not the same as, an older claim: where we draw the boundary between nature and culture is itself grounded in culture—subject to various degrees of "strain" (Brandom 1979). See Chapter 3 for a longer discussion of this important point.

Chapter 3

1 My own reading of Peirce owes a great debt to Parmentier 1994 and, in particular, Colapietro 1989. Kockelman 2005 details these, and other, intellectual debts; and, in general, stays closer to Peirce's categories. Here, in contrast, I'm writing in the spirit of Peirce, rather than to the letter.

2 As we saw in Chapter 2, Saussure does theorize value as a relation between relations: the relation between any signifier and signified is mediated via its relation to the relation between (all) other signifiers and signifieds. This is a different kind of relation between relations, and one that, while crucial for defining a *semiological structure,* is not helpful for defining a *semiotic process*.

3 To talk about quali-signs with any care, it is helpful to limit the possible kinds of signs by focusing on a particular semiotic agent (or sign-type).

4 As well as the other kinds of relations between relations discussed in Chapter 2.

5 Left aside for the moment are issues concerning the cognitive structuring of concepts (and propositions more generally) as well as the deictic grounding of sentences (and words more generally).

6 For example, Peirce offered the following characterization: "That which any true proposition asserts is *real*, in the sense of being as it is regardless of what you or I may think about it. Let this proposition be a general conditional proposition as to the future, and it is a real general such as is calculated really to influence human conduct; and such the pragmaticist holds to be the rational purport of every concept" (1955:265). Bacon called the real "the true prints and signatures made upon creation" (2000 [1620]:37). And modern philosophers often understand natural kinds to be induction permitting: Properties of one member of the category, including a newly discovered property, may be reliably ascribed to other members of the category (Griffiths 1997:174; and see Kitcher 1993 and Boyd 1991).

7 Here are some other ways of imagining the distinction between seconds and thirds, or intermediaries and mediators, that come up in this book: (1) One-to-one mapping between input and output versus interpretant of sign in relation to interests of agent and features of object; (2) Path connecting origin to destination versus every point along the path itself a possible origin to another destination; (3) Conventional pairing between signifier and signified versus multiple interpretants of same sign-object relation, or multiple objects of same sign; (4) Relation between stimulus and response versus relatively imperceptible kind that mediates between wide range of possible roots and fruits.

8 And there is also a lot of thirdness in where we draw the line between firstness and secondness (and so on, iteratively and reciprocally, through the other combinations).

9 It may also be a sign of the relation between their interpretant and this sign-object relation, as well as the features of the object in relation to the interests of the agent, as well as various other assumptions.

10 Note that status-indices need not be expressed by, or exhibited on, the one whose status is in question. For example, my act of bowing before the king is, in one framing, a sign of the king's status as much as my own.

11 More generally, it may be any quali-sign that an interpreter treats as a sign of one's propensity to produce other quali-signs (or quali-interpretants).

12 Recall from Chapter 1 that an *individual* is whatever can be related to an index, such that it can be ascribed a kind (by an agent with a particular ontology). While this technical use of the term *individual* may often refer to an "individual" (qua particular human person), individuals can be groups of people as well as parts of people; they can be people as well as things; and they can be unbounded, uncountable, and ethereal kinds of things as well as bounded, countable, and concrete kinds of things. That said, the technical and lay uses of individuals often overlap in the phenomena described here: e.g., John (who is an individual in both senses) may be ascribed mental states and social statuses (as well as material substances) as a function of the indices he exhibits.

13 As we will see in Chapter 6, such projected propensities are often grounded in some relatively widespread and portable stereotype or prototype of the status in question.

14 More carefully stated, the circumstance (or sign) that would elicit the behavior (or interpretant) is relatively context-independent, such that the behavior is also

context-independent, such that the relation between the two (qua role, or index more generally) can be readily verified in any context.

15 Veblen 1971 [1899] is probably the classic post-Darwin formulation of this issue.

16 See Durkheim's (1947 [1912]) discussion of emblems, and the way they both create and clarify group sentiment.

17 Kockelman (2007b) details the relation between Goffman's notion of participant roles (in particular, animator, author, and principal) and practical agency (control, composition, commitment), arguing that the former are grounded in an overly simplistic theory of meaning. And Kockelman (2004) argues that Goffman's categories are themselves more or less equivalent to Varro's (1938 [43 B.C.]) classic decomposition of actions into three stages. Both are themselves grounded in Roman-European legal understandings of personhood, and so presuppose a very particular and problematic set of ontological assumptions.

18 Note that it is typically impossible to make such judgments absolutely; rather, questions regarding the over-ascription and under-ascription of agency are always relative. For example, I attribute more agency to him than you do, and thus I over-ascribe (in contrast to you), and you under-ascribe (in comparison to me).

19 On issues related to units of accountability on interactional time scales, see Enfield 2011.

20 While all life-forms may do this on phylogenetic time scales, as natural forms of camouflage should make clear, we are here foregrounding its human-specific forms of real-time, intentionally mediated, and interactionally unfolding modalities.

21 Note, then, that we are not foregrounding the fact that such relatively explicit speech acts seems to simultaneously describe what they do (and do it only insofar as they describe it). While many scholars have been seduced by this issue, we think it has generated far too much discussion in relation to its actual importance. We focus instead on different modes and degrees of emblemeticity, as grounding in and of particular ontologies, in relation to the transformation of intersubjectivities. The more interesting issue, as Austin noted and Michael Silverstein (1976, 1979, 1981, *inter alia*) and his students and colleagues have developed at length, is that explicit performatives can be used not only to perform, but also to describe and report speech acts. Or rather, in terms of the theory put forth here, not only are such signs their own best interpretants, but they are often far more portable in their role as interpretants (describing actions) than they are in their role as signs (performing actions). And so, in this latter function, they may be used frequently and be distributed widely (even in the relative absence of their performative function), and thereby come to influence, and be influenced by, the linguistic ideologies of particular speech communities: the beliefs speakers have about language, its functions, and its users. Key works in this tradition include Agha 2007 and Lucy 1993. Crucially, the analytic framework developed by these scholars can easily be retrofitted to complement the concerns of this section: in particular, they may be applied to relatively emblematic indices more generally (and not just language-based signs) as mediating semiotic ontologies more generally (and not just language ideologies).

22 Even scholarly traditions that attempt to make minimal reference to social statuses and mental states, such as the quietly brilliant craft of conversational analysis as practiced by its more orthodox adherents, spend much of their time making reference to the "actions" (undertaken by interactants, themselves composed of "practices"). And everything said here can be applied to their findings: some sets of practices (which involve both

the composition of discursive moves, qua lexical and grammatical categories, and the position of discursive moves, qua placement in a sequence of moves) are more or less emblematic of particular actions. And such actions, in part, conform to context (qua intersubjective attitudes as to what signs are more or less appropriate and effective at a given moment, how so, and what inferences may be drawn when they are not) and, in part, transform context. That is, *practices are to actions (as these terms are used in that tradition) what indices are to kinds*. Conversational analysts of this type are only weirdly unique for having limited their purview to one sort of kind (essentially a communicative intention), a relatively small number of indices, and (usually) co-occurring text (rather than immediate context and culture, or intersubjective ontological assumptions, more generally). For this reason, the frequent elision of Mead in their references (see, for example, Schegloff's (2007) summary of his paradigm's findings) is quite telling.

Chapter 4

1 See *Being and Time* (1996 [1927]: part 1, division 1, Chapter 3), and *The Basic Problems of Phenomenology* (1988 [1975]: part 1, Chapter 3, §15). And see Brandom 1979; Dreyfus 1991; and Haugeland 1982, 1998a, 1998b.

2 Crucially, depending on the semiotic frame in question, the very same behavior, or mode of comportment more generally, may simultaneously be understood as heeding affordances, wielding instruments, undertaking actions, inhabiting roles, and fulfilling identities. For example, something as simple and innocuous as sitting down in a chair or flossing one's teeth is implicated in all of these semiotic processes at once. Meaning, then, is not just as embodied and embedded as it is enminded and articulated, it is also ontologized and enframed.

3 Though note that, following our discussion of kinds in Chapter 1, by referring to the object-component in these ways (purchase, function, purpose, etc.), our analytic vocabulary already runs the risk (and, of course, reaps the benefits) of objectifying them.

4 Notice that, insofar as such objects have their being in the interpretants they determine (as their conditional relata), and insofar as such signs often have iconic-indexical relations to their objects, the interpretants often have iconic-indexical relations to their signs. Therefore, many embedded interpretants of the constituents of the residential whole may be called *inverse iconic-indices*, or "mirror-interpretants" of their signs, often having a kind of hand-to-handle, sword-to-sheath, or mold-to-cast relation to them.

5 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 (1986 [1979]). And he noted 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" (ibid.). Haugeland (1998b) 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" (140).

6 See Taylor 1995:51 and Rosch 1975 for a discussion of this principle.

7 One might use the term *legi-function* to refer to the standard function of an instrument (irrespective of any particular interpretant of it), the *sin-function* would refer to the specific function of any instrument (in some particular interpretation), and the *quali-function*

would refer to the potential function(s) of an instrument. (And such ideas may be generalized for purchases, purposes, statuses, and values; furthermore, one would do well to distinguish between sin-functions [or sin-purchases, etc.] that are replicas and singularities.) In some sense, the quali-functions of an instrument are precisely its possible purchases.

8 See, for example, Brooks 1997; Dreyfus 1991; Gibson 1986 [1979]; Norman 2002 [1988]; Haugeland 1998a, 1998b; and Simon 1981 for elaborations of similar metaphors in non-semiotic idioms.

9 This term is adapted from Gibson (1986 [1979]:126), for whom *coperception* meant that information available to perceivers reveals as much about themselves, and their relation to the environment, as it does about the environment itself.

10 We are here presuming human-specific modes of significance and selection—in particular, human intentions underlying created interpretants. Many affordances (i.e., potentially any living kind) may be still selected and significant (on, say, phylogenetic time scales), but our focus is on human actions and intentions (as sources and scales of selection). That said, there are many interesting entities (say, cultigens sieved and selected on historical time scales by human populations) that are somewhere between affordances and instruments.

11 One affordance can even be an interpretant of another—in a very particular sense. In particular, some feature may provide a particular kind of purchase for some semiotic agent only because it is used in conjunction with some other feature that provides some other complementary purchase. Air, for example, may afford breathing only in the context of lungs.

12 In the theory offered here, so called "biological functions" are all really purchases. Hence, organs (originally meaning "instruments") are really affordances, whose key interpretants are incorporating (via other organs) and creating (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 "multipurchasive" 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.

13 See Weber 1978:7 on artifacts in relation to means and ends.

14 Compare Mead 1934:104.

15 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 stereotypically 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).

16 These are based on the well-known *Aktionsart* classes, a kind of cross-linguistic typology of verbal predicates (see van Valen and LaPolla 1997). Crucially, 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 projected a purpose onto them.

17 It should be stressed that all actions involve interpretants that the actor can commit to; what is important about actions whose objects are intentions (as opposed to purposes) is that the interpretants in question are representational interpretants. And, as per our definition of commitment in Chapter 3, this does not mean that the action (purpose or intention) is conscious or planned in the stereotypic sense. In particular, indices of commitment to particular ends often arise retrospectively as the result of parasitic processes in which actions get thwarted or diverted.

18 To be sure, we observers can attribute intentions to them (say, by describing their behaviors with representational interpretants). We can offer reasons for those intentions and our attributions can be quite good and behavior-predicting.

19 Such contextualizing relations serve as key inferential chains, such that any constituent may serve as a relatively inferential sign of another such constituent.

20 Indeed, Linton's claims, however otherwise insightful, were limited by his attempt to theorize roles via representations of the world instead of residence in the world. Of course, he was not alone in this kind of representational reification. Such processes plague much theorizing in the social sciences. Heidegger was perhaps the most prescient critic of precisely such a tendency in modernist thought more generally.

21 That is, just as actions and roles may more or less directly create instruments (and actions and roles), so may identities.

22 As will be discussed in Chapter 5, it also does not distinguish (in the important case of acting under a description) between intentions per se and reasons for the commitment. Such a distinction is crucial because it brings in new kinds of values, or "pro-attitudes," that may be related to new kinds of beliefs, and that may be used to offer rationales for new kinds of intentions. In short, 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.

23 If Sellars (1997 [1956]) says, in effect, perception is observation under a description, then most of these criticisms hold for his theory as well: experience is the flip side of behavior just as perception is the flip side of intention.

Chapter 5

1 In particular, Brentano's children—latter philosophers of language and mind such as Frege (1997 [1892]), Wittgenstein (1961 [1921]), Anscombe (1957), Austin (2003 [1955]), Sellars (1997 [1956]), Grice (1989b), Davidson (1984), Searle (1983), Brandom (1994), and Millikan (2004)—treat related concerns in a century's worth of celebrated texts. See Haugeland (1998a) for a classic summary of various understandings of intentionality.

2 See Brentano 1995 [1874]) and Chisholm 1967.

3 Framed another way, cognitive processes are understood as flexibly organized mental representations, themselves grounded in neurophysiological mechanisms and grounding of behavioral practices (Tomasello and Call 1997:8). And, in studying such processes, cognitive scientists—or "mentalists"—seek to determine the properties such mechanism exhibit and the functions they perform, without necessarily making reference to neurophysiology (Chomsky 1965:193).

4 There are many other kinds of mental states and speech acts that are not being discussed here.

5 The causal and rational, or indexical and inferential, nature of mental states has been fruitfully analyzed in Anscombe 1957, Brandom 1994, Davidson 1984, Grice 1989b, and Searle 1983.

6 Subjectivity means different things to different people. For example, there are subjects in the sovereign political sense, which most directly relates to agency: that which is simultaneously "subjective" (say, capable of decision) and "subjected" (say, vulnerable to coercion). Relatedly, there are subjects that relate to selves: the speaking subject, as that which can say "I" and, hence, be both speaker and topic, and the interpellated subject, as that which can be called "You" and, hence, be both topic and addressee. Here we focus on a generalized sense of subjectivity: the capacity to fail (to cohere). As we saw in earlier chapters, this sense of subjectivity is not unique to representations: residence in the world is more or less coherent. And this sense of subjectivity is not unique to humans: any process that is selected is "subject" to it.

7 See also Brandom 1994, Hacking 2001, and Sperber and Wilson 1995 [1986]) for more detailed theories of various forms of inference.

8 Compare such logical relationality of representations with the collateral relationality of commodities discussed in Chapter 3.

9 Money has a similar function in the domain of commodities.

10 To be sure, the action of petting the cat is itself caught up (as an action, insofar as it has an intention) in representations of the world, as well as modes of residence in the world via the kinds of incorporating, complementing, and creating relations it has to other semiotic processes (such as affordances, instruments, actions, roles, and identities).

11 Compare Brandom's (1994) notion of acknowledgment, or self-attributing, a commitment.

12 Things are actually much more complicated, as both mode and content (and thus roots and fruits as well as substance and structure) can make reference to properties of the speech event. Moreover, many grammatical categories (status, mood, evidentials, etc.) sit somewhere between mode and content. For these reasons, there is often no clean separation between mode and content or between speech act and state of affairs. And, more generally, we are glossing over the nature of deictic anchoring of propositional contents as it has already received such extensive elaboration. Kockelman (2010a) treats these issues at length.

13 There is no hard and fast distinction between substantive and structural content or open- and closed-class categories. They should not be thought of as positions in an opposition, but rather poles of a continuum.

14 Compare Peirce 1998 [1906–1908].

15 See Brandom 1979, Haugeland 1998a, Lewis 1969, Millikan 2005, and Weber 1978:54. Millikan 2005 has redefined *convention*, going against the grain of the famous definition in Lewis 1969. In particular, for a speech act to be conventional requires that it have several properties. First, its actual form is an instance of a more general form, that is, it is a replica, or a token, of a preexisting type. Second, it is proliferated by the weight of precedence, that is, it exists as a token by virtue of the fact that previous tokens of the same type existed. And third, there is an arbitrary relation between form and function—between the object-component and the sign-component or between the sign-component and the interpretant-component. Together, these three properties are iconic, indexical, and symbolic, respectively. Finally, in the case of the proper function of speech acts, the form

solves a coordination problem between two or more types of actors—and thus benefits both speaker and addressee, both signer and interpreter.

16 In other words, insofar as an intention is not just causal of a state of affairs, but also in need of a reason, its satisfaction conditions may include the belief (and perhaps pro-attitude) that justifies it. In other words, an intention may be the conclusion of a practical inference: (1) *if I open the door, then I can enter the room;* (2) *I want to enter the room;* (3) *so I shall open the door*. Such an inference has premises: a relatively foregrounded conditional (a belief involving an if-then sequence), a relatively backgrounded pro-attitude (qua desire, status, or value). And such an inference has a conclusion: the intention itself (I shall open the door). If asked to provide a reason for one's behavior, one may articulate such a sequence: both a belief (if-then) and a pro-attitude (a desire, status, value).

17 See Anscombe 1957, Brandom 1994, Davidson 1984, and Searle 1983.

18 From the standpoint of content, an intention represents the state of affairs that would result from the fulfillment of that intention (for example, *that I opened the door*). In this way, the content of an intention is nearly identical to the content of the belief (or assertion) that would truthfully describe the action instigated by the intention.

19 Sperber and Wilson's (1995 [1986]) account of Gricean inference through the lens of cognitive processes, and especially their account of mutual manifestness, is fundamental here, as is Tomasello's (2008) account of the phylogenetic and ontogenetic origins of such processes, with its focus on the pro-social attitudes that are involved. Mead 1934 is perhaps the earliest account of this idea. Other important works include Enfield 2006, 2009, Enfield and Levinson (2006), and Hanks 1991. Kockelman 2005 reviews the history of these kinds of claims.

20 For example, I know you are a husband insofar as (1) I saw the sign-event in which you were married (e.g., a wedding) or (2) I see the patterns of interaction you have with your spouse (e.g., exclusive love-making, shared credit cards, public intimacy, wedding rings, and so forth).

21 Indeed, it was noted that, as a function of semiotic framing, mediating propensities (or kinds more generally) could be understood in several ways: first, as an (ultimate) interpretant of another sign, second, as a (dynamic) object that gives rise to a sign, and third, as an (embodied) sign that gives rise to an interpretant (e.g., the way a role, qua performance, may be an interpretation of a status).

22 Crucially, these can be any kind of sign, including signs of other's mental states, and, hence, sign-interpretant relations.

23 Relatedly, both may be constituted by the same kinds as types (similarity) or the same kinds as tokens (intimacy).

24 The primatologists Tomasello and Call (1997) note that intentionality and causality both involve "temporally ordered events" (antecedent-consequent relations), where the antecedent event and the consequent event are "external to the observer," and where there is "some inferred intermediary cause or goal that organizes and 'explains' the event sequence such that different antecedents may lead to the same consequent . . . and the same antecedent may lead to different consequents in different circumstances" (383).

25 Here we are leaving aside the seemingly direct mapping between words and concepts, or the propositional contents of public and private representations more generally, and focusing instead on the mapping between public behaviors and mental states.

26 For example, knowledge claims about mental states (as made by disciplines such as psychology, anthropology, and philosophy) are grounded in historically specific

epistemes that turn on empirical investigations, theoretical representations, and practical interventions.

Chapter 6

1 Note, then, that a self consists of a semiotic agent's reflexive relations to her own semiotic processes: a subject (the agent) relates to an object (the processes) that is just the subject at one degree of remove. It is this reflexive relation that gives the ensemble of semiotic processes and, hence, the semiotic agent (qua self) its particular coherence. Given the kinds of coherence that we have detailed, the coherence (and potential incoherence) exhibited by the self is temporal as much as spatial, inferential as much as indexical, intersubjective as much as intrasubjective, ontological as much as epistemological.

2 Crucially, this entails that the unit of accountability and, hence, the scale of the self in question need not be the same as a biological individual. As with agents more generally, just as selves may be interpersonal entities (a family, a community) as much as intrapersonal entities (such as organs and phantasms), non-persons (such as animals and life forms more generally) have selves, oftentimes at several scales at once given issues such as inclusive fitness, and the fact that the locus of selection may be, arguably, the individual as much as the gene, and the population as much as the individual. Indeed, many artificial forms of life have selves in this sense. In any case, selves, like agents, and envorganisms more generally are the products of framing (as foregrounded in Chapter 2). Indeed, another related way to characterize the self is that which reflexively encloses and discloses. In short, the very processes that signify, and thereby disclose, such ontologically reflexive ensembles tend to simultaneously enclose them—framing them as relatively bounded and coherent wholes (Kockelman 2007b, 2011a).

3 Indeed, as we saw in Chapter 3, while fetishization is often understood as the unwarranted projection of agency, it may also be understood as the unwarranted projection of coherence—in this way, we are each consummate fetishists of ourselves.

4 As Cooley put it, "A self-idea of this sort seems to have three principal elements: the imagination of our appearance to the other person; the imagination of his judgment of that appearance, and some sort of self-feeling, such as pride or mortification" (1902:152). And as James had earlier put it, "a man has as many social selves as there are individuals who recognize him and carry an image of him in their mind. To wound any one of these images is to wound him" (1985 [1892]:46). Note, then, that the semiotic processes in question can be imagined as much as perceived or inferred.

5 In particular, Griffiths (1997) argues that the phenomena typically grouped under the term *emotion* actually fracture into three ontologically distinct parts, such that the concept itself does not delimit a natural kind. He thinks that such distinct pieces have been grouped together in the past only because they share a general feature of "passivity" in contrast to other cognitive phenomena (in particular, mental states underlying means-end reasoning, e.g., beliefs and intentions). And, in place of a single category, he argues that one must (minimally) keep separate affect programs (Darwin 1965 [1872]; Ekman and Davidson 1994; Ekman 2006), irruptive motivational states (Frank 1988), and socially sustained pretense (Averill 1980). In particular, for the purposes of expert reasoning (generalization, induction, etc.), it does not help scholars to group such forms of anger together—what one discovers about one form cannot be used to understand the others. It is for this reason that

Griffiths argues that the category delimited by our everyday concept of "emotion" does not constitute a natural kind.

6 In this way, one does not demand a reason for them, or invoke them if a reason is demanded. That is, relatively speaking, they fall out of the inferential articulation, and inter- and intrapersonal inheritance (of commitments and entitlements), that was seen to be fundamental to beliefs, perceptions, and intentions.

7 Relatedly, insofar as affect programs (Darwin 1965 [1872]; Ekman 2006; Griffiths 1997) involve what is perhaps the most emblematic sign of emotional statuses (facial expressions), and insofar as affect programs are on the boundary of what is regimented by causes versus norms (and, hence, what is maximally motivated), properties of (and theories about) affect programs are easily projected onto other seemingly emotional phenomena: naturalness, motivation, uncontrollability, and so forth.

8 For example, affective interpretants, in the strict sense, and uncontrolled energetic interpretants.

9 Note, then, that, somewhat paradoxically, even though the object components of affective unfoldings are the semiotic processes that constitute one's self-as-ensemble as objects (insofar as one is highly accountable for these semiotic processes and, concomitantly, cares deeply about them), the interpretant components of affective unfoldings may constitute semiotic processes which one is less accountable for.

10 In some sense, then, this is a way of linking the insights of James with those of Mead, as developed in Chapter 3 during the discussion of performativity. In particular, what selfhood as temporality really bears a resemblance to is Mead's theory of the self as a dialogue between an I and a Me: the Me is the self as appropriating, having taking into account others' interpretations of the kinds that constitute it, and the I is the self as effecting, evincing indices that change others' interpretations of its kindedness. Crucially, however, neither James nor Mead had a theory of value per se—as that which, as per the ideas of Chapter 4, grounds the relative coherence of the kinds that constitute us and, hence, our identity over time.

11 Critiques of orienteering metaphors, their relation to orientalism, and so forth are well known, and so will not be rehearsed here.

12 Like any real map of any physical terrain, maps may be drawn to different scales: more or less detail may be shown, and more or less mental states, social statuses, and material substances may be delimited. In the context of this metaphor, the usual questions about mediation and performativity arise. Does the interpreter project features of the sign (qua map) onto the object (qua terrain)? Or was the sign iconically designed to have features in common with the object? More generally, maps may give rise to terrains (just as words and concepts may drive categories), and terrains may give rise to maps (just as categories may drive concepts and words). In a Peircean idiom, the terrain may be both a dynamic and an immediate object of the map as sign, thereby relating to it as cause to effect or as effect to cause.

13 As Taylor (1985) phrases it, "what is distinctly human is the power to *evaluate* our desires, to regard some as desirable and others as undesirable" (15–16; and see Frankfurt 1971).

14 See, for example, Rubinstein 2006 and Varian 2006 for crisp (and sometimes critical) articulations of relatively entrenched microeconomic ontologies.

15 As he phrased, it, people and things in the actor's environment are used as means for "the attainment of the actor's own rationally pursued and calculated ends" (1978:24).

16 Choices might still exist: there might be a variety of standardized dimensions relative to which one may weigh the relative desirability of paths and destinations. Choice, then, would come down to choosing which dimension, or weighted set of dimensions, to use to determine relative desirability. Moreover, we might imagine using different dimensions at different positions in life, or in different regions of the terrain. And we might imagine terrains that are not yet subject to standardization and dimensionalization, such that other criteria, or no criteria, would have to apply.

17 As Peirce saw it, "death makes the number of our risks, of our inferences, finite, and so makes their mean result uncertain. The very idea of probability and of reasoning rests on the assumption that this number is indefinitely great" (1955c:149).

18 See Taylor 1995 for a review; and see Putnam 1975 and Rosch 1975 for classic articulations. I am here boiling down some of the ideas to their essence for the sake of exposition.

19 Such standards might exist, but they might not be publicly available, or one might not have enough expertise to apply them.

20 Perhaps the works of Cepek (2008a, 2008b) and Guyer (2004), at once fiercely theoretical and deeply empirical, most clearly resonate with these ideas.

21 These modes of agency should affect not only maps (qua signs), but also terrains (qua objects) and travelers (qua interpreters).

22 As Heidegger would put it: "what is thus nearest to us ontically is exactly farthest from us ontologically" (1988 [1975]:155).

23 Loosely speaking, just as value was framed as second-order desire in section 2, authenticity (qua agency over a map) may be framed as third-order desire (or second-order value) and radical choice might be framed as fourth-order desire.

24 Just as interpreters of a nation's constitution or a religion's holy book would have to reevaluate its outdated or ancient ideas in light of new events and experiences (or not, as some would argue the case often is—thereby getting more and more lost with each successive generation).

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