



Peter Caws

Understanding the Human World: Structure, Instruction and Deconstruction

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In 1845 Karl Marx, in his eleventh thesis on Feuerbach, sounded a revolutionary call to philosophy: up to that point, he said, philosophers had tried to *understand* the world, but the point was, rather, to *change* it. Since it would obviously be foolish to try to change a world one didn't understand – think of the things that could go wrong! – Marx must have thought that the job of understanding was well in hand. Indeed he regarded his own work as scientific, as doing for history and society what Darwin had recently succeeded in doing for the biological world.

A century and a half later Marx's revolution has germinated, come to flower, and faded again, a spectacular and costly failure. It seems that there is more work to be done on understanding the world. The world has changed too, sometimes though not always as a result of understanding (among the things to be understood are the ways in which it changes). What are our tools for understanding the world and its history? Are they adequate? How do they need to be revised or supplemented?

Twelve years before Marx's *Theses on Feuerbach* John Stuart Mill published his *System of Logic*, which set a standard for discussions of scientific method that is still influential today. At the end of this work he discussed what he called the "moral sciences," a term which, after being translated into German as *Geisteswissenschaften* and then into French as *sciences humaines*, has re-entered philosophical debate in English as the "human sciences." Mill thought the moral sciences could prosper only by imitating the natural sciences. This was another costly mistake, which could be corrected, ironically enough, only when the natural sciences had progressed far enough to understand just how the human world is constructed out of the natural one.

This paper offers an account of the emergence of the human from the natural, for the species and for the individual, showing how human sciences properly so called are possible, and suggesting some strategies for change based on the understanding that the human sciences provide.

I. Worlds and Histories

Shortly after I arrived in the United States from England, 45 years ago, I walked by a bar in New Haven in the window of which the score of a baseball game was being posted, inning by inning, on a blackboard. Coming as I did from a country whose national summer game was cricket, in which it was not unusual for a single player to score 100 runs in a single innings, I was bemused to observe that in the first four innings of the game, which was as far as the record went, neither side had scored at all; the boxes on the board contained an unbroken array of zeroes. Thanks to the ready availability of baseball statistics I've been able to

pinpoint exactly when this little encounter occurred: it was on October 2, 1953, and the game, scoreless at the top of the fifth, was being played at Ebbetts Field, Brooklyn, between the Brooklyn Dodgers and the New York Yankees.

One of the things that intrigued me at the time about this quaint and, given all those zeroes, apparently futile venture was that it was part of something called the World Series. As it happened Brooklyn went on to win the game, though the Yankees took the series, 4-2, the fifth in a record-setting streak of six consecutive World Series victories. But I'm not here to talk about the history of baseball – what I want to begin with is that term *world*. I took it to be a bit of characteristically American bragging: how could it be the “world series” when I, worldly me, having grown up in London, clearly the center of the world, had practically never heard of baseball, except perhaps as an exotic and colonial form of rounders, the game that schoolgirls played instead of cricket?

However I was using “world” in a straightforward and, as I now think, rather unimaginative sense to mean roughly the surface of the earth as represented in World Atlases drawn up by English cartographers, who properly put England, with its zero degree of longitude, the Greenwich meridian, at front and center. I hadn't then seen the church of Saint-Sulpice in Paris with its zero degree of longitude, and I hadn't realized that Paris too thought itself the center of the world, as did (and increasingly does) New York City. It turns out to be practically definitive of the concept of “world” that one is oneself at the center of it, a point to which I will return. But it's also the case that the term has a whole range of applications beside my straightforward one, and always has had.

If we ask what world the World Series is the series of, a perfectly good answer is that it's the world of (American) baseball. In a similar way we speak of the world of chess, the academic world, the world of dog breeders, and so on. In these cases “world” refers to a domain of human interest, and this use is found in its Greek and Latin precursors, *kosmos* and *mundus*. The *kosmos* is an *ordered* world (*kosmos* originally meant order or arrangement), and although for us it's a very big world – of cosmological proportions, we might say – for the Greeks it meant also quite local and domestic order, including ornamentation. Our word “cosmetics” is a descendant of this use. Similarly in Latin one of the standard illustrations of *mundus* (whose basic sense is “neat” or “elegant”) is Livy's expression *mundus muliebris*, “woman's world,” meaning “toilet-things” or again “ornament.”

The derivation of the English word “world” makes the human component even more explicit. Its roots in Old English are *wer* and *ald*, “man” and “age.” *Wer* is related to Latin *vir*, “man,” and both these terms have remnants in our current speech: “werewolf,” a man-wolf, and “virile,” or manly. *Ald* is obvious enough: “old,” but also “aged.” So we have *wer-ald*, the age of man, the present age, the domain of human striving and creation throughout history. Even in some apparently non-human contexts – the world of insects, the undersea world, the world of the atom – there's a suggestion of human involvement: by means of cameras or snorkels or diagrams we put ourselves in the position of

explorers and observers of these exotic domains.

Still as we all know “world” also carries the meaning “universe,” the whole range of possibility, human and non-human, over all of space and time. Sometimes people mean that when they speak of the creation of the world, though creationists should take note that that would originally have meant the world in the sense I’ve been developing, Adam’s world, nothing like the Big Bang. Sometimes we speak of the physical or natural world, which is cosmic in extent, as over against the human world, which is relatively local. I’ve tried to suggest (in an article called “Physical Universe, Cultural Worlds”²) that it would be good to drop this usage. No doubt this would be an uphill battle – too many works in physics and the philosophy of science have enshrined it (Eddington’s *The Nature of the Physical World*, Carnap’s *The Logical Structure of the World*, and many others) – but there’s no reason not to stipulate here that by “worlds” we’ll mean the many domains of what there is in relation to human interests (many because those interests are diverse) and by “universe” the one great domain of what there is independently of human interest. The two overlap in obvious ways, since some things that could perfectly well exist exactly as they are independently of any human interests may come nevertheless to be objects of those interests. Also someone might want to argue that human interests exist independently of human interest, in the sense that, while we have interests, our having them doesn’t depend on an antecedent interest in having them. This would bring the worlds into the universe. But that wouldn’t be surprising! – we could hardly maintain that they were outside it. We might think of the worlds as occupying parts of the universe, extending out from centers of interest. Later on I’ll try to make this notion a little more exact, and will propose what I call the “paradox of the universe,” but some other things need to be put in place first.

I could say a lot more about the history of this pervasive concept of “world,” which is full of wonderful contradictions. Let me give you just one more before launching into the main argument. I had a pious upbringing, against which I rebelled – a good start for a philosopher – and my parents had a horror of what they called the world, and of all things worldly. I remember being puzzled by the fact that whereas in a fairly obscure New Testament verse, James 4:4, the friendship of the world is said to be enmity with God, in a rather more famous one, John 3:16, God is said to have so loved the world that he sent his only beloved son to save it – *kosmos* in both cases. I won’t go into the theological arguments this contrast might provoke – the Christians among you will be able to think of a quick answer to the challenge, but this would no doubt provoke a counter-argument, and we’d never get back to our topic. But I hope I’ve said enough to convince you that the term “world” is not one for which a simple or univocal meaning can safely be assumed, so that it should be used with great care in any proposition on which weight is to hang.

Such a proposition is to be found in Karl Marx’s *Theses on Feuerbach* of 1854: *Die Philosophen haben die Welt nur verschieden interpretiert; es kommt aber darauf an, sie zu verändern*³ (“the philosophers have interpreted the world in different

ways; but what matters is to *change* it"). What is the referent of 'world' here? Marx seems to have thought, following Hegel, that there was one big thing that could be the subject of history, *Weltgeschichte*, "universal history"; he differed from Hegel mainly about what it was made of, Hegel having, as Marx saw it, stood the world on its head by taking it to be ideal, so that Marx needed to put it on its feet again by stressing its material character. His ambition was to be the Darwin of the historical sciences – he even wrote to Darwin asking permission to dedicate *Das Kapital* to him, a move that seems to have mystified Darwin (who is this German chap?) and failed of its desired effect – and in his speech at Marx's graveside Engels claims this status for him. But while "natural history," Darwin's field of inquiry, might be considered to correspond to one big thing, the biosphere and its interrelated inhabitants, it is far from obvious that the different elements of human history are interrelated in a corresponding way. If there are to be "historical sciences" they have to be much clearer about the complexity of human worlds than Marx seems to have been. The attempt to see the world as one and to help its history along by revolutionary action led in practice to the catastrophe of the world Communist movement and its eventual implosion, with all the suffering and the shattering of worlds that it brought in its train.

One further point about Marx before I move on. In spite of his being seduced by Hegel's world-historical delusions he might still have had a more effective voice in the history of political philosophy if he had not been so intemperate. By making Communism a threat of overthrow and expropriation he effectively blocked the way for the thoughtful acceptance of what was insightful about his analysis of capital. There's more than a little truth, and more than a little reason for regret, in the remark attributed to some wit in the New Russia: "Everything they told us about communism was false – but everything they told us about capitalism was true." Marx is one of a class of people that I call "clumsy prophets," whose rhetoric works against their positive contributions. To talk about specters haunting Europe, and painting the red cross of the *Vehmgericht* on the doors of the rich, does not encourage the reflective consideration of economic alternatives.

The main problem with the citation from Marx, however, is our world problem: what world is it that is to be interpreted or changed, what is world history the history of? The question is similar, and not only superficially similar, to the earlier question: what is the World Series the series of? To that question I replied: the world of baseball. But whose world is that? It isn't just the part of the physical world that consists of baseballs and bats and diamonds – it's essentially, in line with the view that worlds are relative to humans, the world of owners, players, and fans. So in the parallel case we might come up with this awkward but sufficiently exact formulation: the world world history is the history of is the world of world historians and their readers. This doesn't mean it's all made up by them, but it does mean that their criteria determine what belongs in it. In other words, if the world is to have a history at all there has to be a historian. However – and this is where Marx came adrift – this isn't the

only, or, to most of us, the most important history we have, nor the only world of which we have the history. To begin with, we all have a personal world, whose history is in the first instance sustained by memory, though that comes in most cases to be supplemented by the documents and monuments in which historians traffic. Documents, as their name suggests, teach, monuments memorialize. We read letters and birth certificates, look at family photos (and, these days, videos), and so, with the collusion (and sometimes the resistance) of memory, construct our own history.

It was in meditating on this process that it occurred to me, a while ago, to float a hypothesis: *only individuals have histories*. I remember sharing this thought with a brilliant political scientist of my acquaintance, on the way to developing it into a full-fledged theory of cultural objects, which is what I'm doing again now. At some point in the conversation she said "When you said just now that the only history was the history of individuals ..." No! I said, *only individuals have histories*, but the histories they have need not only be the histories of individuals – an individual can "have" the history of the United States, or the history of philosophy, or the history of the English language, or the history of baseball. To take the matter a step further, there is no United States or English language unless individuals "have" them, which means that they don't exist as objective givens (I'll say more about this apparently preposterous claim later). One of the things individuals can "have" about such an object is its history, in fact having a history is one of its prime modes of being for the individuals who learn, recognize, and sustain it.

Can there be a science of history? This question was for a long time the hinge question, as it were, between the natural sciences on the one hand and the social sciences and humanities on the other. Of course there have been many *theories* of history ('theory' means literally a way of looking at something), going back to myths of origin and destiny and including the still-dominant Judaeo-Christian scenario of creation, fall, redemption, judgment, and eventual consignment to heaven or hell – but as that example shows clearly enough not all theories are scientific theories. The "New Science" of Giambattista Vico (written between 1725 and 1744) represented an attempt to explain the historical development of legal and political structures in terms of an underlying hypothesis about human nature and rationality modified by local conditions. Vico thought that history ought to be easier to understand than nature because it is something that has been made by human beings like us, whereas nature, having been made by God, may well be beyond our understanding. What this touching confidence overlooks is that we ourselves are by far the most complicated objects in nature. But Vico has the merit of having given currency to the idea of a science of history. To make a long and interesting story very short I jump from Vico to what may be seen as a sort of provisional culmination of the trend he started, Wilhelm Dilthey's "attempt to lay a foundation for the study of society and history" which he published in 1883 under the title *Einleitung in die Geisteswissenschaften*, "Introduction to the"

How in fact should we translate *Geisteswissenschaften*? *Geist* is that awkward

term, the closest etymological relative of which in English is “ghost,” that Hegel uses in his *Phänomenologie des Geistes* and that English translators have still not decided how to render, split as they are between “spirit” and “mind.” We know however what Dilthey thought *Geisteswissenschaften* was a translation of. In the *Einleitung* he says:

The sum of intellectual facts which fall under the notion of science is usually divided into two groups, one marked by the name “natural science”; for the other, oddly enough, there is no generally accepted designation. I subscribe to the linguistic usage of thinkers who call this other half of the intellectual world the ‘sciences of the mind’ [*Geisteswissenschaften*]. In the first place this description has become common and generally understood, not least because of the wide dissemination of John Stuart Mill’s *Logic*⁴

The translation of Dilthey from which I quote here calls his book *Introduction to the Human Sciences* – but that’s not the expression Mill uses in his *System of Logic*, the work to which Dilthey is referring, nor does he speak of “sciences of the mind,” which is the translator’s gloss. Book VI of Mill’s work deals with what he calls the “moral sciences.” (To see how shifting terminology in this area can be, consider that it was until recently and may still be the case that a degree at Cambridge in the sciences came under “natural philosophy” while a degree in philosophy came under the “moral sciences.”) So “moral sciences” gives *Geisteswissenschaften*, but it is the French translation of this term as *sciences humaines* that leads, re-crossing the English Channel, to the “human sciences” that Dilthey’s translator uses.

This genealogy is not altogether a happy one, because the ancestor to which it is traced was not sympathetic to what it gave rise to. By assimilating the objects and methods of the moral sciences to those of the natural sciences Mill paved the way for a misunderstanding as serious, in its way, as Marx’s, and moreover one that remained influential in the English-speaking world, which has only recently begun to take serious notice of the Continental side of the story. (Note that “English-speaking world,” a good example of the usage I’ve been discussing.) Mill thought that the way into a science of the human was through psychology, which for him was essentially associationist psychology: the mind operates with ideas that come in predictable clusters, though their interrelations may be affected by social context (he proposed the name “ethology” for a science that would study just how social formations influence character). What’s wrong with associationist psychology is not its view that ideas are interrelated but its view that the associations that govern this interrelation are given, as it were, as natural properties of the ideas themselves or of the mind in which they have their being, these being regarded as entries in the ontology of the universe on a par with, though admittedly more complicated than, the objects of the other sciences.

For Mill the natural and moral sciences are on a continuum, and the passage from one to the other involves no basic shift in outlook, only an increasing

complexity of data. But that overlooks a problem of reflexivity anticipated in a way by Vico, though not explicitly, and certainly not in its implications. If we settle from now on on the term “human sciences” as summarizing most elegantly what is meant by *Geisteswissenschaften* or moral sciences or the sciences of the mind, we can say, of the transition to them from the natural sciences, not merely that attention shifts from what God made (or at all events what we didn’t make) to what we made, but that it shifts from what is other than us to us, we ourselves. And the difference between subjects in relation to objects and subjects in relation to themselves is as radical a difference as we can imagine. It is the failure to notice the intrusion of reflexivity that has brought to grief most efforts to understand the human world. It is the sort of thing that, at about the time of Mill, Kierkegaard noticed about Hegel: there’s something left out of the system, and that is the subject whose system it is, or whose understanding is supposed to be enlightened by it.

2. Worlds and their structures

Let me now change gears and approach my topic from a different angle, remembering however what we’ve agreed so far: that worlds are relative to human interests and that there’s a problem with the assumption that the techniques of the natural sciences, which deal with a universe from which human interest has been abstracted, can be extended in any simple way to the humanly interesting contents of such worlds. How do the worlds stand in relation to the universe? Suppose we begin with the subject, the individual subject, in other words with you, or me, or as Jean-Paul Sartre might have said *n’importe qui*, just anybody. Let us define each subject’s *momentary world* as just that collection of objects of attention or intention that happen to be present to it at the present moment. My momentary world (and it’s the only one to which I have access) is pretty focused on what I’m doing now, trying to make sense of a complex topic to an audience I’ve only recently met; I’m aware of my surroundings, of where I’m standing, of your faces, only marginally aware of anything else much. You on the other hand are probably less intensely engaged; your mind can wander, as we say, and no doubt will if I don’t hold your attention.

What’s in your momentary world? – a heterogeneous collection of elements: perceptions, memories, feelings, reveries, fantasies, trains of thought (perhaps provoked by what I’m saying, perhaps by something quite different). Most of the time, at least during waking hours, most people’s momentary worlds are dominated by perception, and it’s a fair assumption, given our evolutionary history, that what we perceive corresponds in some rough way to what’s out there (if it didn’t we’d always be bumping into furniture or falling off cliffs). Thought is often taken to be of a different order from perception, a pale reflection of it perhaps. But in our experience there’s no clear-cut distinction between thought and perception: both are forms of appearance. The root meaning of ‘thinking’ is “seeming” – in ordinary-language contexts we still say “it seems to me” interchangeably with “I think” – and the main difference

between thought and perception is that perception is a particularly vivid and involuntary form of seeming. I'm inclined to say that the basic function is thought, and that perception as it were hijacks thought, overwhelms it. It's the external world's way of telling us what to think – usually, although not always, veridically and for our own good.

Of course your momentary world changes, precisely from moment to moment. Suppose the stimulus of the moment removed, for example in a sensory-deprivation experiment; you'll still have a momentary world (though it's interesting to note that things come apart pretty quickly if there's no exchange with the environment, which suggests that the momentary world in some way depends on that exchange for its animation) – what *might* be in that world under those circumstances? Well, you have resources: memory, other thought processes, imagination, creativity. Think of the productivity of certain minds in prison, even of the popular conception that people's lives flash past at the moment of impending death – where does all that come from? I'm reminded of a friend, a scholarly type whose work stays pretty close to the text, who when looking at one of my books said, with what I took to be mock admiration concealing real disdain, “and it all came out of your head!” But yes, we all have a lot of stuff “in our heads,” though we don't all make books out of it. Memory and mind are closely connected concepts, and St. Augustine has a remarkably contemporary account of the mental world each of us has access to: he speaks of “the fields and spacious palaces of memory,” of the “huge court of my memory,” of the “immense capacity of my memory.” “Great indeed is the power of memory!” he exclaims, and goes on “It is something terrifying, my God, a profound and infinite multiplicity; and this thing is the mind, and this thing is I myself.”⁵ Think then of mind and memory as constituting a world, no longer momentary, and of consciousness as a kind of scanner that can bring parts of this world to attention, or intend objects in it. Most of what gets intended or attended to will have been an element of some past momentary world. What I will now call the subject's *cumulative world* (or again, *my cumulative world* as the only one I can know directly) will have been built over time out of such elements, particularly those that endure or recur, along with other material (in a metaphoric sense) to be discussed later.

An important point to recognize about my momentary and cumulative worlds is their great idiosyncrasy. Only when I begin to compare my worlds with those of others does some constraint enter; at this point I and those others will be able to speak of our *world(s) in common*, though these will be sharply reduced in scope in comparison to my own worlds (there are lots of things I notice that there's not time to share, lots of things I think that I don't choose to say). However some of the things that are to be found in our common worlds will show up so regularly and reliably that an irresistible and quite natural conclusion will be that there exists a world (we can still call it a world) that is independent of any of the other worlds; I will call this *the subsisting world* (*the now, not my or our*).. The concept of the universe is a logical extension of this series. The subsisting world is limited in the first instance to what is required

by the recurrent features of my momentary world, and by the constant features of my cumulative world and our worlds in common, but it is easy to extrapolate beyond this – there may be more of the same, objects other than or different from the ones we attend to or intend, times and places before or beyond the times and places we know – and this to infinity. In fact the French philosopher Gaston Bachelard once defined the universe as “the infinite of my inattention.”⁶ Clearly there may be many parts of it to which I couldn’t attend directly if I wanted – parts far from what I call the “flat region” where it’s reasonable to think, as I assumed above, that there’s some sort of working correspondence between the structure of the universe and that of the subsisting world. The latter is mediated to us by our worlds in common and our cumulative and momentary worlds; here we know there’s a structural correspondence, because that’s how it was constructed in the first place.

The problem of structural correspondence between worlds is not the same as that of structural correspondence between worlds and parts of the universe. There is a presumption that shared perceptual objects anchor worlds to the universe, but what about all the other objects that we share, language, theories, jokes, expectations? For these I need to introduce the notion of an *intentional object*. First, though, what do I mean exactly by a structural correspondence? To quote the Introduction to my book *Structuralism: A Philosophy for the Human Sciences*: “Structuralism is a philosophical view according to which the reality of the objects of the human or social sciences is relational rather than substantial.”⁷ Structural correspondence means that sets of relations (which is how I define “structures”) map on to one another. What are the available types of relation that might be in play here? Perceptual ones obviously enough, spatio-temporal, comparative etc. Next, also obviously enough, linguistic ones, at first realizing in referential terms the perceptual relations they describe; thanks to them we can check one another’s observations and reassure ourselves that we share perceptual objects and hence live in a world in common. However language is not tied essentially to perception, it can go off on its own and describe objects we can’t share perceptually: negations, ideals, abstractions, impossibilities – the square root of minus one, the golden mountain, the round square. What is *their* status?

In the first instance, they don’t exist independently of the relations into which they enter. Perceptual objects, at least stable macroscopic ones, can be thought of as “existing,” i.e. as standing forth into the (perceptual) world, *before* they are perceived as entering into relations, but these new objects exist *only* as they enter into relations. They are, we might say, constituted by the relations into which they enter. When we come to think of it clearly it’s obvious that language itself is like that – a point that has been commonplace in certain circles since Ferdinand de Saussure but is still not widely recognized enough. A name comes into being as *a name* only in relation to what it names. And the point has wider application: for example, parents come into being as *parents* only in relation to their children. Examples could easily be multiplied.

Franz Brentano, puzzled by the fact that we can entertain thoughts of

contradictions and impossibilities, coined the expression “intentional inexistence” to describe their ontological status. (The concept of intentionality has a history of its own, from Brentano’s medieval forebears up to Husserl and more recently analytic philosophers like Dennett and Dretske and Searle, though they can’t be held responsible for what follows.) “Intentional objects” in my momentary world are the ones I choose or am invited to think of, that get elicited or evoked independently of perception. If perceptual objects have a claim to structural correspondence with a natural or physical reality, to be entries in our subsisting worlds, intentional objects belong as such wholly to human worlds. I add “assuch” because an object that is or could be encountered as perceptual can be evoked as intentional in memory or imagination.

So here is a new cut between the natural and the human sciences: the empirical base of the former will be perceptual objects, of the latter intentional objects. The relations that constitute (that create and sustain) the objects of the human sciences are intended (in the phenomenological sense) by knowing subjects. These relations (and the objects they constitute) may be and often are embedded (or embodied) in substantial or perceptual objects but are not identical with or reducible to these objects. The most basic constitutive relation of this intentional sort is one that I have called “apposition”: it holds between elements (whether perceptual or intentional) that are taken to “go together,” such as a name and a face, a word in English and a word in French, a symbol and its interpretation, and so on. Putting and holding such things together appears to be an innate competence of thinking subjects. Apposition creates pure intentional objects: to take the most elementary case from Saussure, the signifier and the signified may be given, but the sign which is their going-together is intended. No doubt apposition is part of the truth of associationist psychology – but the association is made, not discovered. It may not have been made for the first time by me, indeed in the case of most linguistic or cultural appositions it will have been learned, but what was learned was not some abstract pairing – I had to learn *how to make it*, rather in the way I learned how to tie a shoelace or use a spoon. That is why the first word a child speaks is so important: it is an achievement, and it shows that the appositional function is in working order. That’s not how most people would put it, but that’s what is happening.

3. Brains and their worlds

The ability of knowing subjects to intend the objects of the human sciences, and the apparent objectivity and stability of some of the complex worlds in which these objects are found, require explanation. Human worlds emerge from the natural world at singular points associated with complex central nervous systems. How does this happen?

What would it mean to have an answer to this question? The problem with explanations of subjectivity – and it is of the essence of human worlds that they are relative to subjects – is that it *takes a subject to understand an explanation*, to

constitute it as an explanation. I said earlier that subjects are the centers of their worlds, and that's true of their cumulative worlds (imagine a radar sweep putting together, and saving, a picture of the world within its range); in the case of momentary worlds, though, it's better to think of the subject as like the eye in Wittgenstein's diagram in the *Tractatus*⁸: at the apex of a cone-shaped region defined by the sagittal relation between the subject and its momentary domain of objects. Wittgenstein, it is true, says there that "the form of the visual field is surely not like this," and of course he is right if what is meant is the visual field as seen by the subject – but it's still a good way of thinking of the subject's relation to its world as seen from the outside.

If subjectivity can't be explained it can nevertheless be zeroed in on, as it were, and I've tried to work this approach out in several places, notably in an article called "Subjectivity in the Machine."⁹ It's characteristic of singularities that they don't fall on the lawlike curves that describe the behavior of objects in a space – that's what makes them singularities – although they can be *located* in the space. In the space of this room there's a collection of the singular points that are associated with subjectivity, one (or more!) per head – "or more" because of the under-reported condition of the multiplying and dissociation of subjectivities, usually called a disorder (MPD or "multiple personality disorder," now re-christened DID or "dissociative identity disorder" by psychiatrists), though it's not clear that once recognized and adapted to it need be a disorder at all. The subjects associated with these singular points have the worlds I've been describing; we also say of them – of ourselves – that we have lives (sometimes we tell one another to get one), and in the phenomenological tradition the worlds and the lives are conflated into the umbrella concept of the *Lebenswelt*, the "lifeworld." This is one of a number of worlds that come out of phenomenology and its associated inquiries, others being the *Umwelt* or "surrounding world" (a more Latinate way of saying which would be "environment") and the *Mitwelt* or "accompanying world," roughly the features of the immediate environment (people, things) that we "take with us" wherever we go.

One of the problems with the idea of the lifeworld as Husserl develops it is that he takes it to have or to acquire a common aspect inevitably, as it were automatically or on its own. This development is needed, he thinks, in order to avoid solipsism. For me on the other hand there is nothing inconsistent in the idea that other people show up in my momentary and cumulative worlds, that in those worlds I can converse with them, and that I can, along with them, learn to refer to a world we agree on as a common world - common in the sense not that we inhabit it together or have it jointly, but that each of us has it individually and takes the others to have it too. Subject to this clarification, nothing is lost by assimilating our various worlds to the lifeworld, and something is gained in the way of philosophical solidarity and simplification, so I will adopt this way of speaking from now on. Lifeworlds are populated in the first instance by idiosyncratic objects not constrained (except in the case of objects corresponding to physical externalities) by any criteria of coherence or realiz-

ability. The process of acculturation standardizes these lifeworlds, but it also impoverishes them. We become wary of admitting to the more florid private contents of our lifeworlds and fall back on commonplaces, i.e. elements we know them to have in common and that will not alarm other people. And in time it may be that these commonplaces take over the private worlds as well, so that we become as commonplace as the lowest common denominator of our community – we may take ourselves, in Sartre's words, for other people, for the roles we play in other people's worlds, waiters, spouses, professors.

Could we share the private worlds and thus preserve their freshness and originality? Could we do so with any precision, so that we could be sure that we *were* sharing and not just imagining that we were? Could there be objects in those worlds that had definitions and interrelations as exact and regular as the definitions and interrelations of the objects of the natural sciences? This is where the human sciences come into their own. In fact we've been presupposing them already, because we can't understand the "process of acculturation" without them. How do other people's objects get into our worlds? How do they accumulate and interconnect into the human worlds we grew up in just as confidently as we grew up in the natural one? To get clear about this we need to come back to the concept of structure, of the mental structure – the sets of relations that constitute perception, thought, and speech, and mediate between them.

The concept of structure makes available a technical sense for the concept of *instruction*, not as pedagogy but as the "structuring of the inner," "in-struction." I distinguish different forms of instruction:

- genetic instruction, which comes hard-wired;
- epigenetic instruction, which is realized during the expression of genetic structure and is jointly determined by it and developmental conditions;
- experiential instruction, which occurs in encounters with the physical environment, including the subject's body;
- cultural instruction, which is effected by exchange with other people and involves the acquisition of ready-made social and linguistic structures; and
- autonomic instruction, which is carried out by the subject him – or herself.

Of these modes of instruction the fourth is the dominant one and the fifth the most important, in the sense that by far the largest proportion of acquired structure in a literate population will have been put in place through reading and other forms of interpersonal communication, but this will tend to have produced individuals who are virtual clones of one another unless they have worked over their acquired structures and made them their own in their own ways. In other words the standardization (and impoverishment) referred to above come about mainly through cultural instruction, which causes to be internalized large ready-made structures of belief and practice that are at best pointless and are often vicious and destructive; but individuals are not at the mercy of these cultural forces, because they can work on structures already instructed by way of rehearsal, rearrangement, challenge, imaginative enlargement and so on. They can do this whenever they like, and keep doing it.

Teaching them to do so ought to be a regular and essential part of the educational process. This is not adequately done – certainly not explicitly or convincingly enough – because formal instruction often seems authoritative, and believed to be so by those who impart it. And yet the rewards of such autonomic instruction are immeasurable. Someone once asked Isaac Newton how he was able to solve so many theoretical problems: “by always thinking unto them,” he replied. This *thinking unto* is of the very essence of autonomic instruction, because thinking is inevitably a modification of mental structure, though it is not always *directed* in the way Newton suggests.

A handy name for this process of autonomic instruction, when it is engaged in critically and analytically – “directed” in the sense just evoked – is *deconstruction*. This term, used by Derrida to render the Germanic “destruction” that Heidegger proposed to perform on the history of Western ontology, has become something of a bugbear to the academic right – an attack on civilization as we know it! – but as I’ve suggested elsewhere¹⁰ the exercise of deconstructing acquired structures goes back at least to Descartes (a case could be made for tracing it back to Socrates). Descartes seems to have thought that this working-over might be done once and for all: each belief (and beliefs can be represented as sets of relations between contents and dispositions, i.e. as structures) would be taken out and examined, and put back or replaced by another belief according as it did or did not stand up under rational scrutiny. This however represents only a limited exercise in autonomic instruction; my own inclination is to recommend that it be an ongoing practice. The ability of human subjects to self-instruct undercuts definitively the old opposition between nature and nurture, genetics and environment, as determinants of thought or character. True, genetically – determined hardware sets limits to what is *possible* to thought – but these limits are generous, given normal brain functioning, and few of us ever actually come up against them. True also, environmental influences, especially affectively-laden ones like family relations, make it hard to challenge early religious or ideological instruction, but they do not make it impossible.

The realization that many apparently objective features of the world exist in the lifeworlds of subjects *and only there* would make a great difference to the way in which the human world and its values are regarded and taught. Meanings, fictional characters, values, institutions etc., while they may sometimes (as already suggested) be embodied in texts, artifacts, ritual practices and so on (elements of what Jean-Paul Sartre called the “practico-inert”), are not as such to be found in the perceptual world, and do not yield to natural-scientific explanation. Once created – and they have all been created, by subjects like ourselves – they are passed on (or sometimes re-invented), elaborated, ramified, articulated and accumulated until they become the furniture of the human world, in all its richness. I mentioned earlier that the idiosyncrasies of lifeworlds may be brought under control by means other than cultural repression or indoctrination. But there are other ways of bringing our worlds into harmony with one another. Objects in them can be shared voluntarily, so that they

become *cointentional objects* (this is a much better way of accounting for common beliefs and practices than “intersubjectivity”) and can be worked up by what I call “mutual instruction under mutual criticism” to the point where the human sciences that deal with them are as rigorous and (relatively) objective as any natural science.

I claim for the human sciences in this sense some established (and no doubt reluctant) disciplines like mathematics and linguistics, as well as social and political theory from antiquity to the present and more recent developments like psychoanalysis and literary theory. I might also make the case for theology on the grounds that God is a concept human beings learn from one another, it being the case that the objects of the human sciences are all and only those that meet the “learnable from” test devised for cultural objects in a seminal article by Alan Ross Anderson and Omar Khayyam Moore.¹¹ What my account adds to theirs is (among other things) a clarification of *how* such objects exist, namely as intended contents of individual lifeworlds. The point to be emphasized in closing is that this mode of existence is adequate for their ontology, that we need not posit any other mode of being for the United States, or the English language (to return to the “preposterous” claim I referred to earlier), in order for them to have just the seemingly robust and objective status they have for us. The chief reason for this is that they are sustained by so very many subjects, so that from the point of view of any one of us they appear to be historically grounded and institutionally stable. The idea that each one of us actually contributes to their ontology seems extravagant. And of course any one of us is dispensable – and yet apart from subjects like us those objects would cease to exist. This underlines the necessity of continual instruction and deconstruction as a condition of the permanence of human worlds. They cannot stand by themselves, and will decay (sometimes very rapidly, as for example was demonstrated in 1989 by the collapse of the communist world) if individuals cease to sustain them. That is why it is so dangerous to assume, for example, that values have objective status, and so futile to lament their decline if we are doing nothing to ensure their perpetuation by instruction (or if we are doing nothing to prevent their being replaced by other values, instructed through other media).

The worlds the human sciences help to explain can be quite limited (the world of baseball) but also all-inclusive (the universe itself regarded as a shared object of human interest). It seems doubly extravagant to assume that the universe itself needs to be sustained by subjects – but it is an entry in our lifeworlds as an intentional object, one of those that, as remarked earlier, “is or could be encountered as perceptual [but] can be evoked as intentional in memory or imagination” (though what it would mean to encounter the universe as perceptual is a puzzle, unless that is what happens every time we open our eyes). So I end with what I call the “paradox of the universe.” My lifeworld occupies – of course! – only a small corner of the universe, regarded as the totality of what there is – but the universe, regarded as something I have learned from others (physicists, cosmologists) and cannot be thinking about all the time, occupies only a small corner of my lifeworld. The rest of it is occupied by all the other objects of my interest, from philosophy lectures to lunch to baseball.

References

- ¹ This is a misquotation, but rather than just correcting it (it's correct in the body of the text) I'll explain it. When I put this abstract together I had just been consulting Hegel's *Philosophy of Right*, where he says: "One word more about giving instructions as to what the world ought to be By philosophy's grey it cannot be rejuvenated but only understood" [G. W. F. Hegel, tr. T. K. Knox, *Hegel's Philosophy of Right* (Oxford: Clarendon Press, 1949), p. 13]. This seems to have led me to recast Marx's thought in Hegel's language – plausibly enough, in view of Marx's situation as Hegel's heir and critic.
- ² Peter Caws, "Physical universe, cultural worlds," *The Journal of Value Inquiry* 30, 4, December 1996, pp. 515-520.
- ³ Karl Marx, "Thesen über Feuerbach," in Karl Marx and Friedrich Engels, *Werke*, Band 3 (Berlin: Dietz Verlag, 1958), p. 535.
- ⁴ Wilhelm Dilthey, tr. Ramon J. Betanzos, *Introduction to the Human Sciences* (Detroit: Wayne State University Press, 1988), p. 78.
- ⁵ St. Augustine, tr. Rex Warner, *The Confessions* (New York: New American Library, 1963), pp. 217-219, 227 (Book X, chs. 8, 17).
- ⁶ Gaston Bachelard, "Univers et réalité," *Textes des communications du IIe Congrès des Sociétés de Philosophie* (Lyon: 1939), p. 63
- ⁷ Peter Caws, *Structuralism: A Philosophy for the Human Sciences* (Atlantic Highlands, N.J.: Humanities Press, 2nd ed. 1997), p. 1.
- ⁸ Ludwig Wittgenstein, tr. D. F. Pears and B. F. McGuinness, *Tractatus Logico-Philosophicus* (London: Routledge and Kegan Paul, 1961), p. 117.
- ⁹ Peter Caws, "Subjectivity in the Machine," *Journal for the Theory of Social Behavior* 18, 3, September 1988, pp. 291-308.
- ¹⁰ Caws, *Structuralism*, pp. 163ff.
- ¹¹ Alan Ross Anderson and Omar Khayyam Moore, "Modal Logics II: Towards a Formal Analysis of Cultural Objects," in Marx W. Wartofsky, ed., *Boston Studies in the Philosophy of Science*, [vol. 1] (Dordrecht: Reidel, 1963), pp. 131-132.