"Never Draw to an Inside Straight": On Everyday Knowledge

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On Everyday Knowledge

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I

What would the structure of everyday reason look like if we tried to teach it to an intelligent machine? Something like this: Richard Powers’s *Galatea 2.2* tells the story of a novelist, coincidentally also called “Richard Powers,” who returns to the United States after the breakdown of his marriage. He takes a fellowship at a midwestern university where he works as a kind of participant observer in the Center, a massively funded institute for the study of artificial intelligence. There he meets Lentz, a recognizable type of the mad scientist, with “freakish frontal lobes,” a “monstrous beak,” and an aversion both to natural light and to human contact. Lentz works with neural networks which mimic and perhaps reenact associative learning, and is training his current net to recognize beauty by playing it Mozart. With Powers as his research assistant he develops a project to build a neural network that will learn to interpret and comment on any text in the examination taken by Masters students in English for admission to Ph.D. candidacy; the test (a classic Turing test) will be taken in a blind competition with a real person.

The catch is that, in order to “understand” literary texts at this level of complexity, the network must understand everything: it must know not only the canonical texts of English literature, with their relevant contexts in other literatures, but all of the cultural encyclopaedia available to highly trained North American postgraduate students, as well as the encyclopaedia of human experience that underlies it, and it must have a detailed familiarity with the language, syntax, idioms, and conceptual and metaphorical logics in which these knowledges are formulated. One of the central genres in which the novel works is, accordingly, that of the treatise on learning, and specifically the study of child language acquisition. As the neural network develops through eight successive implementations, A to H, each of which incorporates the previous stage as a subsystem of an increasingly distributed and interdependent emergent system, the novel charts a progressive hierarchy of human knowledges from the formal to the very informal.
Thus Implementation A, which is fed massive vocabulary lists, learning to recognize words and to parse rudimentary syntax, fails just because of the power of its ability to recognize fixed verbal patterns: it learns and retains too much and, like Jorge Luis Borges’s Funes with his photographic memory of particulars, is therefore unable to move from data to generalization. Its successor, Implementation B, is taught how to forget, and moves from A’s pattern recognition to a form of computational linguistics which allows it to answer a riddling nursery rhyme (the one about the man going to St. Ives with seven wives), but to do so only because of its “unfailing literal-mindedness” (G 95). B can generalize to cases but cannot move from cases to rules; it is replaced by Implementation C, set up as a structure of parallel processing between distributed subsystems, which can generalize about its own generalizations but which opens up, by its shortcomings, a further dimension of knowledge acquisition. For it to understand a word like “ball” it must not only process an almost infinite number of predicates and exceptions, but it must compensate for its lack of referential and affective knowledge: its incomprehension of what a ball feels like in the hands and in relation to a human body. C cannot match its verbal knowledge with visual, haptic, and kinetic knowledges, nor can it understand objects as part of physical and social interaction with others, grounded in time and in complex structures of exchange.

One of the problems for any rule-based learning process is that, beyond the level of formal systems, interpretation is contextual and contexts are almost infinitely extensible. Implementations G and H try to come to terms with this problem by building in recursive structures that will allow them to train themselves, to develop rules for encountering new situations rather than seeking to apply preformed rules. Their higher-level systems model embedded miniatures of themselves which they test, correct, and reform. Version G could thus “converse among parts of its own net. That net had grown so complex in its positing that it could not gauge the consequences of any one of its hypothetical worlds without rebuilding that whole world and running it in ideational embryo” (G 157). It is with Implementation H, however, that the linkages between learning, sociality, and embodiment are most fully explored.

Implementation H is the first of the neural networks to have a name: she is called Helen, and she is also the entity which most crucially feels its lack of embodiment, with all the consequences this entails for semantic understanding. She “sorted nouns from verbs, but, disembodied, she did not know the difference between thing and process, except as they functioned in clauses” (G 195). This is to say that, whereas for humans conceptualization is rooted in bodily perception and precedes language, Helen must work back from words to the experience they
convey. “She had trouble with values, because she had no fear of self-preservation, no hierarchy of hard-wired pain. She had trouble with causality, because she had no low-level systems of motion perception from which the forms of causality are thought to percolate” (G 250); she “could neither feel nor gauge herself. Hungry-full; warm-cold; up-down: she worked these as abstract axes, not as absolutes of need” (G 243). She lacks, above all, the everyday knowledges that constitute the infrastructure of human understanding. This is partly the semantic problem that every definition has innumerable particular exceptions, as in the proposition that “all trees have green leaves at some time during the year unless the tree is a red maple or a saguaro or diseased or dormant or petrified or a seedling or recently visited by locusts or fire or malicious children or unless it is a family tree or a shoe tree or . . .” (G 249). But Helen’s ignorance extends well beyond this “to such things as corks stuck in bottles, the surface of a liquid reflection, the destruction of the more brittle of two colliding objects, wrappers and price tags, stepladders, up versus down, the effects of hunger. . . . I counted myself lucky if she could infer that a tied shoe was somehow more desirable than an untied one, provided the shoe was on, whatever tying, whatever shoes were” (G 230). In a culminating passage the novel emulates the encyclopaedic cultural lists that “Richard Powers” feeds to Helen: “We told her about parking tickets and two-for-one sales. About tuning forks and pitchforks and forked tongues and the road not taken. We told her about resistors and capacitors, baiters-and-switchers, alternating current, alternate lifestyles, very-large-scale integration and the failure of education to save society from itself” (G 247), and so on for another eight paragraphs of random facts and myths, of trivia, of social categories, of practical knowledges, of history, technology, medicine, cultural idioms and particularities, genres like the joke and the riddle, folk wisdom, “lint, lintels, lentils, Lent . . .” (G 248). I’ve attempted a rough classification of the categories into which this catalogue is ordered, as follows:

**LAW:** (parking tickets)

**COMMERCE:** institutions (the Securities and Exchange Commission, retail outlets); office culture (Post-its, letterhead); practices (two-for-one sales); regulation (registered trademarks, sales tax)

**TECHNOLOGY:** music (tuning forks, the layout of keys on the piano); electricity; detection and signalling devices; food technology (spoilage and refrigeration, plastic wraps)

**AGRICULTURE** (pitchforks)

**RELIGION:** the religious calendar (Lent); theology (grace)
Perhaps the most interesting items, however, are the ones which are particularly hard to classify: “parking tickets” are legal (or regulatory) sanctions applied to the realm of private transport and they carry connotations of imposed and resisted authority; “how the earth looks from space” is a fact of space travel but recalls particularly the generational experience of the first sight of the earth seen from an “impossible” perspective; “draft resistance” is a cultural and generational experience as much as it is a fact of politics; “baldness” is an anatomical (or perhaps tonsorial) fact which carries both a heavy cultural value and a weighted experience of the body; “a world where you hear about everything yet where nothing happens to you” half-jokingly generalizes an experience of the historical in the age of mass communication; “the South Sea bubble of cold fusion” combines a historical allusion with its use as a metaphor for a contemporary scientific controversy; and so on.

The point about the list of items fed to Helen is not so much that knowledge can be classified into distinct domains as that so many of these assorted bits of knowledge can be assigned to multiple domains,
and perhaps also that the catalogue as a whole promiscuously mixes “hard” knowledges with random cultural allusions and the gnomic wisdom that constitutes a cultural sensus communis. This is less a typology of knowledge, then, than a cross-section of knowledges as they enter into everyday experience, or rather into that experientially rational ordering of information that we call culture.

II

Galatea’s emphasis on the embodied, metaphorical, recursive, and heterogeneous nature of everyday reason corresponds to a number of other descriptions of the “practical reason” of everyday understanding. I take the concept of practical reason from Pierre Bourdieu, who also uses the concept of a “logic of practice” to designate the formal structure of an everyday dealing with the world which operates in time, and is therefore open-ended, based in uncertainty and strategic calculation; which is tactful, in that it works by constant adjustment to fluid interactions; which works with shared distributions of knowledge between a negotiable foreground and a background of commonsense assumptions; which depends upon a logic of analogy, and the forms of causality that flow from it; and which organizes its world by story rather than by syllogism.2 But I want to focus here on Agnes Heller’s account of everyday thinking, which more usefully (for my purposes) displays both the strengths and the dangers of such a formulation.

Heller understands the everyday by figuring human evolution as a historical dialectic of a loss of full humanity and its potential recovery in the form of the authentic, autonomous, self-conscious individual, representative of the historical class from which he originates, of the structural tendencies of the world which he embodies, and of the species-essence to whose objective development his consciousness corresponds. This figure of the authentic historical individual emerges from the background of everyday life, the defining characteristic of which (and of the masses who inhabit it) is its particularism: at once the lack of generality in its typical cognitive processes, and the lack of universality in the cramped lives which inhabit it. The everyday is the realm of an alienation from species-being expressed in class antagonism, private property, and the division of labor, and the politics of the everyday is that of a struggle to liberate the particularist masses into a realm of universality. If this framework now seems both dated and politically problematic, however, Heller’s conception of everyday modes of knowing is more interesting. Here, like Henri Lefebvre (for whom the everyday is a residual category of nonspecialized activity), she works with
an initial distinction between specialized knowledges capable of conceptual generalization and universality of application (scientific thought is the prototype, but this domain of thought “for-itself” also includes philosophy, art, and the various professional knowledges), and everyday knowledges (objectification “in-itself”) which are particularist, pragmatic, and grounded in the “facticity of the everyday” and in the coordination of and adaptation to heterogeneous forms of activity. Whereas everyday knowledges, or *intentio recta*, are tied to the immediacy of experience, specialized knowledges, or *intentio obliqua*, have “a content which cannot be formed by extrapolating from and organizing everyday thought, related as it is to everyday experience, and purifying it of its particularity, its fortuitous character and its particularistic anthropocentricity” (*EL* 50); rather, they move beyond experience to a self-contained sphere of the counter-intuitive. As we shall see, however, this dichotomy of the empirical and the transcendental does not exhaust the relation between these two modes of knowing.

What is interesting in Heller’s account is that, for all the naïveté of the opposition of a “good” universalism to a “bad” particularism, it does nevertheless make possible a description of the specific qualities of the latter which can then, in principle, be extended to the “specialized” knowledges in such a way as to undermine their privileged status. Of the various characteristics she ascribes to everyday thinking, let me isolate the following.

First, everyday appropriations of the world are inescapably anthropocentric. Heller identifies three modes of human-centeredness: the first, which she calls “anthropologicalness,” has to do with the experiential basis of everyday practice: for most of our practical purposes the sun rises and sets in relation to an earth which is flat. Counter-intuitive knowledge (for example, that a spherical earth rotates around the sun) is not (necessarily) excluded from everyday practice or disbelieved; it is merely not relevant to it (*EL* 50–51). The second she calls “anthropocentricity”: since the everyday is directly involved with the reproduction of the person, its teleology “is relative to, correlated with ‘the person’” (*EL* 51); everyday knowledge, we might say, takes place on and in relation to a human scale, and it is narrative in form. Third, everyday knowledge is anthropomorphic: it apprehends the world by analogy to the body, the person, and immediate social relations (*EL* 52). It is thus inherently mimetic, an imitation of action, behavior, and affect (Heller calls this “evocative imitation” (*EL* 172)). Note that for Heller anthropomorphism is implicitly equated with particularism, since it is possible to envisage everyday thinking free of anthropomorphism, but “only for individuals. . . . Where life is limited to the narrower circle of particularity, anthropomorphism in the narrower sense is a necessity. We may
succeed in achieving a degree of de-anthropomorphization in our narrower specialist capacities; but in everyday life we go on thinking in anthropomorphic terms, and this anthropomorphism may indeed be projected onto other spheres of reality, in so far as these do not overlap with our narrower specialist interests. Everyday thinking is heterogeneous; and de-anthropomorphized and anthropomorphic world-views and mental motifs mingle freely in undifferentiated fashion within its framework” (EL 53).

The second dimension of Heller’s description of everyday knowledge that I want to isolate is the principles of economy and repetition which structure it. These principles (the opposite of “inventive thinking”) are designed to make activity spontaneous and routine, and they are linked to the schematic organization of everyday thought. The schemata are rough guides to the processing of data and to translating it into action. They organize everyday thinking in terms of calculations of probability (EL 168), of intuition and “tact” (EL 132), of inference from analogy and precedent (EL 172–75), and of generalization on the basis of particular cases (EL 178–79). Everyday reason thus works by routine and formula and moves to generalization on the basis of a fuzzy logic of similarity and typicality: all this in contrast to the putatively more rigorous logic of the specialized knowledges.

A third dimension has to do with its pragmatic orientation. Again, we can understand this as an effect of the economical use of cognitive resources: everyday thinking is directed to the achievement of a task and minimizes theoretical reflection on process. This is not to say that theoretical reflection is absent: metalanguage always accompanies language in use and can be called on when needed for repair or problem-solving (EL 166–67). A further component of this pragmatic economy is the conventional delimitation of signification in relation to customary contexts of use—the activation of meaning only within typified enunciative situations which, again, are rarely available for theoretical scrutiny (EL 140–45).

Finally, Heller stresses the heterogeneity of everyday ways of knowing, a consequence of the heterogeneity of domains of activity and being which they must coordinate and by which they are shaped. But we could think of this as a matter not only of the diversity of spheres across which everyday knowledge moves, but also as a matter of the diversity of cognitive modalities that it incorporates. It is for this reason that Heller emphasizes that everyday life is not equivalent to Alfred Schutz’s “life world,” since it is not, as in Schutz, a single “natural” attitude but can include reflexivity (EL xi). More generally, this is why it is a relatively simple matter to refuse Heller’s idealization of scientific or philosophical thought as nonpragmatic, nonparticularist, absolute rather than
probabilist, and not shaped around tropes, prototypes, and schemata. It is not only the case, as Heller concedes, that specialized knowledges are constantly folded into the everyday, but that the modes of thinking that she takes to characterize the everyday equally permeate scientific or philosophical or technical rationalities.

III

The idea of a singular mode of everyday knowledge—a practical reason, a non- or prereflective thought, a schematized sensus communis—is at once a dangerous fantasy of otherness (a not-so-remote descendant of imperialist anthropology’s notion of a primitive mentality), and a heuristic for thinking about the relations between a plurality of domains and modalities of knowledge within the common space of a culture. Stripped of its essentialism, it has the potential to replace a hierarchical dichotomy with a dispersed array, whilst nevertheless allowing for a description of the processes by which hierarchy and essentialized difference become consolidated and authoritative.

Yet the prior category of the everyday is itself an unstable and difficult construct, which refers variously to a sphere of activity, a mode of temporality, or a mode of knowing or dealing with the world. Its very self-evidence makes it difficult to grasp theoretically. For Martin Heidegger it is coextensive with the category of temporality which grounds human being (“basically nothing other is meant by the term everydayness than temporality, and . . . temporality makes the being of Da-sein possible”), as well as being that domain of activity which is characterized by its “determinate lack of differentiation” or “averageness” (BT 41) and by the mode of Öffentlichkeit, publicness, which governs its inauthentic and depersonalized transactions (BT 119). For Lefebvre, le quotidien is at one level nothing but a residue, “‘what is left over’ after all distinct, superior, specialized, structured activities have been singled out by analysis”; more concretely, it is a historically specific philosophical concept designating “for and by philosophy the non-philosophical”; the content of this “non-philosophical” is “the entry of daily life into modernity,” and as “everydayness” (quotidienneté) it is characterized by “the homogeneous, the repetitive, the fragmentary in everyday life.” For Harry Harootunian it is “a minimal unity . . . that has organized the experience of modernity.” And for Maurice Blanchot, it is what “escapes,” prior to temporality and belonging to the realm of “insignificance” where it possesses neither “truth” nor “reality.”

Perhaps we could say simply that the everyday is one of the names of the experience of modernity, understood not as a process of change but
as a historically new mode of duration and as a primary social relationship to the generalized stranger. Heidegger thus understands everydayness not only as temporality but as the time of habit, of monotony, of the expectation of an “eternal yesterday” (BT 339). Articulated in gossip (Gerede), that mode of speech which sacrifices a grounding in the real for ready comprehensibility, it is thus “cut off from the primary and primordially genuine relations of being toward the world, toward Mitda-sein, toward being-in-itself” (BT 159). Distracted from its own (eigentlich) being in its subservience to others—those serial and disconnected others whom Heidegger calls das Man (“the they,” the indifferent mass of strangers)—Da-sein drifts toward alienation and inauthenticity (Uneigentlichkeit). Thus, in a passage inflected with the language of social critique, Heidegger writes:

In utilizing public transportation, in the use of information services such as the newspaper, every other is like the next. This being-with-one-another dissolves one’s own Da-sein completely into the kind of being of “the others” in such a way that the others, as distinguishable and explicit, disappear more and more. In this inconspicuousness and unascertainability, the they unfolds its true dictatorship. We enjoy ourselves and have fun the way they enjoy themselves. We read, see, and judge literature and art the way they see and judge. But we also withdraw from the “great mass” the way they withdraw, we find “shocking” what they find shocking. The they, which is nothing definite and which all are, though not as a sum, prescribes the kind of being of everydayness. (BT 119)

It is this haunting “they” which forms the “subject of everydayness” (BT 107), and this “they-self,” this “nobody to whom every Da-sein has always already surrendered itself” (BT 120), is to be distinguished from “the authentic self, the self which has explicitly grasped itself” (BT 121)—the reflexive self, that is to say, of philosophy, which has the capacity to “master the everyday in the Moment” (BT 339). Despite Heidegger’s caution that his analysis of everydayness “has a purely ontological intention and is far removed from any moralising critique of everyday Da-sein and from the aspirations of a ‘philosophy of culture’” (BT 156), his language here is precisely moralizing, framed within the normative dichotomies (loss and redemption, authenticity and alienation) that structure so much analysis of the category of modernity. The theological overtones of this language run through each occurrence of the analytic of the everyday in the twentieth century.

Of none is this more true than of the dialectical temporality posited and explored by Henri Lefebvre, where the everyday—that residue left after the division of social labor has fragmented the world into its “specialized, structured activities”—figures the tension between repetition and the event, and between “the cyclical [mode of repetition],
which dominates in nature, and the linear, which dominates in processes known as ‘rational.’” The everyday is in one sense thus “be-lated,” tied to the pre-historical, to the rhythms of biological reproduction, to women and to consumption (and the placing of women in this sphere of the nonhistorical, at once the victims and the embodiment of the everyday, is not the least of the political difficulties raised by Lefebvre’s work); in another, however, it represents that possibility of an inner, “utopian” transformation of alienation, banality, and repetition that is given in the very ambivalence of this residual, almost invisible domain. As it does for Heller, this ambivalence concerns the relation between “the ‘good,’ but unrealized universality of an historically produced species-being and the ‘bad,’ abstract but realized, universality of its alienated forms (money, the commodity, the state, etc.).” The everyday is a capitalist everyday, its rhythms those of the “linear” accumulation of capital, of the symbiotic structure of work and leisure, of urban life, and of the controlled rationality of organized consumption (ELM 60). What makes this temporality dialectical is the politics of transformation embedded in it, the “power concealed in everyday life’s apparent banality, a depth beneath its triviality, something extraordinary in its very ordinariness” (ELM 37). And what marks its belonging to a classically theological discourse of modernity is the narrative of grace, alienation, and redemption which structures its account of the loss of significant totality, the fall into repetition, and the promise of a future advent of a life again become meaningful. At the center of this narrative is the world we have lost, a world grounded in what Lefebvre calls “style,” which “gave significance to the slightest object, to actions and activities, to gestures” (ELM 38), a world in which “every complex ‘whole,’ from the smallest tool to the greatest works of art and learning . . . possessed a symbolic value linking them to meaning at its most vast: to divinity and humanity, power and wisdom, good and evil, happiness and misery, the perennial and the ephemeral. . . . Each object (an armchair just as much as a piece of clothing, a kitchen utensil as much as a house) was thus linked to some ‘style’ and therefore, as a work, contained while masking the larger functions and structures which were integral parts of its form” (EE 8). The lost world of “style” (or of the Festival, Lefebvre’s other great image of a unified culture) is a prefiguring of whatever disalienated future (or indeed whatever redeemed, epiphanic present) might emerge from the “alienated universality of modern social forms” (PT 193). A site of prrrefractive immediacy which nevertheless opens out onto the promise of a final self-recognition of humankind, the concept of the everyday reproduces in its structure that allegory of the emancipation of the reflexive intellectual from an alienating “mass” culture that runs
through all the great conservative “philosophies of culture” of the last two centuries.

IV

Both the power and the potential nebulosity of the concept of the everyday stem from its largely negative definition: it is understood as whatever is not philosophy or scientific rationality, not History in the sense of grand narrative, not the sacred, not the institutional, not formal or official or mass-mediated knowledge, not the strange or the exotic or the uncanny or the unfamiliar. But these acts of exclusion are only momentarily useful, since it turns out that the everyday is structured through and through precisely by its determinate relation to those exceptional categories. It is not possible to speak of the profane world, for example, without recognizing that the category makes sense only in relation to the concept of the sacred, which is not its indifferent other but an essential moment of its definition. The everyday both excludes the sacred, and includes it insofar as routine space/time is relative to the sacred or extraordinary “spots” of time and space that transcend and structure the profane world. Similarly, the category of the everyday designates an ordinary, repetitive, banal temporality, as opposed to a higher level of more significant, “historical,” exceptional events and structures with which it is nevertheless entwined. This folding of one term of an opposition back into the other is, I argue, definitive of the structure of the everyday, which can thus be thought as a series of transformations on the basis of initially exclusive binaries: if it excludes philosophy, the sacred, the mass media, war, History, it is nevertheless the familiarization and routinization of all of these things as well as their effect. It is a polysystem: devoid of content in itself, but the point of intersection for numerous forms of ordering.

In this sense, the concept of the everyday is neither redundant nor empty, because it defines a transformational process by which macro-structural categories are ongoingly translated into manageable structures of sense at human scale. I use the concept of human scale to refer, in the first place, to the sphere of person-to-person relations, and I call this sphere a “moral economy.” By “moral” I mean the forms of action and imagining that are structured by mores, customary ways of doing things, the mode of being that Hegel called Sittlichkeit; and by “economy” I mean to indicate the characteristic closure of this sphere. In accordance with the logic of folding that I outlined above, however, there are no unmediated person-to-person relations: the concept of the everyday must therefore have as its object the structures and processes through
which such relations are passed, the representational systems through which effects of immediacy are generated.

Moral economies are “ordinary” ways of knowing and understanding at particular times and places. Like the “universes of recognition” that Marc Augé describes as governing traditional societies, they are organized by the spatiotemporality of a centered cosmos; by a narrative logic; and by human or quasi-human actors. They are thus in principle quite different from scientific or philosophical knowledges, with their decentered cosmos, nonnarrative logics and nonhuman actors. But to accept at face value the existence of a singular mode of everyday knowledge is, as I indicated before, to run the danger of positing a phantasmatic unity. In order to avoid this danger I add two corollaries: first, that the logic of recognition persists into the post-traditional world, but that it is never a “pure” logic, since it is constantly informed by the “scientific” rationality to which it seems to be opposed; and second, that it underlies and informs those modes of rationality that believe themselves to have transcended it. The analytic work that follows from this is correspondingly double: on the one hand, an explication of the patterns of everyday knowing and acting as they are informed by the submerged logics of recognition; on the other, an analysis of the ways in which systematic bodies of formal knowledge such as law, economics, or psychiatry continue to draw upon and to be shaped by, but also to inform and to shape, sets of metaphors which refer to the experience of human embodiment in the world.

V

It is the experience of embodiment that is so crucially lacking in the process by which Helen, the neural network in Galatea 2.2, seeks to become idiomatic in the human culture of the late twentieth century. Yet it is important to be clear about what exactly it is that she lacks. In a perceptive essay on the novel, Katherine Hayles writes that “Rick refers to Helen as ‘disembodied,’ but this is of course true only from a human perspective. The problem that Helen confronts in learning human language is not that she is disembodied (a state no presence in the world can achieve!) but rather that her embodiment differs significantly from that of humans. There is nothing in her embodiment that corresponds to the bodily sensations encoded in human language. For her there is no ‘body in the mind,’ as Mark Johnson has called it, no schemas that reflect and correspond to her embodied experience in the world.” This passage is a part of Hayles’s larger argument against the platonic dream of a separation of information from material embodiment: “It
can be a shock,” she writes, “to remember that for information to exist, it must always be instantiated in a medium” (HWB 13). But instantiation is not the same as, or is not what we mean by, embodiment. The point about silicon-based information is that it can be transferred without loss of organization from instance to instance and from medium to medium: it is not tied to any one incarnation.

There are two points of comparison here with human embodiment. First, the body can itself be understood as an information system in which, or in relation to which, secondary information systems are embedded. Second, human consciousness can likewise be transferred from one medium to another, in the sense that thought can be materialized as writing in such a way that it extends beyond and is independent of the thinking body. What is distinctive about human embodiment is not the fact of instantiation but the nature of human learning: the emergence of concepts from bodily experience, and the fact that, as the narrator of Galatea puts it, “Human knowledge is social. More than stimulus-response. Knowing entails testing knowledge against others. Bumping up against them” (G 148).

Hayles notes the consequences in the novel for learning machines: since the posthuman Helen “does not have a body in anything like the human sense of the word,” she “approaches meaning from the opposite direction taken by humans,” for whom “incarnation precedes language. . . . Concepts about what it means to be an embodied creature must evolve for her out of linguistic signification” (HWB 263). She achieves at best what Lenz calls “functional equivalence.” But we can put this even more strongly: it is not just concepts about what it means to be an embodied creature that Helen struggles with, but conceptuality itself to the extent that all concepts emerge from the experience of embodiment. Hayles’s reference to Mark Johnson’s notion of the “body in the mind” is central here: Johnson and George Lakoff have argued through a series of books that the semantic primitives that underlie all human conceptualization correspond directly to the experience of spatially situated human bodies: metaphors of front and back, of spatial containers, of motion through space, of grasping and ingesting, and of the relation of one body to another form the substrate for all conceptual apprehension of the world.16 Human thought is at once contained and structured by the boundaries of the body and its relation to lived space.

The strategic logic of everyday practice has two dimensions: it reduces the multiplicity of real and virtual worlds to a manageably small number of narratives and actors; and it projects an embodied self at the center of this reduced world. It is the combination of these two moves that I call “human scale,” with the proviso that the notion of “embodiment” here has to do not with an empirical corporeality but with the imagined
boundaries of the self, and that the “human” refers less to an essence grounded in nature than to a phantasmatic coherence projected onto a social order. In the same way, the concrete immediacy, the taken-for-grantedness of the everyday (its quality of being looked past rather than directly seen) (ES 14) obscure its abstractness: its schematic structuring by “type, analogy and generality” (IE 29) and its heterogeneous fusion of very diverse modalities of knowledge, including the virtual worlds of film and television and song, of fiction and play, of gossip, of daydreaming and memory that saturate life lived from day to day.

VI

An inside straight is a set of four cards not of the same suit which, in poker, will form a sequence if a fifth card of a particular value is added (for example 4–5–7–8). The OED quotes Maurice Ellinger from 1934: “the odds against filling an inside straight flush are 3 to 1,” and George V. Higgins from 1977: “Never draw to an inside straight.” When “Richard Powers” teaches Helen “never to draw to an inside straight” (G 248) he is thus imparting a cautionary maxim, drawn from the accumulated wisdom of poker players, about the calculation of probabilities in a game of strategically managed chance. The word “straight” derives from the past participle of ME “strecchen,” to stretch, and means something like “extended at full length,” and then by extension “not crooked; free from curvature, bending, or angularity.” These core meanings probably derive from the model of the human arm at full stretch, and then give rise to a large and diverse number of secondary meanings. As a term within the largely informal field of knowledge about poker the word “straight” has lost any reference to the human body; but the game itself is still a way of organizing experience at human scale (it is a sequenced drama with a limited number of actors, normatively male, striving agonistically and ritualistically to achieve an outcome that produces winners and losers). The maxim about not drawing to an inside straight theorizes the odds within the framework of this game, but can be read at a more general level as a statement about probabilities beyond that framework. It is productively reductive and schematic in the same way that mathematical game theory is.

“Never draw to an inside straight” is an idiom, and “specialized” in the sense that it is not part of a general lexicon (I had to look it up, and I am still not entirely sure whether “draw to” means “take an additional card in the expectation of filling” an inside straight or, alternatively, “compete against”). It is an “everyday” term in the sense that it belongs to a folk wisdom rather than to the reflexive formal languages of science or
philosophy, and in that it works as a metaphor rather than simply as a literal statement. Yet the language of poker is, in another sense, just as specialized, just as much a technical jargon, as that of the “distinct, superior, specialized, structured activities” (CE 1:97) from which the everyday is abstracted. Its reason is cognate with theirs. There is, we might conclude, no everyday knowledge or reason which is different in kind from that of the fields of knowledge to which it is characteristically opposed. Far from being a domain of the nonspecialized and the unstructured, the everyday is that place where relations between a heterogeneous array of knowledges and reasons are worked out.

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NOTES
4 Lucien Lévy-Bruhl, Primitive Mentality, tr. Lilian A. Clare (Boston, 1923); The Notebooks on Primitive Mentality, tr. Peter Rivièere (Oxford, 1975).
15 N. Katherine Hayles, How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics (Chicago, 1999), p. 265; hereafter cited in text as HWB.