

**This is the accepted manuscript version of the following article: “On the Distinctively Human: Two Perspectives on the Evolution of Language and Conscious Mind” by Osmo Kivinen and Tero Piironen, *The Journal for the Theory of Social Behaviour* 42(1): 87–105, Copyright © 2011 Blackwell Publishing Ltd, which has been published in final form by Wiley-Blackwell at <https://doi.org/10.1111/j.1468-5914.2011.00479.x>**

**To cite the article, please refer to the published version.**

On the Distinctively Human:

Two Perspectives on the Evolution of Language and Conscious Mind

Osmo Kivinen & Tero Piironen

Research Unit for the Sociology of Education, RUSE

University of Turku

## ABSTRACT

In this paper, two alternative naturalistic standpoints on the relations between language, human consciousness and social life are contrasted. The first, dubbed “intrinsic naturalism,” is advocated among others by the realist philosopher John Searle; it starts with intrinsic intentionality and consciousness emerging from the brain, explains language as an outgrowth of consciousness and ends with institutional reality being created by language-use. That standpoint leans on what may be described as the standard interpretation of Darwinian evolution. The other type of naturalism, in contrast, making use of the concept of evolutionary niches, suggests that the search for the explanatory mechanisms of language and consciousness should begin with the human community (of social action), because that is the cultural niche for everything distinctively human to evolve, including language and human consciousness.

According to John Searle (1995, 2001, 2010), there is an urgent need for a new branch of philosophy, “Philosophy of Society,” which would consist of social ontology—meaning conceptual analysis of the logical structure of society, not traditional “metaphysical ontology” (Searle, 2010, pp. 3–6). Philosophy of Society would revolve around the trinity of human society, language and consciousness, trying to explicate the interrelations between them—or, as Searle (1998, p. ix) puts it, the logic of how they all hang together.<sup>1</sup> Searle’s explication of the logic of this trinity starts with the emergence of intrinsic intentionality and consciousness from the biological brain, explains language as a natural outgrowth of that consciousness, and concludes with the mechanisms of social institutions and “the foundation for all institutional ontology” being created by language-use (e.g., Searle, 2010, pp. 61–63).

In this paper we will scrutinize “intrinsic naturalism” as developed by Searle and other external realists such as Noam Chomsky, and contrast it with another type of naturalistic approach, one which leans heavily on a conception of evolution such that takes into account the variety of different and constantly diversifying ecological niches.<sup>2</sup> By the same token at issue here is the contrast between two methodological standpoints: subject–object dualism and methodological relationalism. We will focus specifically on the relationship between language and consciousness from a sociological angle; that relationship is a key philosophical theme in many intrinsic naturalistic accounts, but also an area of interest where a sociological version of niche-construction approach can be fruitfully applied.

## SEARLE'S ACCOUNT OF "HOW IT ALL HANGS TOGETHER"

Searle's explanation of how consciousness, language and society all relate to each other is a naturalistic endeavour such that honours "the Enlightenment vision" of external realism where the objective nature of the universe exists independently from our subjective minds but can be (partially) comprehended by those minds. So he wants to explain not just the trinity of consciousness, language and society, but also how it fits into the world at large (Searle, 1998, pp. ix, 4). According to Searle, first there was the physical universe, a small fraction of which was biological; next, intrinsic intentionality arose out of the biological matter; then language emerged, which Searle understands "as an extension of biologically basic, prelinguistic forms of intentionality"; and finally, people became able to construct a social world of institutions by means of language. That is, "the human reality is a natural outgrowth of more fundamental—physical, chemical, and biological—phenomena," and the Searlian explanation of it proceeds "from intentionality to language and then from language to social institutions." (Searle, 2010, p. 61.)

For Searle, then, intentionality (as "aboutness" toward external objects and states of affairs) and consciousness (in the sense of "subjective states of sentience and awareness") are intrinsic, prelinguistic phenomena produced by animal nervous systems (Searle, 2002, p. 61). Although Searle admits that he does not know exactly how the evolutionary history that led to language went, he nonetheless presents an overview of how it logically must have gone. It begins with "a race of hominids that have no language but have the full range of human prelinguistic intentional capacities." These hominids are

capable of “the full range of perception, memory, belief, desire, prior intentions, and intentions-in-action,” yet they lack language (Searle, 2010, p. 65).

Even without any systematic evolution-historical evidence to support his story, Searle is certain that it “is not a science fiction fantasy, because as far as we know there were early humans more or less like ourselves ... without language, and later they got language” (Searle, 2010, p. 65). He just takes it as a matter of logic that language must have been an extension of prelinguistic forms of intentionality (cf. Searle, 2010, pp. 61–71, 2006, pp. 1–3).

Language then paved the way to the world of institutions, but in this article we cannot go into the Searlian conception of institutions (see Kivinen, 2011) any more deeply than just stating that the basic gist of it is as follows. Along with language people became able to perform speech acts such as “Status Function Declarations” (usually of the form “X-counts-as-Y-in-context-C”), by means of which people created more and more elaborate social and institutional facts by saying that those facts exist: for Status Function Declarations not only tell us how the world is but also, and more importantly, thereby create reality, create social institutions, give rise to a whole “new deontology ... rights, duties, and obligations by performing and getting other people to accept certain sorts of speech acts” (see Searle, 2010, esp. pp. 11–12, 84–85, also 1995).<sup>3</sup>

As Searle’s (2010, pp. 61–63) logic of explanation goes straight from intrinsic intentionality to language and then from language to social institutions, presenting each step as “a natural outgrowth of” the one before it, he leaves the major transitions from consciousness to language and from language to institutions rather vague, offering little by way of explanation for why people started performing declarative speech acts in the

first place and why others were willing to accept those speech acts. Searle's naturalism is Darwinian, but only in the most elementary sense of non-teleological explanations which has it that "evolution occurs by way of blind, brute, natural forces"—the environment selecting from amongst random variation of features (Searle, 1995, p. 16).<sup>4</sup> Searle contents himself with this standard Darwinian basic framework of explanation in terms of blind and brute causal forces, and does not get into details about how and why the environment makes the selections it does; moreover, neither does he explain how the specific kind of environment that selected for the key human ability of language-use might have arisen.

But as a number of recent Darwinian thinkers have pointed out, proper evolutionary explanations require paying attention to how the actions of organisms changed their habitat so that it started favouring the new kinds of actions and features that we are trying to explain. These "coevolutionary" niche-construction theorists insist that all organisms, most notably human beings, tend to change their local environments in ways that change the selective pressures those environments exert on them, and that this has a lot of explanatory significance (e.g., Durham, 1991; Dennett, 1995; Odling-Smee, Laland & Feldman, 2003; Laland & Sterelny, 2006; Laland, Odling-Smee & Gilbert, 2008). This is particularly true of explaining the most distinctively human capacities such as language-use and cultural innovativeness, or indeed human consciousness, and many of the most recent niche-construction theories have been grappling specifically these issues (e.g., Bickerton, 2009; Buller, 2005; Clark, 2006, 2008; Deacon, 1997, 2003; Donald, 2001; Kendal, Tehrani & Odling-Smee, 2011; Laland, Odling-Smee & Myles, 2010; Richerson & Boyd, 2005; Sterelny, 2011).

Thus, according to the niche-construction theorists, taking the explanatory burden seriously means not settling for declarations such as “the environment selects” (the features best conformed to that environment). Since organisms are not just reactive but also truly active in their relationship with the local environment and often change it in their transactions with it, thereby also changing the circumstances where their own future adaptiveness will be weighed, the idea of evolution as simply a matter of the external reality selecting from amongst innate features does not hold up. (Laland et al., 2008, p. 555.)

In what comes to understanding the evolution of language, for instance, adopting a niche approach excludes the alternative of explaining language simply as a “natural” outgrowth of consciousness, because that explanation fails to take into account the (unique kind of) human community of action as a key factor in the socio-ecological niche where language evolved as the kind of tool of communication and coordination of actions that it is. The niche view therefore contrasts sharply with the intrinsic naturalism championed by Searle and others, most notably Noam Chomsky—the approach starting from inside the skull, from the innate mental capacities produced by the brains. And arguably the niche view is more truly Darwinian, whereas the Searlian way of viewing language as an outgrowth or extension of intrinsic mental life would seem to be more in accordance with the ancient vein of dualistic thinking that leads from Aristotle to Descartes, Locke and then to Chomsky, than with a genuinely Darwinian scheme (cf. Coulter, 2005, also 2010).

## ON LINGUISTIC EVOLUTION IN THE NICHE OF HUMAN COMMUNITY

Language has been dubbed “the greatest problem in science,” but perhaps that problematic may in fact be dissolved into empirically workable research questions by adopting an evolutionary perspective on language, one which appreciates the whole framework of human social history. The main question then is: what is the evolutionary function of language in the niche of human social life? (See Bickerton, 2009.)

From this standpoint, the explanation of language cannot simply be that it springs from innate consciousness, and thus there will be no need to try and find some specific threshold of brain complexity after which the complex enough brains become able to produce the “electrochemical sequences ... causally necessary and sufficient for consciousness” (cf. Searle, 2002, pp. 72–73). Nor do we need to suppose any such intermediary steps as that of internal “language of thought” having taken place—due perhaps to a “chance mutation,” or as an “automatic consequence of absolute brain size”—to pave the way for actual language (which would then be seen as an “externalization” of the language of thought) (cf. Chomsky, 2008, pp. 18–19; also Hauser, Chomsky & Fitch, 2002). As Terrence Deacon (2003, pp. 83–84) states, there would be no end to that Chomskian–Searlian “search for the proverbial ‘missing link’—that one bridge structure that allowed a primate species to become human, or ... allowed a mute and uncomprehending ape to become empowered with language.”<sup>5</sup> On the whole, it is high time to give up the “simple-reflection model,” the idea that cultures simply reflect the intrinsic capacities of the human mind, which in turn reflect genetic endowment. More likely the distinctively human abilities evolved only slowly in their



socio-ecological niches and thus never appeared like “a new and especially bright light being turned on in human minds by a sudden but subtle genetic shift in *sapiens* genomes”; so instead of aiming at pinpointing a crucial genetic difference between us and our ancestors, we should be interested in the ecological—both material and informational—niches that humans have transacted with during their mental evolution (Sterleny, 2011, pp. 813–814).

Indeed, the idea that language, or the human mental life, or our cognitive powers, should be viewed as straightforward consequences of increasing brain size, simply does not hold up to scrutiny (Deacon, 2003, p. 82); neither does the so-called “genetic trigger” hypothesis (Sterelny, 2011, pp. 818–819). A much more plausible standpoint leans on the idea of gene–culture coevolution (see, e.g., Durham, 1991); the coevolutionary dynamics of human organisms living and acting in their (socio-cultural) ecological niches must have been of considerable importance in developments such as the evolution of language (e.g., Kendal et al., 2011, p. 788).

As language evolved, it turned out to be the difference that makes the difference for this one species: it created a whole new symbolic environment and thereby opened up altogether new possibilities of action for humans. But this did not happen all of a sudden, there never was any linguistic Big Bang based on a single genetic mutation. Rather, research into the history of linguistic evolution now suggests that there were likely many significant chains of events going on in an environmental niche favorable to proto-language and then to language, for a period of at least a few hundred thousand—perhaps even couple million—years. (See, e.g., Deacon, 1997; Lieberman, 1998; Bickerton, 2009.) Together these chains of events must have created very unique socio-ecological

circumstances, because no other species has come even close to evolving anything like the human linguistic skills: as Deacon (1997, pp. 28–34) points out, there is no scale of more or less elaborated languages in the nature, language is very much an either-or matter, a dramatic anomaly in nature.

What, then, might have been the special features of the ecological niche where hominids took their first steps in making use of language (or, in the very beginning, of a handful of crude proto-symbols)?<sup>6</sup> Unfortunately, there is no way to tell that for certain, because there is scarcely any direct evidence of the origins of language. But the experts of human evolution have proposed good educated guesses, which have in common the idea that (proto-)language must have been crucial for the subsistence of some human community at some point in time. According to Bickerton, for instance, the early hominids, living in a savanna with not too plenty of food lying around, found a way to live in their niche by means of “power scavenging.” That environment of scarce food resources required them to be quick in locating and charging to the dead or dying “megabeasts” (animals big enough to offer meat for the whole tribe for several days), as well as to have the strength in numbers so as to drive away any competition, other carnivores from the carcass. In this niche it would have been very useful to be able to refer to a dead megabeast when it was not actually in sight, so as to inform others of this food source; this might have been done at first simply by imitating the animal and pointing to its direction. So it is conceivable that this sort of proto-terminology turned out crucially beneficial for some such group of our ancestors, offering them the means to mobilize the members of the tribe and get them to the carcass fast enough to defend it against other scavengers. (Bickerton, 2009, pp. 157–168.)

Some such rather urgent need to communicate and coordinate actions vital for survival must have been a crucial feature of the niche that enticed language to evolve: the birth of language would not have been possible had there not been a niche with selective pressures such that made the first proto-symbols extremely useful right from the beginning (Bickerton, 2009, p. 165). Only early humans faced such problems of communication and coordination solvable by proto-linguistic and then linguistic tools. So the explanation for why other animals never evolved into language users is not that their brains were too small or insufficiently complex, or that they lacked some genetically based language module; rather, “bottom line, they didn’t need language” in their niches (Bickerton, 2009, p. 24).

The power scavenging account is one good example of how one might describe the ecological niche where our ancestors first started using proto-language, but it certainly need not be taken as the only, or the best possible account; indeed, there may be more than one significant aspect of that niche to be described (cf. Arbib, 2011).<sup>7</sup> Other possible hypotheses of the relevant forms of social action include the need to assign exclusive sexual relationships—i.e. early forms of marriage (Deacon, 1997, pp. 385 ff.)—and the apprenticeship-like teaching and learning of tool-making peculiar to us humans (cf. Sterelny, 2011). Or there may have been some other kind of pressing communicative needs. Be that as it may, the point remains: “in evolution, the niche will tell you what to do” (Bickerton, 2009, p. 161).

Brains burn up a lot of energy and nature is very conservative in not wasting any, so even if the bigger and more complex brains were a factor in language evolution, they too need a niche explanation. “Brains don’t grow by themselves, of their own volition,”

Bickerton (2009, p. 34) remarks: they grow only if animals need bigger brains to more effectively carry out the new things they have already begun to do.<sup>8</sup> So against this backdrop to follow the Chomskian–Searlian line of theorizing in placing the brain evolution before language evolution would be just a case of putting the cart in front of the horse (Deacon, 1997, pp. 44, 102 ff.).

By the same token, another decisive difference between intrinsic naturalists and our own position is highlighted—one concerning what language is conceived to be all about. Thinking in a pragmatist vein, we conceive language first and foremost as a tool of communication and coordination of actions (see Kivinen & Piirinen, 2007, 106 ff.), whereas Chomsky (2002, pp. 76, 79, 86), for one, explicitly denies this interpretation and insists that language should be thought of as primarily a channel for voicing one’s thoughts.

Views similar to that of Chomsky’s were in fact criticized by the pragmatist John Dewey already before Chomsky was born, for making language as superficial to one’s thoughts as a pipe is to the water running through it (Dewey, [1925] LW 1: p. 134). According to Dewey, language evolved “out of unintelligent babblings, instinctive motions called gestures, and the pressure of circumstance”—but it did not evolve to enable people to speak of the contents of their intrinsic consciousness. Language grew out of action-related needs and started to modify and redirect those needs, thereby opening up a whole new world of possibilities for language-users. (Dewey, MW 14: p. 57.) Most crucially, language is indeed primarily a tool for people to communicate and coordinate their actions in a community, one which thereby greatly enhances many of our transactions with the environment, an important part of which are the social communities

we belong to and their practices—people doing things and interacting with each other. As Dewey (LW 1: p. 145) put it: words and sentences are learned in a community of language-users and a given noise becomes “a *word* ... [only] when its use establishes a genuine community of action” (cf. also, e.g., Deacon, 1997, p. 63; Bickerton, 2009, 43 ff.)

A radically different view to the relationship between language and (conscious) thought needs to be taken from that of intrinsic naturalists, then. Whereas Chomsky believes that thinking must have come first, that it made language possible, a niche-construction approach puts things the other way round: it was language that enabled conscious thought; for eventually language evolved into such a rich system of symbols that it enabled our species to become consciously aware of our own experiences, to communicate to ourselves as well as to others what we are conscious of. (See Dewey, LW 1: pp. 134–135, 198; also, e.g., Bickerton, 2009, pp. 169 ff.)<sup>9</sup>

## ON STUDYING CONSCIOUSNESS IN SOCIAL SCIENCES

According to Searle (2002), understanding how consciousness works would be “the most important scientific discovery of the present era” (p. 18). We have no wish to dispute this (over)statement as such, but our take on the issue of how consciousness might best be approached scientifically is just about the very opposite of Searle’s. Of course, there can be no pretense here of “solving the problem of consciousness,” rather, we content ourselves with just showing how some of the obstacles to understanding

consciousness might be removed from an evolutionary perspective appreciative of socio-ecological niches—as opposed to the intrinsic naturalists’ perspective where consciousness springs from the brain. To put it plainly, we suggest understanding consciousness more “from the outside in” (in the network of social action and language-using community) than “inside out.”

This is a methodological point, not a metaphysical proposition, let us emphasize. In so far as we understand it, the appropriate way to investigate consciousness (or, awareness) social scientifically is to study it as manifested in its exercise, operationalizing it into actions that can be communicated symbolically—behaviour described, explained and predicted by means of mental vocabulary, from “the intentional stance,” to make use of Daniel Dennett’s (1987) terminology. But we have no idea of how one could investigate Searlian intrinsic consciousness social scientifically, as something detached from behaviour and independent of language-use.

Searle does not accept Dennett’s interpretation of intentionality in terms of the intentional stance, because his own concept of intrinsic—ontologically real—intentionality means “the real thing as opposed to the mere appearance of the thing,” and he takes mental vocabulary very “literally as referring to real, intrinsic, subjective, psychological phenomena.” This would imply that the idea of mere intentional stance is all too empty. Indeed, Searle finds it incredible that Dennett and others think of mental vocabulary not “as actually standing for intrinsically mental phenomena, but rather as just ... a useful vocabulary for explaining and predicting behaviour.” (Searle, 1992, pp. 7, 80.) He is adamant about keeping intentionality and consciousness separate from behaviour: consciousness and mental processes cause externally observable behaviour, but

“[o]ntologically speaking, behaviour, functional role, and causal relations are irrelevant to the existence of conscious mental phenomena”; the latter can exist and have all of their essential properties quite independently of any behaviour (Searle, 1992, pp. 65–69).

Now that sort of dichotomy is just antithetical to the approach to consciousness advanced herein, because we avoid all dualisms between the “internal” and “external,” the “mind” and its “environment,” and indeed “consciousness” and “behaviour.”<sup>10</sup> Intentionality and consciousness are studied as intertwined with the world of action and behaviour—as sophisticated linguistic tools by means of which humans try and cope with their environments. They enable us to know that things are thus or so and help us to make our way in the world, but they also involve the world, so it is no good to conceptualize these tools in the Searlian way, as if the intrinsic mind simply reflected upon distinct worldly objects.<sup>11</sup> Awareness, conscious mind is always inseparably in the world and in effect merges us with our environment; consciousness and knowing the world take place in organism–environment transactions, involving the whole situation—communities and symbols, tools and skills, practices and habits, and crucially also particular kinds of learning environments, for instance apprentice-like arrangements (see Clark, 2006, 2008; Sterelny, 2007, 2011; Noë, 2009; Jeffares, 2010; Csibra & Gergely, 2011).

Defending his intrinsic naturalism, Searle (1992, p. 1) says mental events are just as natural as digestion. Up to a point we can agree, but the question is: how to understand “natural”? For us neither mental life nor digestion is anything intrinsically or innately natural, they both depend heavily on what Searle thinks is too “external” to be involved, and naturalness is in the continuously intertwining processes of organism–environment transactions. Food is food only to the extent that an organism can digest it and find it

nourishing; and in the human case it can be argued that a considerable part of (the evolution of) our digestive system and ultimately indeed the evolution of our very humanity has depended very much on what has been going on outside any given human body—it has depended on the methods of processing food before eating it, most crucially on the domestication of fire, which led to cooking and hence enabled new kinds of diets (Wrangham, 2001). In fact, the development of genetic lactase tolerance in the cultural niches where people have exploited dairy products (see Durham, 1991, pp. 226–285) is one of the most well-worn examples of gene–culture coevolution. So digestion just as consciousness involves an environmental niche.

A standpoint more or less opposite to the Searlian dualism, a standpoint overcoming his deep dichotomy between subjective mind and objective world, has recently been advocated by writers such as Alva Noë (2004, 2009) and Andy Clark (2006, 2008), among others; they speak of “externalizing” or “supersizing” the mind. And some writers, like Kim Sterelny (2007, 2010, 2011), emphasize that the mind needs so much “scaffolding” from the physical and social niche humans have been constructing generation after generation that the idea of innateness is not very useful when we speak of the evolution of mind and other distinctively human capacities: “Many important cognitive capacities ... exist only in environments in which they are supported ... [and therefore] often depend on cultural resources that amplify learning capacities” (Sterelny, 2011, p. 813). Indeed, today there are quite a few thinkers who understand that the human mind is so tightly tied to its environment via (trans)actions that, as Hilary Putnam puts it (in a Jamesian vein), the mind “is not [to be thought of as] a thing; talk of our minds is



talk of world-involving capabilities that we have and activities that we engage in” (Putnam, 1999, pp. 169–170, emphases omitted; cf. also Pihlström, 2007).

Thus it does not make much sense to try and find some specific innate trigger, like a genetic pulse, as an explanation of human cognitive capacities. In fact, as Sterelny (2011) argues, any genetic-switch hypothesis must run into problems when accounting for the actual archaeological data, because it would predict a clear qualitative step forward at one specific point in the history of *Homo sapiens* and then just unidirectional increase in our capacity to make use of cognitive powers once the crucial gene had spread through population, but there is no such increase to be found in the archaeological record: “behavioural modernity appears to arrive gradually”; there have been losses as well as gains detectable in the record, signs of intelligence and innovation appearing, disappearing, then returning again sporadically and periodically (pp. 818–819).

These capacities evolved slowly in processes that also gradually changed the environments people lived in; and one of the most important common denominators for those evolutionary contexts, right from the beginning of the species *H. sapiens* at least, has been that they are symbolic environments. We think this must have been an essential part of those “high fidelity, high bandwidth social [apprentice-like] learning” situations that Sterelny (2011, e.g., pp. 810, 814) says were necessary for the human behavioural modernity, which depended on our ancestors’ ability to control and pass on to succeeding generations vital information about the environment.

Sterelny himself does not emphasize the role of symbol systems all that much in this connection, it needs to be said. Rather, he highlights the importance of embodied knowing-how and its social learning-by-doing (which may or may not be helped by

linguistic instructions). Here Sterelny is in fact close to Dewey's pragmatism, though he does not identify himself as a pragmatist. Now, learning by doing is certainly vitally important: like all organisms, people still usually just act without thinking about it—we have always been “doers” first, and language-enabled thought is best conceived of as the servant of behaviour, not the other way round (see Dewey, MW 14; Mead, 1934; also, e.g., Kivinen & Piironen, 2007, pp. 105–106; Franks, 2010, p. 87). But the most distinctively human feature—what distinguishes us from all other animals—is that whenever we face a problem that stops our smooth flow of actions we can formulate the problem and treat it in terms of symbol systems, which enable us to search for very elaborate causes and effects, complicated mechanisms relevant to the case at hand, and often to thereby solve the problem so that the flow of habitual actions can be resumed. A beaver can build a dam (and this is indeed one of the most well-worn examples of niche construction), but as it has no language or other symbol systems, no linguistic awareness, it does not plan dams consciously. Consequently, the dams beavers build have not evolved much over the millennia. People, on the other hand, although they also lean very much on their embodied, habitual knowing-how to do things, can deliberate and think about dams and other things consciously, too, can work things out by means of symbol systems and thereby solve more complex problems. Accordingly, they have been able to develop a great variety of different sorts of dams for different practical purposes. Most crucially, this is because people have constructed this cognitive super-niche of language for themselves, which allows them to keep on constructing ever new, more and more intricate cognitive niches (see also Clark, 2006, p. 372).

Now although Searle today, defending his Social Philosophy against a critic in *The New York Review of Books*, says he appreciates that there can be no complex (institutions-involving) thinking without language (Searle, 2011a), his long-standing belief in the supremacy of intrinsic naturalism really has left him no choice but to conclude that writers such as Donald Davidson (1985) and Richard Rorty (1999) are mistaken in their assumption that there is no conscious thought without language: according to Searle (2010, p. 61, see also 2006, pp. 2–3), they are making both a philosophical mistake and “bad biology.” For Searle is convinced that any animals with biological make-up relatively similar to ours must have conscious experiences structured by prelinguistic metaphysical categories (Searle, 2010, p. 68).

But we hold the opposite view that Davidson and Rorty are just cultivating some of the best lessons of pragmatism taught also by such classics as Dewey and Mead, who argued that there is no mental life or recognizable consciousness before language and other systems of symbols, by means of which alone meanings can be fixed and communicated (cf. also Goudge, 1973, pp. 133, 137–138). For us who want to operationalize the mind into action and study it in its exercise, it makes sense to join with Dewey, who emphasized that there is no “so-called merely ‘mental’ activity or result that cannot be described in the objective terms of an organic activity modified and directed by symbols-meaning, or language, in its broad sense” (Dewey, LW 12: p. 63 note). Of course, an active and complex enough animal feels pain and comfort, so it can be said to have these sorts of feelings, but that does not indicate conscious mental states, because those animals only “*have* them, but they do not know they have them” (Dewey, LW 1: p. 198). Adapting Wilfrid Sellars (1956), then, we can say that awareness is a linguistic

affair; and so it is also a social affair, tied to the communities of language-users, to the practices of those communities, as Wittgensteinians and pragmatists alike emphasize.<sup>12</sup>

From our pragmatist point of view it is easy to subscribe to Merlin Donald's (2001) and David Buller's (2005) criticism of the fallacy of "hard-nosed" evolutionary psychology—of the assumption that the essentials of the human mind go back to the Pleistocene era (cf. Tooby & Cosmides, 1992; Pinker, 1997, 2002). As Donald (2001, p. 315) puts it: "The main difference between apes and us is culture, or more specifically symbolic culture, which is largely outside, not inside, the brain box" (see also, e.g., Clark, 2006, 2008; Richerson & Boyd, 2005; cf. Sterelny, 2011). In contrast, as Searle holds on to the idea of intrinsic consciousness connecting modern humans with their prelinguistic ancestors, he cannot join us in this view; his intrinsic intentionality allows the skull bone to serve as the crucial divide between innate consciousness and behaviour in the external world, and this prevents him from embracing the concept of consciousness as a thoroughly socio-cultural issue tied to the practices of language-using communities.

## NICHE CONSTRUCTION AND PRAGMATIST METHODOLOGICAL RELATIONALISM

Overcoming the strict mind–world dualism opens the human mind up methodologically to empirical, social scientific inquiry. Of course, the brain plays an important part in our thinking, but in what comes to the contents of linguistic consciousness, there is nothing very interesting to be found under the skull. The contents

of a conscious mind are not the same as the physical brain, and actually consciousness does not even “happen” (solely) in the brain: it is a matter of organism–environment transactions more broadly. (See, e.g., Dewey, MW 14, LW 1; Coulter, 1979, 1999; Kivinen & Piironen, 2007; Noë, 2009.) That is, as both consciousness and the experienced world are what they are only due to our active transactions with the environment, they are not “made in the brain or by the brain”; rather, all content of thought, all meaning is produced in our habitual, (trans)active involvement with the world, and so meaningfulness cannot be intrinsic or internal, meaning is relational (Noë, 2009, p. 164). Words gain meanings relationally within networks of words, in language-using practices, with respect to the ways they are used and for what purposes, and these are always entangled with a variety of activities, so language is relational through and through and anything that we can think about is necessarily relational to other things (Kivinen & Piironen, 2007, p. 100). Take the concept of a chair, for instance. Knowing what that word means involves knowing how to relate this concept to other concepts like sitting, legs, or furniture, in a variety of different contexts (Coulter, 1979, p. 2; Dewey, LW 1: pp. 240–241; Rorty, 1999, pp. 52–66), and this is all intertwined with our embodied knowing-how to use chairs.

Appreciating this relationality and determined to avoid all dualisms or philosophical dichotomies inherent in intrinsic naturalism, it befits pragmatists to adopt the standpoint of methodological relationalism (Kivinen & Piironen, 2004, 2006). It goes nicely together with the idea of niche construction, whereas non-relational, dichotomous thinking stands in the way of understanding how the development of organisms in their environment and the developments of those environments produced by organisms are

both evolutionarily consequential and also intertwined and dependent on each other; “dichotomous thinking is undermined by niche construction” (Laland et al., 2008, p. 553). Opposite to non-dichotomous methodological relationalism, then, stands intrinsic naturalism. As a self-proclaimed defender of the “Enlightenment vision” (Searle, 1998, p. 4) and “Western Rationalistic Tradition” (Searle, 1993), both of which he identifies with external realism, Searle starts with subject–object dualism where the intrinsic mental states inside the subject’s skull must try and reflect upon how the external object world lies. But from a pragmatist, anti-dualistic point of view, the whole philosophical problematic of “how the mind can be in touch with the external reality” is methodologically irrelevant: we say that all living organisms are already in the world, engaged in transactions with it, coping with the rest of the nature as well as they can, and language and language-enabled consciousness are just some of our fanciest tools we make use of in these transactions, in coping with the environment (Dewey, LW 1: e.g. pp. 211–225; Rorty, 1999, e.g. pp. xxiii, 23 ff.; see also Kivinen & Piironen, 2007; Noë, 2009).

The American pragmatism of the late 19<sup>th</sup> and early 20<sup>th</sup> century took place in the wake of Darwin’s work and is Darwinian through and through. Robert Brandom (2004), for instance, takes it to have been so revolutionary that he even dubs it “the Second Enlightenment.” Pragmatist thinking starts with living organisms coping with their (often hostile) environment in organism–environment transactions, in which both the organisms and their environment are constantly changing. These transactions are much tighter than mere interactions of separate, self-sufficient agents: in transactions organisms are always completely dependent on their environment and also the environment is what it is, as

environment, only in transactions, and will be changed in the process (see Dewey, [1938] LW 12: pp. 30-47; Dewey & Bentley, [1949] 1991, pp. 100 ff.). All life, and therefore also all human life, is thus in the end explicable by appeal to the evolutionary mechanisms whereby settled habits take form from amidst random variation. These relatively stable habits of action, as locally and temporally useful adaptations, evolve through statistical selection processes, and some relatively complex ones we might conceive of as intelligent habits and procedures. This implies the mind need not and indeed should not be thought of as something separate from the rest of the world. Knowing and understanding can be conceived as kinds of doing that also serve as tools for other kinds of doings and will therefore always be weighed in action, in solving or failing to solve (adaptive) problems.<sup>13</sup> Thus, no Darwinian adaptation is final: they change in response to changing circumstances. (Brandom, 2004, pp. 3–5; see Dewey, MW 14; also, e.g., Rorty, 1999.)

This brings us to the idea of niche construction. Although Dewey did not use this term, the basic idea is quite evident when he says:

[A]t least in the more complex organisms, the activity of search involves modification of the old environment, if only by a change in the connection of the organism with it. Ability to make and retain a changed mode of adaptation in response to new conditions is the source of that more extensive development called organic evolution. Of human organisms it is especially true that activities carried on for satisfying needs so change the environment that new needs arise

which demand still further change in the activities of the organism by which they are satisfied; and so on in potentially endless chain. (Dewey, LW 12: 35.)

There are no universal adaptations to the world at large; organisms must transact with their environment—take energy from it, use that energy in actions, and emit waste products, just to begin with—so they also change that environment in the process and often thereby change the natural selection pressures they and other organisms encounter in that environment; this was grasped by Dewey (see LW 12: 32–42, also, e.g., MW 14) as well as by present-day niche-construction theorists (e.g., Odling-Smee et al., 2003, pp. 1 ff., 40 ff.).

This vein of thinking goes together with sociological work such that is likewise based on a non-dualistic understanding of actors' acting in their environment and conceives social structures as at the same time both the context and the consequence of what people do (see Kendal et al., 2011, p. 790). This sort of standpoint helps us avoid the problems involved in the Searle's concept of collective intentionality, which comes down to nothing but separate minds inside the individuals' heads sharing in "a psychological primitive," which Searle calls "we-intentions" (so that "the basic [social] ontology is that of individual human organisms and their mental states") (Searle, 1997b, p. 449).<sup>14</sup> He therefore stumbles here on the Enlightenment philosophers' subject-object threshold, which could be avoided by rejecting the dualistic vision and adopting instead a transaction view of the relationship between subject and object, one compatible with the niche-construction and mind-externalizing approach. That latter approach also makes perfect sense of collective intentionality: people's minds entangle with their environment



all the time, especially with their symbolic and social environment, so there is no mystery about minds sometimes conjoining in intention. In contrast, devoid of any conception of social self, Searle's theory is in fact profoundly unsociological; locating all forms of intentionality, collective intentionality included, inside the heads of individuals, he effectively leaves out a major logical precondition of collective intentionality, the actual interactions of people (Hund, 1998, pp. 127–130). The common denominator behind these problems is that Searle lacks a sociologically satisfying theory of action.

As for Dewey (see esp. MW 14), he made good use of the pragmatist concept of a habit—as a social psychological concept that ties together people and their social lives in communities rich with customs so that there are no two separate realms of “the individual” and “the society.” Accordingly, there is no problem, no philosophical mystery of how they are to be connected. For the Deweyans, human beings are social beings who necessarily live their lives and learn their habits in communities, whereas Searlian philosophy, due to the lack of proper conception of (social) action, is stuck with the Cartesian dichotomy of a subject's mind causing actions in the objective world separate from that mind.<sup>15</sup> The problem could be solved by giving up both the dualism of subject–object and that of brute individuals and social reality as two qualitatively distinct ontological realms, and employing instead a more pragmatist theory of action where it all comes down to organisms' continuous transactions with their environmental niche, which in the human case includes the social community of language-users and thereby actually socializes individuals through their habits.

Overcoming the subject–object or mind–world dualism means getting rid of the starting point of innate intrinsic consciousness. Symbolic forms of communication and

human consciousness are necessarily intertwined in the evolutionary history of humanity, and both can be satisfactorily understood only in the context of social life in communities. This kind of understanding opens up consciousness for sociological research operationalizing awareness into something manifest in its exercise, in the symbolically contextualized human actions. A radically different view to the relationship between language and (conscious) thought needs to be taken from that of intrinsic naturalists. Whereas Searle, Chomsky and other intrinsic naturalists are convinced that thinking must have come first, that it was thinking that at some point made language possible, this paper, utilizing pragmatist and niche-construction approaches, puts things the other way round, maintaining that it was language that came first and enabled conscious thought by enabling human beings to communicate also to themselves what it was that they were conscious of. Perhaps the old *cogito* argument could be rephrased: *Communico, ergo cogito.*

*Osmo Kivinen & Tero Piironen*

*Research Unit for the Sociology of Education, RUSE*

*Hämeenkatu 1*

*FIN-20014 University of Turku*

*Finland*

*oskivi@utu.fi*

## REFERENCES

- Arbib, M. (2011). Niche construction and the evolution of language: Was territory scavenging the one key factor? *Interaction Studies*, 12, 162–193.
- Becker, H. S. (2010). Review of John Searle, making the social world, and Paul Boghossian, fear of knowledge. *Science, Technology and Human Values*. On-line 14 Nov. Available also at <http://home.earthlink.net/~hsbecker/articles/searle.html>
- Bickerton, D. (2009). *Adam's tongue: How humans made language, how language made humans*. New York: Hill and Wang.
- Blackburn, S. (2010). Whatever you say. A review of making the social world, by John Searle. *The New Republic*, 12 July. <http://www.tnr.com/book/review/whatever-you-say>
- Brandom, R. B. (2004). The pragmatist enlightenment (and its problematic semantics). *European Journal of Philosophy*, 12, 1–16.
- Buller, D. J. (2005). *Adapting minds: Evolutionary psychology and the persistent quest for human nature*. Cambridge, MA and London: The MIT Press.
- Bühler, A. (2010). Book review: John Searle, making the social world. *Rationality, Markets and Morals: Studies at the Intersection of Philosophy and Economics (RMM)*, 1, 12–15. <http://www.rmm-journal.de/htdocs/volume1.html>
- Chomsky, N. (2002). *On nature and language*. Cambridge: Cambridge University Press.
- Chomsky, N. (2008). Biolinguistic explorations: Design, development, evolution. *International Journal of Philosophical Studies*, 15, 1–21.
- Clark, A. (2006). "Language, embodiment, and the cognitive niche." *Trends in Cognitive Science*, 10, 370–374

- Clark, A. (2008) *Supersizing the mind: Embodiment, action and cognitive extension*. New York: Oxford University Press. The electronic version accessed through the Oxford Scholarship Online™ in May and June 2011, URL = <http://www.oxfordscholarship.com/oso/public/content/philosophy/9780195333213/toc.html>
- Coulter, J. (1979). *The social construction of mind: Studies in ethnomethodology and linguistic philosophy*. London and Basingstoke: Macmillan.
- Coulter, J. (1999). Discourse and mind. *Human Studies*, 22, 163–181.
- Coulter, J. (2005). Language without mind. In Molder & Potter (Eds.) *Conversation and cognition* (pp. 79–92). Cambridge: Cambridge University Press.
- Coulter, J. (2010). Reflections on the “Darwin-Descartes” problem. *Journal for the Theory of Social Behaviour*, 40, 274–288.
- Csibra, G. & Gergely, G. (2011). Natural pedagogy as evolutionary adaptation. *Philosophical Transactions of the Royal Society B*, in press.
- Darwin, C. (1874). *The descent of man: And selection in relation to sex*. 2<sup>nd</sup> Edition. New York: Hurst & Company.
- Davidson, D. (1985). Rational animals. In LePore & McLaughlin (Eds.) *Actions and events: Perspectives on the philosophy of Donald Davidson* (pp.473–480). Oxford and New York: Basil Blackwell.
- Davidson, D. (1991). Three varieties of knowledge. In Griffiths (Ed.), *A. J. Ayer. Memorial essays*. (pp. 153–166). Cambridge: Cambridge University Press.
- Deacon, T. (1997). *The symbolic species: The co-evolution of language and the brain*. London and New York: Penguin Books.

- Deacon, T. (2003). Multilevel selection in a complex adaptive system: The problem of language origins. In B. H. Weber & D. J. Depew (Eds.) *Evolution and learning: The Baldwin effect reconsidered* (pp. 81–106). Cambridge, MA and London: The MIT Press.
- Dennett, D. C. (1987). *The intentional stance*. Cambridge, MA and London: The MIT Press.
- Dennett, D. C. (1995). *Darwin's dangerous idea: Evolution and the meanings of life*. London: Allen Lane, Penguin Press.
- Dewey, J. [1922] (MW 14 / 1983). *Human nature and conduct*. *The Middle Works of John Dewey*, vol. 14. J. A. Boydston, (Ed.). Carbondale and Edwardsville: Southern Illinois University Press.
- Dewey, J. [1925] (LW 1 / 1988a). *Experience and nature*. *The Later Works of John Dewey*, vol. 1. J. A. Boydston, (Ed.). Carbondale and Edwardsville: Southern Illinois University Press.
- Dewey, J. [1938] (LW 12 / 1991). *Logic: The theory of inquiry*. *The Later Works of John Dewey*, vol. 12. J. A. Boydston, (Ed.). Carbondale and Edwardsville: Southern Illinois University Press.
- Dewey, J. & Bentley, A. F. [1949] (1991). Knowing and the known. In J. A. Boydston (Ed.), *Essays, typescripts, and knowing and the known*. *The Later Works of John Dewey*, vol. 16. Carbondale and Edwardsville: Southern Illinois University Press.
- Donald, M. (2001). *A mind so rare: The evolution of human consciousness*. New York and London: W. W. Norton & Company.
- Durham, W. H. (1991). *Coevolution: Genes, cultures, and human diversity*. Stanford: Stanford University Press.

- Franks, D. D. (2010). *Neurosociology: The nexus between neuroscience and social psychology*. New York: Springer.
- Goudge, T. A. (1973). Pragmatism's contribution to an evolutionary view of mind. *The Monist*, 57, 133–150.
- Hauser, M. D., Chomsky, N. & Fitch, W. T. (2002). The faculty of language: What is it, who has it, and how did it evolve? *Science*, 298, 1569–1579.
- Hund, J. (1998). Searle's the construction of social reality. *Philosophy of the Social Sciences*, 28, 122–131.
- James, W. [1880] (1979). Great men and their environment. In *The will to believe and other essays in popular philosophy. The Works of William James*, edited by F. H. Burkhardt. Cambridge, MA and London: Harvard University Press.
- Jeffares, B. (2010). The co-evolution of tools and minds: Cognition and material culture in the hominin lineage. *Phenomenology and the Cognitive Sciences*, 9, 503–520.
- Kendal, J., Tehrani J. J. & Odling-Smee, J. (2011). "Introduction: Human niche construction in interdisciplinary focus" *Philosophical Transactions of the Royal Society B*, 366, 785–792.
- Kivinen, O. (2011). The philosophy of society? The relevance of Searlean social ontology for social sciences. In E. Kahla (Ed.) *Between utopia and apocalypse: Essays on social theory and Russia*. Helsinki: Aleksanteri Series.
- Kivinen, O. & Piironen, T. (2004). The relevance of ontological commitments in social sciences: Realist and pragmatist viewpoints. *Journal for the Theory of Social Behaviour*, 34, 231–248.

- Kivinen, O. & Piironen, T. (2006). Toward pragmatist methodological relationalism: From philosophizing sociology to sociologizing philosophy. *Philosophy of the Social Sciences*, 36, 303–329.
- Kivinen, O. & Piironen, T. (2007). Sociologizing metaphysics and mind: A pragmatist point of view on the methodology of the social sciences. *Human Studies*, 30, 97–114.
- Laland, K. Odling-Smee, J. & Gilbert, S. F. (2008). EvoDevo and niche construction: Building bridges. *Journal of Experimental Zoology (Mol Dev Evol)*, 310B, 549–566.
- Laland, K., Odling-Smee, J. & Myles, S. (2010). How culture shaped the human genome: Bringing genetics and the human sciences together. *Nature Reviews Genetics*, 11, 137–148.
- Laland, K. & Sterelny, K. (2006). Perspective: Seven reasons (not) to neglect niche construction. *Evolution: International Journal of Evolution*, 60, 1751–1762.
- Lieberman, P. (1998). *Eve spoke: Human language and human evolution*. New York and London: W. W. Norton & Company.
- Mead, G. H. (1934). *Mind, self and society: From the standpoint of a social behaviorist*. C. W. Morris, (Ed.). Chicago: The University of Chicago Press.
- Noë, Alva (2004). *Action in perception*. Cambridge, MA and London: The MIT Press.
- Noë, Alva (2009). *Out of our heads: Why you are not your brain, and other lessons from the biology of consciousness*. New York: Hill and Wang.
- Odling-Smee, F. J., Laland, K. N. & Feldman, M. W. (2003), *Niche construction: The neglected process in evolution*. Princeton, N.J.: Princeton University Press.
- Pihlström S. (2007). Panpsychism—a neglected Jamesian alternative? *Journal of Philosophical Research*, 32, 319–347.

- Pinker, S. (1997). *How the mind works*. New York and London: W. W. Norton & Company.
- Pinker, S. (2002). *The blank slate: The modern denial of human nature*. London and New York: Allen Lane, the Penguin Press.
- Putnam, H. (1999). *The threefold cord: Mind, body, and world*. New York: Columbia University Press.
- Richerson, P. J. & Boyd, R. (2005). *Not by genes alone: How culture transformed human evolution*. Chicago: The University of Chicago Press.
- Rorty, R. (1999). *Philosophy and social hope*. Harmondsworth: Penguin Books.
- Searle, J. R. (1969). *Speech acts: An essay in the philosophy of language*. Cambridge: Cambridge University Press.
- Searle, J. R. (1979). *Expression and meaning: Studies in the theory of speech acts*. Cambridge: Cambridge University Press.
- Searle, J. R. (1983). *Intentionality: An essay in the philosophy of mind*. Cambridge: Cambridge University Press.
- Searle, J. R. (1984). *Minds, brains and science*. Cambridge, MA: Harvard Press.
- Searle, J. R. (1992). *The rediscovery of the mind*. Cambridge, MA and London: The MIT Press.
- Searle, J. R. (1993). Rationality and realism, what is at stake? *Daedalus*, 122, 55–83.
- Searle, J. R. (1995). *The construction of social reality*. New York: The Free Press.
- Searle, J. R. (1997). Responses to the critics of the construction of social reality. *Philosophy and Phenomenological Research*, 57, 449–458.
- Searle, J. R. (1998). *Mind, language and society: Philosophy in the real world*. New York: Basic Books.



- Searle, J. R. (2001). Social ontology and the philosophy of society. In E. Lagerspetz, H. Ikäheimo & J. Kotkavirta (Eds.) *On the nature of social and institutional reality* (pp. 15–38) Jyväskylä: SoPhi.
- Searle, J. R. (2002). *Consciousness and language*. Cambridge: Cambridge University Press.
- Searle, J. R. (2006). What is language: Some preliminary remarks. A paper downloaded from Searle's homepage, <<http://ist-socrates.berkeley.edu/~jsearle/whatislanguage.pdf>>
- Searle, J. R. (2010). *Making the social world: The structure of human civilization*. Oxford and New York: Oxford University Press.
- Searle, J. R. (2011a). Is just thinking enough? Reply to Colin McGinn. *The New York Review of Books*, 24 Feb.
- Searle, J. R. (2011b). Wittgenstein and the background. *American Philosophical Quarterly*, 48, 119–128.
- Sellars, W. (1956). *Empiricism and the philosophy of mind*. Cambridge, MA and London: Harvard University Press.
- Sterelny, K. (2007). Social intelligence, human intelligence and niche construction. *Philosophical Transactions of the Royal Society B*, 362, 719–730.
- Sterelny, K. (2010). Minds: Extended or scaffolded? *Phenomenology and the Cognitive Sciences*, 9, 465–481.
- Sterelny, K. (2011). From hominins to humans: How sapiens became behaviourally modern. *Philosophical Transactions of the Royal Society B*, 366, 809–822.
- Thrift, N. (2008). *Non-representational theory: Space / politics / affect*. London and New York: Routledge.

- Tooby, J. & Cosmides, L. (1992). The psychological foundations of culture. In J. Barkov, L. Cosmides & J. Tooby (Eds.) *The adapted mind: Evolutionary psychology and the generation of culture* (pp. 19–136) New York: Oxford University Press.
- Wrangham, R. W. (2001). Out of the pan, into the fire: How our ancestors' evolution depended on what they ate. In F. de Waal (Ed.) *Tree of life* (pp. 121–141) Cambridge, MA: Harvard University Press.

---

## NOTES

<sup>1</sup> Searle builds this Philosophy of Society largely on his older work, especially his early philosophy of language (Searle, 1969, 1979) and the philosophy of mind he elaborated during the 1980s and 90s (Searle, 1983, 1984, 1992). *Consciousness and Language* (Searle 2002) offers a relatively recent perspective into and a combination of both themes.

<sup>2</sup> Of course, there are many different “naturalistic” standpoints, but the space herein only allows us to concentrate on these two typified examples.

<sup>3</sup> The reception of Searle’s social ontology has not been altogether positive among social scientists, it should perhaps be mentioned. For instance, of the main idea of Status Function Declarations it has been said that it is something that we in the social sciences have known for at least a hundred years now, and the Searle’s social ontological project as a whole (presented in a very confident and uncompromising manner though it is) has been deemed useless for the working social scientists (Becker, 2010; Blackburn, 2010; Bühler, 2010; see also Kivinen & Piirainen, 2007).

<sup>4</sup> That is, in nature, genetic mutations produce the alteration of new features and the environment then selects from amongst those features by way of making it more likely for organisms with such-and-such

---

features to survive than their competitors. And analogously for Searle, people are disposed to behave as they do because of their physical and mental structures, which have been selected by the human environment; apparently, those physical and mental structures have been favoured because they have best “conformed” to that environment (see Searle, 1995, pp. 143 ff.).

<sup>5</sup> Deacon (1997) criticizes Chomsky’s explanation for language in particular, pointing out that that sort of “hopeful monster” theories where some “freak mutation just happens to produce a radically different and serendipitously better-equipped organism” are really no better than an “evolutionary theorist’s counterpart to divine intervention” (p. 35).

<sup>6</sup> In language, or any other full-blown symbol system, signs gain their meanings through their relations to other signs, and so a handful of signs do not constitute a language, they are not real symbols. Their meanings probably depend on iconic or indexical as opposed to symbolic significance, to use old Peircean terms, yet they may have served as proto-symbols paving the way for a proper symbol system to develop around them. The point is, this may have happened through a relatively gradual process, by way of adding more and more signs and starting to combine some of them together, rather than be due to sudden emergence of a language module inside some lucky hominids’ brains. (See Deacon, 1997; Bickerton, 2009.)

<sup>7</sup> For instance, Michael Arbib (2011) endorses the value of niche construction but rejects the notion that there ever was a single key factor in language evolution.

<sup>8</sup> A related point highlighted by Deacon (1997, pp. 109–110, 122) is that languages have actually evolved much more rapidly than the brains. Of course, brains have also adapted to our languages, but it would seem that languages have adapted more to our brains (or to the brains of young children). (The basic idea here is not a new one, let us mention. Already a hundred years before Deacon, Charles Darwin (1874, p. 106) and his contemporaries understood that we may think of languages as something that also evolve under the laws of natural selection.)

<sup>9</sup> As Donald Davidson (1991, pp. 157–160) put it: all meaning and indeed all knowledge and thought ultimately depend on communication, spring from the process of “triangulation” between one person saying something, another interpreting what is being said, and the object they are talking about; the shared

---

reactions of speaker and interpreter to common stimuli give speech and therefore thought and knowledge its propositional content.

<sup>10</sup> Searle, too, rejects all the most blatant forms of Cartesian dualism. “The famous mind–body problem ... has a simple solution,” he says: “Mental phenomena are caused by neurophysiological processes in the brain and are themselves features of the brain.” (Searle, 1992, p. 1.) But he does not drop the subject–object dualism, we are afraid, and he explicitly endorses the chasm between consciousness and behaviour.

<sup>11</sup> As tools for coping, they are certainly to be evaluated “in terms of effectivity rather than representation” (Thrift, 2008, p. 113).

<sup>12</sup> “If we had not talked with others and they with us, we should never [have] talk[ed] to and with ourselves,” Dewey (LW 1: pp. 135 ff.) points out.

<sup>13</sup> As William James [1880] (1979, pp. 163–166) already realized, one can only have an actor’s point of view on anything; the world can never be pictured as if from the above, or as passively mirrored—what we perceive is always very much affected by what we do (also, e.g., Noë, 2004, p. 1, 2009, 83).

<sup>14</sup> Searle is usually rather careful not to characterize himself an individualist, though, but at least occasionally he lets some such admissions slip: “I need an account of collective intentionality which is consistent with methodological individualism,” he said in his response to a paper by Jennifer Hornsby, and went on to claim that any given “social collective consists entirely of individual agents with collective intentionality in their heads, nothing more. Ontologically speaking, collective intentionality gives rise to the collective, and not the other way round.” (Searle, 1997b, p. 449.)

<sup>15</sup> These problems are reflected in Searle’s all too vague and poorly operationalizable mishmash umbrella concept of “the Background,” which evidently includes all sorts of know-how, skills, embodied dispositions, habits of action, practices, and so on (cf. Searle, 1995, pp. 125–147, 2011b)—a concept with which Searle confesses he is presently unsatisfied with, even after having written about it extensively over many years (Searle, 2011b, p. 120). The root cause of the unsatisfactory nature of this concept is, we suggest, that it is not based on an appropriate theory of (social) action like the pragmatists’ concepts of habit and custom are, such that would integrate individual action with the social world, the community.