Minding The Gap: In Defense of Mind-mind Continuity*

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As commonsense would have it, dogs, cats, elephants, dolphins, chimps, and many other species of nonhuman animals are minded creatures: they can feel hunger, thirst, fatigue, agitation, pain and pleasure; they can try or want to do things; they can be startled, surprised, puzzled, or scared by this or that; they can have more or less specific interests, wants, and expectations; and, though languageless, they can communicate with – and understand – each other. Yet a long tradition of philosophical skeptics have sought to establish on conceptual grounds that animals’ mental states, understanding, and communication differ so greatly from ours that they cannot be intelligibly regarded as located along a natural continuum culminating in our own mentality and language. The minds of nonhuman animals (and possibly even of very young humans) and our minds are separated by an unbridgeable gap, and this undermines the possibility of a natural history of human minds (or at least of our ability to tell and make sense of such a history). This view I call ‘continuity skepticism’. My aim is to engage a continuity skepticism who maintains that philosophical reflection on the differences between human minds and the minds (such as they are) of the nonhuman animals we know should lead us to question the very idea of the emergence (or natural origins) of mind. That is: the idea that we should regard as misguided the philosophical search for natural precursors of our own minds in the mental capacities of some ancestral creatures expecting that they could have foreshadowed (and could shed light on) our own.

This ‘diachronic’ claim – concerning how our minds could ‘come to be’ – is much more radical than any ‘synchronic’ claim to the effect that there are qualitative differences – differences ‘in kind’, and not just degree – between human and nonhuman mentality. The presence of extant qualitative gaps is in principle consistent with the existence of extinct intermediaries. Yet it is not always easy to keep the two types of claims apart. On the one hand, proponents of continuity can be led to over-interpret the mental and communicative capacities of existing animal species, by reading key features of our own mentality as we conceive it into the mental lives of animals. Or, proponents may be led to underplay some of the evidently unique features of human thought and language and underestimate the enormity of the task of explaining their emergence. On the other hand, sceptical opponents of continuity, impressed by synchronic differences, are pushed to portray animal behavior as all of a piece, and paper over behavioral nuances that could shed explanatory light on the origins of some of the features deemed distinctive of humans. At the same time, they are tempted to paint a picture of our own distinctive mindedness as permeating everything we do, crowding out all vestiges of our (putative) nonhuman origins.

My aim in what follows will be to sketch an intermediate position. I’ll begin by briefly outlining a radical version of continuity skepticism, defended by Davidson (section 1), which is of special interest in the present context, given the connection he sees between genuine mindedness, on the one hand, and (a specific type of) mutual reflective understanding, on the other. Without such understanding – Davidson maintains – even creatures capable of certain intersubjective interactions could not be on their way to genuine objective thought. And, as we’ll see, Davidson explicitly denies the possibility of explaining the emergence of thought.

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* Sections 2 and 3 overlap in parts with my paper “Expressive Communication and Continuity Skepticism” (forthcoming in the Journal of Philosophy, April 2013) which, in turn, draws on 2 earlier published papers (Bar-On & Green 2010 and Bar-On & Priselac 2011).

2 Historically, debates regarding animal mentality divided empiricists and rationalists. Empiricists like Hobbes, Locke, and Hume, insisted that all distinctively human powers can be understood as elaborations on abilities we share with nonhuman animals – sensation, memory, imagination, and perception. Rationalists such as Descartes, Leibniz, and Kant, by contrast, insisted that we humans are endowed with distinctive powers – intellect, reason, discourse, understanding, and apperception – which are wholly different from, and irreducible to, the powers possessed by nonhuman animals.

3 Terminological point: I’m not here using the label “skepticism” to contrast with “dogmatism”. As we’ll see, my continuity skeptic is so-labeled for raising a systematic doubt about both commonsense and scientific views concerning our relation to the beasts, and consequently seeks to jettison a certain set of philosophical/explanatory projects. See Section 1 below.
Exceeding Davidson’s view should be of interest to anyone who wishes to undermine continuity skepticism, since some of the assumptions that inform his view are shared by other contemporary continuity skeptics. Doing so will allow us to articulate a key philosophical challenge faced by proponents of continuity: to characterize a stable middle-ground between full-blown reflective understanding of the sort we, adult human beings, are presumably capable of, on the one hand, and the sort of mutual reactions and responsive behaviors to which (the skeptic thinks) all animal interactions can be reduced, on the other. A proponent of continuity could, of course, reject Davidson’s conception of human mindedness and embrace wholesale eliminativism, providing what one might describe as a skeptical response to continuity skepticism. My interest here, by contrast, will be to begin outlining a straight response. In section 2, I’ll present a form of communication we share with nonlinguistic and prelinguistic creatures, namely – expressive communication, which is not grounded in mutual reflective understanding. My aim will be to portray expressive interactions as providing a ‘synchronic middle ground’, poised between the poles that Davidson (like other skeptics) contrasts. In Section 3, I’ll argue that proper appreciation of the role expressive behavior plays in the lives of creatures capable of it, and the kind of communication it affords, will point to a ‘diachronic bridge’ that could feature in a natural history connecting us with our pre-human ancestors. In Section 4, I will address the question what implications the existence of a natural history (in my sense) of our minds may have for our philosophical understanding of the relationship between human and nonhuman mindedness.

1. Continuity Skepticism

Since contemporary continuity skeptics, unlike some of their historical predecessors, typically disavow Cartesian Mind-Body dualism and are self-proclaimed naturalists, we can, for present purposes, set aside arguments that purport to show that (human) minds cannot, by their metaphysical nature, be part of the natural world, as well as arguments that trade on essentially epistemic, or else systematic methodological problems with knowing the minds of nonhuman animals. Continuity skepticism as I’ll understand it here is motivated by philosophical reflections on a ‘synchronic gap’ suggesting that there are some fundamental qualitative differences – differences ‘in kind and not in degree’ – between e.g. the intentional, objective, reflective, rule-governed, symbolic, world-directed, propositional, reason-based, norm-governed character of full-fledged human thought and communication, on the one hand, and the merely responsive, stimulus-bound, passion-or need-driven, pattern-governed, non-symbolic, merely world-involving, and thoroughly manipulable character of nonhuman animal conduct, on the other hand. Given the differences, some philosophers have maintained that the application of our concepts of intentional action, meaning, semantic content, reference, propositional attitudes, etc. to nonhuman creatures is at best a matter of analogy or ‘metaphorical extension’. Importantly, the idea that there are distinctive, unique, and essentially human capacities that do not have even remote analogues among nonhuman animals survives the recognition that various species of nonhuman animals are not only sentient, but also possess intelligence, and are capable of goal-directed behavior and self-initiated action, as well as complex cognition, memory, and intricate sociality.¹

We can discern three key claims made by continuity skeptics, in increasing order of strength – and, I’d say, decreasing order of plausibility (some representative quotations, due to Brandom and McDowell are on the slides):²

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² As my aim here is not exegetical, I provide a very selective sample of relevant citations below, without pretending to do justice to the richness and subtlety of the works cited. For more, see Bar-On “Expressive Communication and Continuity Skepticism” (forthcoming).
(i) **Observation of significant, qualitative human/nonhuman differences (‘synchronic discontinuity’)**

Many nonhuman animals enjoy *sentence*, as well as possessing “reliable differential responsive dispositions”. But human beings also enjoy *sapience*, which “consists in knowing one’s way around the space of reasons”.

(ii) **Denial of mental commonalities between us and ‘dumb animals’ (‘synchronic disconnect’)**

Human mental capacities cannot be ‘factorized’ into those we fully “share with dumb animals” and those we don’t. Even as regards sentience, we should recognize that “there are two species…, one permeated by spontaneity and another independent of it”. Even “our embodied coping” amounts to “more than the embodied coping of nonrational animals”. 6,7

(iii) **Rejection of diachronic continuity in the order of explanation’ (‘diachronic discontinuity’)**

The undeniable claim that “there were nonlinguistic animals before there were linguistic ones, and the latter did not arise by magic” is only a claim about the causal ‘order of being’. In the ‘order of explanation’, the irreducibly normative “intentionality of nonlinguistic creatures is dependent on, and … derivative from, that of their linguistically qualified interpreters, who as a community exhibit a nonderivative, original intentionality”. 8 It is therefore philosophically futile to raise the question of “where we come from”.

Why think of these claims as amounting to a form of skepticism? Briefly, like more familiar skeptics in other areas, continuity skeptics are prepared to distance themselves equally from the deliverances of both commonsense and the relevant sciences. (Indeed, an even-handed rejection of both contravening commonsense intuitions and contrary scientific findings may well be one hallmark of philosophical skepticism.) For example, the Quinean or Kripkensteinian meaning skeptic dismisses as objectively ungrounded the commonsense confidence that alternative interpretations of speakers’ utterances can be ruled out. But he is equally dismissive of scientific attempts to ground interpretation choices in objective facts (say, facts about speakers’ behavioral dispositions, or cognitive organization) for failing to capture the ostensibly normative character of our practices of meaning or rule-following attributions. 9 Similarly, the continuity skeptic regards commonsense mentalistic attributions to animals as shot through with uncritically applied concepts that are inherently tailored to understanding our minds. He would see ‘folk ethology’ (as we might call it) as hopelessly anthropomorphic – ‘too thick’ – and thus an unfit starting point for a philosophical explanation of our relation to the beasts. On the other hand, scientific accounts that place our mental and linguistic capacities in the ‘order of being’, insofar as they stay clear of uncritical anthropomorphism, are bound to be reductionist – ‘too thin’ – to deliver a philosophically credible account of the emergence of our minds from those of mere brutes. 10

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6 McDowell, *Mind and World*, p. 69. What we must resist is the “temptation to think it must be possible to isolate what we have in common with them by stripping off what is special about us” in virtue of our conceptual abilities, so as “to arrive at a residue that we can recognize as what figures in the perceptual lives of mere animals” (*Mind and world*, p. 64).

7 To use a vivid metaphor proposed by a well-known opponent of Darwin – Max Friedrich Müller – “In the mind of man percepts, pur et simple, do not exist: they are always tinged with the first rays of the dawn which precedes the full sunrise of conceptual light” (1887:27).


1.1 Davidson’s Triangulation

The three claims introduced above are all explicitly endorsed by Davidson. A key feature of human thought and language, which all animal thought and communication lack, is the objectivity of semantic content. Objective thought, Davidson says, “has a content which is true or false independent (…) of the existence of the thought or the thinker.”11 It requires possession of concepts, whose employment involves rule-following (as opposed to merely behaving in accordance with rules), which brings in its train the possibility of genuine error. Davidson, like Brandom and McDowell, thinks that the possibility of genuine error requires the rule-follower’s awareness of that possibility: “one cannot believe something, or doubt it, without knowing that what one believes or doubts may be either true or false and that one may be wrong.”13 Thus, having objective thought requires the thinker to have an awareness or grasp of objectivity, something that goes beyond the capacities of nonhuman animals.14

In “The Emergence of Thought”, Davidson directly addresses the question of “the emergence of mental phenomena” – which, he says, is the “conceptual problem … of describing the early stages in the maturing of reason … that precede the situation in which [mentalistic] concepts have clear application” (127). There (and elsewhere), he explicitly endorses continuity skepticism:

“There cannot be a sequence of emerging features of the mental, not if those features are to be described in the usual mentalistic vocabulary. Of course … each stage in the emergence of thought can be described in physical terms. But this will fail as an explanation of the emergence of the mental since we … cannot expect to find, a way of mapping events described in the physical vocabulary onto events described in the mental vocabulary. … In both the evolution of thought in the history of mankind, and the evolution of thought in an individual, there is a stage at which there is no thought followed by a subsequent stage at which there is thought. To describe the emergence of thought would be to describe the process which leads from the first to the second of these stages. What we lack is a satisfactory vocabulary for describing the intermediate steps. (ibid., emphasis added)

To support the seemingly questionable move from the last claim, about lack of vocabulary, to the claim that there can be no intermediate steps or emergence, Davidson introduces the idea of triangulation. This is the idea that contentful thought about an objective world, as well as meaningful linguistic communication, require “the existence of a triangle” whose base connects two subjects, S1 and S2, and whose apex is an object in the world, O (121). In defense of this continuity skepticism, Davidson invites us to contrast a ‘pure’ triangular scenario, of the sort prevalent among non-human animals, with the ‘reflective’ triangular scenarios we are familiar with in our own everyday intersubjective experiences.

Subjects in pure (non-linguistic) triangulation, Davidson allows, can “classify” and “generalize”, and form “habitual inductions”, even learned ones, grouping various stimuli together “by virtue of the similarity

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11 Davidson, Subjective, Intersubjective, Objective, p. 130.
12 For an earlier articulation of this claim, see Bennett (1964: 87f).
13 Davidson, Subjective, Intersubjective, Objective, p.130. Unless otherwise specified, references below are to this work.
14 Brandom and McDowell agree with Davidson that even perceptual thought, if it is to enjoy objectivity, requires reflective grasp of the contrast between subjective and objective (though Brandom assigns a much more central role than McDowell to the community in grounding the relevant norms). See Brandom (Making It Explicit: 48, 63) and McDowell (Mind and World 114ff.). In his recent Origins of Objectivity (Oxford University Press, 2010), especially chapter 2, Tyler Burge criticizes this view of objective thought as betraying a thoroughly misguided ‘Individualist Representationalism’ and defends a (synchronic) continuity view on which even arthropods are capable of objective perceptual representations. In Bar-On and Priselac, “Origins: Subjective, Objective, Intersubjective” (in progress), we evaluate the extent to which Burge’s defense of continuity succeeds in engaging Davidson’s skepticism.
He even allows that they can come to associate each other’s responses to O with O. For example, S1 could respond to S2’s O-reaction as S2 responds to O, and vice-versa. This makes room for a simultaneous discrepancy that is at the heart of objectivity (as Davidson understands it), whereupon ‘space is created’ for the concept of error to develop.

Figure 1: ‘Pure’ Triangulation

But although Davidson thinks that this sort of scenario is necessary for providing a conceptual foundation for objective thought, he insists that it’s insufficient for its emergence. This is because nothing in the inter-subjective interactions of pure triangulation supports the attribution of reflective grasp of the concepts of error, belief, truth, etc. From each subject’s point of view, the other subject’s behavior is simply something that can be correlated (or not) with items in the world – objects, events, state of affairs – as smoke is correlated with fire, or deer tracks with the recent presence of deer. Any disagreement between them would amount to no more than behavioral discord. What’s missing is one subject’s treating another as a subject who has a take on the world, which take can fit or fail to fit with the way things are. Indeed, Davidson thinks that nothing short of linguistic communication between the two subjects could move us significantly beyond pure triangulation, for “[o]nly when language is in place can creatures appreciate the concept of objective truth… [and] make use of the triangular situation to form judgments about the world”. In what he calls reflective triangulation, we have language speakers, capable of responding to objects with meaningful, true or false utterances. On a given occasion, S1 may produce a sentence (say, “There’s a leopard nearby”) which S2 presumes S1 to hold true, and yet which he (S2) takes to be false. Genuine objectivity is provided for via the possibility of each subject recognizing a potential gap between what is held to be true (and thus believed) and what is the case. (Note that one can be less committal on the question whether the capacity of language as such is what is necessary; and perhaps one could even deny its sufficiency.)

15 Donald Davidson, “Externalisms,” in Petr Kotatko, Peter Pagin, Gabriel Segal, eds., Interpreting Davidson: selected papers from the 1996 Karlovy Vary symposium on analytical philosophy (Palo Alto: CSLI Press), pp. 1-16. (The quotation is from p. 5.)


17 See Davidson, Subjective, Intersubjective, Objective, p. 121. See also Davidson, “Externalisms,” especially pp. 11-16; and see Naomi Eilan, “Joint Attention, Communication, and Mind,” in Naomi Eilan, Christoph Hoerl, Teresa McCormack, and Johannes Roessler, eds., Joint Attention: Communication and Other Minds (Oxford University Press, 2005), pp. 1-34, for a helpful interpretation of this point.

18 Davidson, Subjective, Intersubjective, Objective, p.131; see also Davidson, “Externalisms”, p. 13, Problems of Rationality, pp. 140-141. And compare McDowell (Mind and World, 114f.), who argues that a perceiver’s grasp of the difference between subjective and objective is required to render her environment “more than a succession of problems and opportunities”; and to allow both a [subjective] self and an [objective] world to “be in view”.

19 For more on the role language plays, see especially Subjective, Intersubjective, Objective, pp. 111ff., and 119ff.). Unlike Quine, Davidson is not a wholesale skeptic about the legitimate application of the intentional idiom. For him, once mutual linguistic interpretation is in place, there is room for genuine rule-following, conceptualization, and the possibility of genuine error and disagreement.
The crucial claim, it seems, is that reflective triangulation is different in kind from pure triangulation, and that proper understanding of the reflective capacities manifested in it would give the lie to any attempt to interpose a significant intermediary between them.

Figure 2: Reflective Triangulation

As Davidson is aware, insisting that reflective triangulation is not only sufficient but also necessary for the emergence of objective thought amounts to giving up on explaining the natural emergence of objective thought and linguistic communication. But it is one thing to maintain that the non-linguistic animals currently around us have no propositional attitudes, and are thus incapable of reflective intersubjectivity, so that (therefore) their interactions cannot support genuine objectivity and full-blown semantic content. It is quite another to maintain that, even diachronically speaking, there is no significant, intelligible middle-ground that could be interposed between the intersubjective interactions of pure and reflective triangulations. Yet Davidson holds precisely that – the facts of nature notwithstanding – there is no hope of explaining how human thought and language could have emerged. For Davidson, as for Brandom and McDowell, this skepticism about emergence is a consequence of the irreducibly intersubjective and normative character of objective thought. To think that we could locate a significant stage between pure and reflective triangulation, he says, is to suppose that we could “have an analysis of thought” or “a reduction of the intentional to the extensional”, something that “is not to be expected.” A philosophical account of the emergence of objective thought and language – he concludes – is not to be had.

We can see Davidson’s continuity skepticism as resting on the following claims:

1. The objectivity of thought (as well as its intentionality, in Brentano’s sense) has an irreducibly normative character.  
   ‘Irreducibility’

2. To have objective, intentional thought, a subject must have grasp of the concept of objectivity.  
   ‘Grasp’

3. Grasp of the relevant notion of objectivity requires intersubjectivity – it requires an understanding of the idea of another subject’s take.  
   ‘Intersubjectivity’

4. Intersubjective interactions in all but reflective triangulation are unfit to provide such understanding. (Alleged intermediate cases either collapse into the ‘pure’ case, or are assimilated into the reflective case.)  
   ‘Reflective Interpretation’

None of these Davidsonian claims is unproblematic. Quinean eliminativists, instrumentalists, and so-called radical enactivists, may accept the irreducibility of intentional idioms (1) but for that reason maintain that no such notions could have room in serious theorizing about the mind. In a clear sense, these philosophers are not engaging the Davidsonian continuity skeptic, as they are in no way concerned to identify

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21 Others, like Marcus and Boyle, focus on rationality as the essential hallmark of human mindedness.
22 Davidson, “Externalisms”, p. 13, emphasis added.
23 Versions of some of these claims have featured in recent philosophy of mind. See, for example, Marcus (2012) and Boyle (2010). Neither Marcus nor Boyle follow Davidson in highlighting the essential role of intersubjective interpretation in grounding the objectivity of thought. ADD
a stable intermediary case between Davidson’s pure and reflective cases (by tackling Claim 4 head on). They can perhaps be seen as providing a ‘skeptical response’ to continuity skepticism.

In recent years, several philosophers of mind – most notably, Burge (2010) – have taken issue with what they regard as the hyperintellectualism manifest in Davidson’s ‘grasp’ requirement (Claim 2). In contrast to eliminativists, these philosophers believe that intentional notions do have a substantial role to play in the scientific explanation of perception, behavior, and action. They think that, once it is denied that having objective thought requires individuals already to have the “psychological resources to represent preconditions of objectivity” (as Burge puts it, 2010: 139), the road is clear to recognizing that current scientific theories of perception, for example, make warranted attributions of certain intentional states when characterizing the mental life and explaining the behavior of nonhuman animals (including not only mammals and birds, but even invertebrates). On this representationalist view, by the time we get to (what Davidson describes as) pure triangulation, objective, genuinely representational thought is already in place. So this view is clearly apt to fund substantial continuities between the representational capacities of nonhuman animals and ours. However, proponents of representationalism often also reject Davidson’s Claim 3 (which assigns a special role for intersubjective interactions). So, like the eliminativists (though for different reasons), they do not appear concerned to tackle Claim 4 head on. (In any event, and relatedly, from the perspective of the skeptic, representationalists may seem guilty of an overly reductionist conception of what it takes to have objective thought; so the skeptic may deny that the representationalist pays sufficient heed to Claim 1.)

While I agree that we should reject Davidson’s ‘grasp’ requirement, as well as the Davidsonian conception of basic mutual understanding as requiring reflective interpretation, I am not here concerned to argue for this. Instead, in what follows, I’m interested in seeing whether we can engage the continuity skeptic by offering a viable candidate for a middle-ground that tries to accommodate the distinctive role Davidson assigns for intersubjectivity in grounding objectivity. To do this, I submit, one must identify a distinct type of animal intersubjective interactions that can be seen to foreshadow key features of human mentality as the skeptic understands it, without yet fully exemplifying all of them. (If I’m successful, my line of thought should have consequences not only for the plausibility of continuity skepticism but also for other, seemingly less radical versions of the ‘unbridgeable gap’ claim. I will return to this in Section 4.)

2. Expressive Communication

Thinking in terms of Davidson’s sharply contrasting triangles, the challenge is to try to bridge the diachronic gap without either underestimating the rich character of linguistic interactions in reflective triangulation or overestimating the power of non-linguistic interactions in pure triangulation. This requires a characterization of a genuinely intermediate triangulation that neither collapses into pure triangulation nor illicitly
presupposes capacities that are only possible in reflective triangulation. So, for example, thinking specifically of the emergence of meaningful speech, several continuity skeptics (Davidson included) have rejected out of hand views that require the presence of full-dress propositional thought independently of, and prior to the emergence of compositional, meaningful language. As the skeptic sees it, the capacity for such thought is coeval with language; it can’t be invoked in an explanation of its emergence. For similar reasons, our skeptic would reject Darwin’s own suggestion regarding how the ‘language Rubicon’ might be crossed, which involved the idea that ‘some unusually wise ape-like animal’ might have thought to use a sound in order ‘to indicate to his fellow monkeys the nature of [some] expected danger’ (1871: 57).

However, in Darwin we also find the idea that a key stage before the inventive communicative feat of his ‘ape-like animal’ involved the production of songs that served for ‘the [musical] expression of emotions like love, jealousy, and triumph’. And in a later, seminal work – *The Expression of the Emotions in Man and Animals* 26 – he identifies expressive behavior more generally as representing an important common ground between ‘man and animals’.

By expressive behavior, Darwin had in mind these sorts of displays:

To these we could add yelps, growls, tail-waggings, fear barks and grimaces, lip smacks, ground slaps, food-begging gestures, ‘play faces’ and play bows, copulation grimaces and screams, pant hoots, alarm, distress, and food calls, grooming grunts, open-mouth and ear-flap threats, eyebrow flashes, and so on.27 Darwin provides a rather nuanced characterization of these sorts of behaviors – as being at once physiological and psychological, linking bodily changes and movements intimately with complex, world-directed emotional states.28 Yet many philosophers, as well as theorists of animal communication and language evolution, often assimilate paradigmatic natural expressions too closely to mere physiological symptoms, such as red spots on the skin and sneezes, or to nonvoluntary displays that merely convey information about biologically significant features of the displayer (like a peacock’s tail), portraying them simply as reliable natural signs of the internal states that regularly cause them.29 With Darwin, I think that a purely causal construal fails to do


28 Darwin was arguing against an earlier work by Charles Bell – *Anatomy and Philosophy of Expression* (1824) – that the expressive behaviors of human and nonhuman animals had shared ancestry (whereas Bell maintained that there were divinely created human muscles designed for the expression of uniquely human feelings).

justice to the richness and complexity of expressive behaviors.30 Elsewhere, I have argued that animal expressive interactions exhibit features that foreshadow significant aspects of human linguistic communication, despite not being underwritten by complex communicative intentions or ingenious insight. Here I’d like to bring some of these ideas to bear on the challenge posed by continuity skepticism.

2.1 Expressing and Showing

Consider first expressive behavior in our own species. Upon seeing a friendly dog, little Johnny’s face may light up; or he may let out an excited gasp, pointing at the dog; or he may emit a distinctive sound (“Uh!”), or call out: “doggy!” as he reaches to pet the dog; or he may exclaim: “Wanna pet the doggy!” perhaps with no reaching. Jonny’s facial expression and his gasp is what’s sometimes described as ‘purely natural’ expressions; whereas his eager reaching and subsequent utterances are expressive behaviors he voluntarily or perhaps even intentionally engages in to give vent to his desire to pet the dog. Among the utterances, note, are English sentences, which have nonnatural linguistic meaning. They express in (what Sellars calls) the semantic sense propositions. Still, these all seem genuine instances of expressive behavior. What renders them so has to do with similarities among the performances or acts, which equally serve to give vent to Johnny’s state of mind. These similarities obtain despite significant differences among the expressive vehicles used. One can give expression to – express in the mental-state sense – one’s amusement at a joke by laughing (where we may assume that laughter does not stand in a semantic representational relation to being amused), as well as by uttering a sentence such as “This is so funny!” (which does have a conventional nonnatural meaning). Similar expressive performances, different vehicles of expression.

What makes a performance or act one of expressing? An idea that takes its inspiration from earlier philosophical work on expression, including remarks by Wittgenstein, as well as Ayer (when introducing emotivism), is that distinctively expressive performances involve not only signaling, or informing about, one’s mental state but also showing it.32 What renders behavior expressive – the thought goes – is a matter of how the behavior is related to the expressed state as well as the way it imparts knowledge. On the expresser’s side, the showing behavior relevant to expressing is behavior that springs directly from – and directly betrays – the expressed state of mind. On the observer’s side, the relevant contrast is between behavior that allows some kind of direct recognition of the expressed state, as opposed to requiring, say, inference (however secure) from various features of the behavior supplemented by contextual information and background knowledge. A related distinction is drawn by ethologists and biologists when they describe animals’ ‘affective displays’ as ‘merely expressive’, meaning that they are directly tied to, and directly manifest animals’ affective states. Such displays are contrasted with intentionally produced behaviors that are designed to provide an audience with information about the producer or her environment.

Now, in a minute, I’ll be arguing that the received view of expressive behaviors as merely reflexive, automatic natural signs of expressed states is too impoverished, and that expressive interactions constitute a genuine middle-ground. But it’s important, first, to distinguish expressive behaviors also from signs that


31 Wilfrid Sellars, “Language as Thought and as Communication,” in Philosophy and Phenomenological Research, volume 29 (1969), pp. 506-527, distinguishes expressing in the semantic sense from expressing in the causal and the action senses. Bar-On, Speaking My Mind, distinguishes between an act of expressing and its product, on the one hand, and between the process and vehicle of expressing, and defends a ‘neo-expressivist’ construal, according to which an avowal such as “I’m so glad to see you!” ‘m-expresses’ the speaker’s joy at seeing the addressee, using a vehicle that ‘s-expresses; the self-ascriptive proposition that the speaker is glad to see her addressee (see especially Chs. 6-8).

32 This is a contrast that informed, for example, Ayer’s discussion when introducing his influential emotivist view of ethical discourse and distinguishing it from the subjectivist view; he says: “…if I say, “Tolerance is a virtue,” I should not be making any statement about my own feelings or about anything else. I should simply be evincing my feelings, which is not at all the same thing as saying that I have them.” (1936/46: 109-10).
merely convey information, of whatever kind, about a signaler’s states.\textsuperscript{33} Deer tracks may inform a trained mountaineer of a deer’s size and weight, whether it was walking or running, and so on. A wound examined by a forensic expert may give information about the implement that inflicted the wound. The tracks and the wound are mere traces, though they can convey detailed information. Symptoms such as sneezes and red spots also indicate the presence of certain underlying bodily conditions. But a wince, a growl, a cowering demeanor, a squeal of delight, a suddenly shifting gaze, don’t simply provide information or give evidence about states of mind; they exhibit or display them. Correlatively, witnesses to expressive behavior (if they’re suitably endowed) don’t infer or gather that the expresser is in the expressed state; they directly recognize it. Naturally expressive behaviors are not merely symptoms, nor even simply signals that indicate states of mind. Unlike verbal descriptions or reports, such behaviors show expressers’ states of mind to suitably endowed perceivers, rather than intentionally and articulately tell about these states.

The showing involved is not that of a mathematical or logical proof or observational evidence; it’s not showing that something is the case. It’s also not like the modeling involved in various kinds of maps. When confronted with an animal baring its teeth in anger, a child smiling in pleasure, a man raising an eyebrow, we may take ourselves to be witnessing how things are with the expresser. We often speak of seeing someone’s anger, hearing the nervousness in someone’s uneven voice and feeling the tension in someone’s body, and so on. At least some expressive behavior makes perceptible, or enables direct recognition of, the expressed states by observers who are suitably attuned (whether by nature or experience).\textsuperscript{34} Pioneering work done by psychologist Paul Ekman on human facial expressions (directly inspired by the aforementioned 1872 book by Darwin), as well as more recent applications of it to nonhuman primates (see e.g. work by Maestripieri and Parr), support the idea that a suitably endowed individual (typically, but not necessarily, a conspecific) can, for example, perceive an emotion such as anger, in the face of another, by perceiving a characteristic component of it, say, the baring of its teeth, which foretells the animal’s impending action of striking at the target of its anger.\textsuperscript{35}

On the view I’m suggesting here, in contrast to introspectionist views (both Cartesian and materialist), others are often able to perceive or directly recognize an individual’s mental state, provided they are suitably attuned, and provided the individual engages in expressive behavior. On this view, an individual capable of engaging in expressive behavior is showing rather than hiding a state of mind they are in, and not merely showing that they are in the state (the way, e.g., someone taking an aspirin is showing that they are in some kind of pain). Naturally expressive behavior exhibits directly not only the presence of a state of mind, but also its quality, degree and object. A natural expression can display the location of a pain in the chest, as well as its severity, rage, as opposed to panic, at a specific attacker, extreme or mild curiosity at a doll disappearing behind a screen, and so on. Indeed, it’s by perceiving (seeing, hearing, feeling) the quality, degree, or object of someone’s state of mind, as those are exhibited in her expressive behavior, that we perceive the state she is in.\textsuperscript{36, 37}

\textsuperscript{33} For relevant references and discussion, see Bar-On and Green (2010), and Bar-On (forthcoming a).

\textsuperscript{34} Along these lines, it has been suggested in recent years that expressive – and even linguistic – interactions among human beings are best characterized in terms of perception, as opposed to propositional-inferential information processing; see work by e.g. Shaun Gallagher, and Francois Recanatti.

\textsuperscript{35} As an aside: Of course, on a given occasion, an animal can bare its teeth without being angry, for any number of reasons, not necessarily through trying to deceive; in which case one couldn’t perceive the anger by perceiving the teeth-baring. Showing and seeing are both factive. But that doesn’t tell against perception. Compare: We can see a tree by seeing a characteristic component of it – say, one of its branches – even though on occasion, if the branch were severed, we might be seeing the branch without seeing the tree. If the tree is there, attached to the branch, I can see it by seeing its branch. Likewise, if our animal is angry, we can see its anger by seeing a characteristic component of it. Note that a characteristic component need not be an essential component, nor do we need to suppose that being angry necessarily requires showing one’s anger through behavior. So the present suggestion can be divorced from logical behaviorism.

\textsuperscript{36} Of course, not all perception-enabling showing is expression. Suppose I point to my child’s beaming smile so you can see how much she’s enjoying herself. Though my gesture allows you to see a state of mind of my child – her pleasure – I haven’t expressed the child’s pleasure; she has (through her smile). Or suppose I roll up my sleeve to expose
On my view, the expressive performances of nonhuman animals do not employ expressive vehicles that have structured propositional meaning. The behavior is not to be construed as a saying that the expresser is in a state with specific characteristics. Naturally expressive performances do not express in Sellars’ semantic sense propositions, since there is no conventional, representational relation between, say, facial expressions or bodily gestures and such propositions or concepts. A yelp or a grimace — unlike the English sentence “This hurts!” — does not semantically express a proposition. Nonetheless, expressive behavior can directly reveal various aspects of expressed states of mind. It's the complexity and texture of animals’ expressive behavior, I believe, that renders it especially apt for illuminating the emergence of propositional thought and language.

2.2 Animals’ Expressive Communication

The literature on the biology of communication is rife with examples of animal signals that convey detailed information about biologically significant attributes of the signaler, such as size, sexual readiness, overall fitness, or fighting ability, without requiring any intentions on the signaler’s part. (Examples include tiger scratch marks, spider web vibrations, peacocks’ tail displays, sexual swellings, birdsongs, and so on.) Many animals leave scents behind. Dolphins produce idiosyncratic ‘signature whistles’ that allow conspecifics to identify them. But on the view of expressive communication I’ve sketched, human and nonhuman facial contortions, bodily gestures and demeanors, and various vocalizations don’t — or don’t merely — convey information about the producer’s identity, and various biologically significant attributes. Acts of expressive communication often involve an overt gaze direction, head tilt, or distinctive bodily orientation, guiding the receiver’s attention not only to the expressive agent’s affective state but also to the object of that state — the source or target of the relevant state. An aggression growl not only indicates its producer’s fighting prowess, but also reveals a specific target, and the growler’s readiness to defend if challenged. A dog’s cowering demeanor upon encountering another will show to a suitably endowed recipient the dog’s fear (kind of state), how afraid it is (quality/degree of state), of whom it is afraid (the state’s intentional object), and how it is disposed to act — e.g., slink away from the threat (the state’s dispositional ‘profile’). Similarly for canine play bows. A vervet monkey’s alarm call not only indicates the presence of, say, an aerial predator, but also shows the caller’s fear of the predator, thereby moving others to act in a particular way so as to avoid the threat. These sorts of performances are Janus-faced: they point inward — to the animal’s expressed state of agitation, fear, anger, etc. — at the same time as they point outward — toward the object or event at which the state is

a sunburn on my arm, or I hand you a stethoscope so you can hear my heart-murmur. Here I do things that enable you to perceive conditions I am in. But I haven’t expressed those conditions. In these cases, though, the behavior that allegedly enables perception of the relevant state is in no way typical or characteristic of being in that state. My (or anyone’s) pointing to my child (or anyone’s) smile is in no way part of what in general enables the perception of an individual’s pleasure. (And, obviously, such ‘third-party’ pointing isn’t part of anyone’s feeling pleasure, unlike smiling, which is arguably a characteristic component of feeling pleasure.) Similarly, even if my rolling up my sleeve is what enables you in a particular instance to see my sunburn, my (or anyone’s) rolling up a sleeve to expose the sunburn is in no way required in general for the perception of sunburns; indeed, in this case, no behavior is required. (There’s a completely external relation between the behavior that enables you to perceive the state and the state shown.)

This meshes well with reflections on the role naturally expressive behavior plays in the lives of creatures capable of it. Arguably, such behavior is effective when it meets with immediate and appropriate reactions on the part of the designated audience, which are likely to ensue if the behavior enables perception as opposed to, say, inference about hidden causes of behavior.


For an excellent discussion, see Maynard Smith and Harper, Animal Signals.


directed. And they reveal the relevant behavior’s cause or motivation at the same time as they foretell the expresser’s impending behavior and move others to respond appropriately.42

We can discern several dimensions in the communicative complexity of expressive signals: psychological, semantic, pragmatic. As suggested above, in contrast with automatic behavioral reactions and physiological symptoms, insofar as expressive signals (as we may call them) point to a relevant worldly object or state of affairs, they exhibit a referential dimension. As ethologist Peter Marler remarks, a bird’s call coupled with ‘head-pointing or gaze direction’ specifies “a certain object or point in space or particular group member”43 Marler and others have suggested that animal calls are (as they put it) “both emotional and referential”.44 In addition to their referential dimension, the acoustic intensity of alarm calls, which is often closely (and systematically) associated with the perceived level of predator danger,45 can be seen as a forerunner of a predicative dimension of certain linguistic utterances. A loud eagle alarm call is a bit like “Eagle here!” uttered in an urgent tone of voice in spontaneous response to the appearance of a threatening eagle, whereas a softer call is a bit like “Eagle nearby.”46

Inasmuch as expressive signals are keyed to objects and features of an animal’s environment as apprehended (or ‘psychologically filtered’, if you will) by the animal, they contrast with automatic physiological reactions, and may be said to exhibit a measure of intentionality or subjective directedness, even if not produced intentionally. And in contrast with perceptual and other, more passive states, which are also often said to exhibit intentionality, expressive communication has an additional active aspect, embodying a certain dimension of agency. A creature giving behavioral expression to a present state of mind often shows designated receivers not only how he is disposed to act, but also how they should act or what to do. (For example, as a scared animal cowers away from a threat, or bows playfully, a like-minded witness will be moved to do likewise.) Moreover, unlike rote, automatic, instinctive, or reflexive behaviors, expressive behaviors of a wide range of animal species can be brought under voluntary control, intensified or toned down.47 Such control clearly foreshadows the sorts of intentional production of which humans are capable.

Expressive signals inherit their complexity from the complexity of the expressed psychological states. But note that to say that a psychological state exhibits complexity along several dimensions is not to say that it has recombinable parts or components that correspond to the dimensions or aspects of complexity. As Sellars helpfully observes, a single state, which may not have any distinct parts or components corresponding to referential or predicative parts of speech, may nevertheless have both a predicative and a characterizing function by virtue of its multiple aspects rather than its distinct parts.48 The relevant psychological states could

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42 For an early occurrence of the idea that expressive behavior shows what’s within while pointing to what’s without, see Alan Tormey, The Concept of Expression (Princeton, NJ: Princeton University Press, 1971), pp. 27f. and passim.

The Janus-face character discussed here is different from the dual force ascribed by Millikan to ‘pushmi-pullyu’ representations; see “On Reading Signs: Some Differences between Us and Other,” and Varieties of Meaning: The 2002 Jean-Nicod Lectures (Cambridge, MA: MIT Press, 2004).


46 See Cheney and Seyfarth, Baboon Metaphysics, p. 221.

47 There is considerable experimental evidence that the production of alarm and other calls, as well as other expressively communicative gestures, can be brought under control in all primates, many mammals, and even birds; there is also evidence of various flexible ‘audience effects’ in the production of calls in a number of species. (See Fitch, op. cit., section 4.9.3, Snowdon, “Contextually Flexible Communication in Nonhuman Primates,” and Bar-On “Origins of Meaning”, Section 4.

48 To illustrate, suppose ‘а’ refers to a, ‘b’ to b, italicization represents something as red, bold font represents something as blue and one symbol being to the left of the other represents its being larger than the other. On Sellars suggestion, the complex symbol “аb” shares the propositional but not the logical (compositional) form of the sentence.
be understood as *non-propositional* affective and action-guiding states that are *directed at* (or are ‘about’) certain environmental objects: fear of x, anger/excitement at y, attending to z. However, these *propositional* attitudes—as you might call them—can be usefully thought as prefiguring the propositional attitudes, rather than being purely ‘enacted’, wholly nonrepresentational, dynamic states of an organism embodied in its physical environment. And, importantly, to the extent that expressive signals transparently reveal aspects of the complex states they express, their use in communication can be seen as foreshadowing the use of articulate, *linguistic* vehicles, despite the fact that they, like the states they are used to express, lack *composite structure*.

### 3. Expressive Communication and Intermediate Triangulation

Continuity skeptics often mention animals’ affective displays (and in particular alarm calls) only to dismiss them as candidate forerunners of the symbolic utterances used in linguistic communication. Yet we saw that even the affective displays of Marler’s birds go beyond merely instinctive or reflexive behavior designed to transmit information to designated consumers. Though these displays are not always instances of learned behavior, and though (we may assume) they are not produced with elaborate communicative intentions, they form part of an intricate web of world-directed intersubjective interactions, and possess features that foreshadow certain semantic and pragmatic aspects of linguistic communication. Furthermore, the intricate interactions involving the production and uptake of world-directed, action-guiding expressive behavior can give rise to a wide range of mismatches that go beyond mere behavioral discord, and embody a kind of disagreement that can ground incipient *objectivity* (in Davidson’s sense). This is so, despite the fact that the uptake of expressive behavior is *not* dependent upon a rational inference or *metarepresentational* interpretation.

Elsewhere, I’ve argued that animals’ expressive communication is best thought of as a form of *social, intersubjective, world-directed* communicative behavior that is designed by *nature* (as opposed to being designed through individual intention or culture) to show the presence and character of expressers’ states of mind to suitably endowed observers, so as to move them to act in appropriate ways (toward the expresser or the object of her expressed state), in part by foretelling the expresser’s impending behavior. "Thinking diachronically, and given this conception, the domain of animals’ expressive communication is the right domain in which to find viable natural precursors of objective thought and propositional language. These precursors are intersubjective communicative interactions that go beyond the merely discriminative, responsive behaviors of pure triangulation, but they do not depend on crediting the relevant subjects with language-like propositional thought. Yet they do exhibit forerunners of significant semantic, pragmatic, intentional, and objective features of propositional thought and linguistic utterances.

The idea (developed more fully elsewhere) is, briefly, this. Suppose, for example, that S1 produces an alarm call, which is naturally designed to show conspecifics, S2 included, his imminent flight from some specific type of nearby threat (some predator O), so as to encourage S2 to do the same. Having observed the behavior, S2 is in a position to respond to it in some way that is not only responsive to the presence of O (as indicated by the behavior) but is also anticipatory of S1’s subsequent behavior. Instead of also fleeing, for example, S2 may, upon hearing the alarm call and spying no predator, respond to S1’s alarm call by, say, "Red a is larger than blue b". (See Jay Rosenberg, *Wilfrid Sellars: Fusing the Images* (Oxford: Oxford University Press, 2007), pp. 10ff.)

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49 Tormey, op. cit., pp. 10f. speaks (somewhat misleadingly) of the ‘prepositional object’ of, e.g., being fascinated *by* centaurs by designating the state’s intentional objects.


51 See Bar-On and Green (2010), “Lionspeak”.


53 For fuller discussion, see Bar-On and Priselac, “Triangulation and the Beasts”.

54 We need not attribute to S1 and S2 the concept PREDATOR, but only whatever discriminatory dispositions vis-à-vis O that Davidson allows subjects to have in pure triangulation. See again, e.g., Davidson, “Externalisms,” pp. 12-13, and *Subjective, Intersubjective, Objective*, pp. 117ff.
moving toward S1 to consume S1’s soon-to-be-abandoned meal. When S1’s O-behavior betrays his impending flight, the possibility opens for S2’s response to the behavior to match it or not, depending on whether or not S2’s response is itself a bit of behavior appropriate to the presence of O. S2’s behavior departs both from S1’s (anticipated) behavior and from the appropriate responsive behavior; and it can be said to embody O-related disagreement with S1’s behavior. Here it looks as though S2 is treating S1’s O-related behavior as separable from the (imminent) presence of O (as assessed by S2). S2 is keeping two distinct but simultaneous tabs, as it were, on the world and on S1’s reaction to it. The right space seems to be open for crediting S2 with treating S1 as having his own take on the situation. For O is no longer merely an external cause serving as a point of intersection of S1 and S2’s discriminatory responses; nor is S1’s behavior treated merely as a natural O-indicator by S2. Instead, S2’s responsive behavior is one that takes account of what amounts to S1’s getting things wrong (from S2’s perspective). (If you will, S2 minds a gap between S1’s take and how things are).

These sorts of interactions, which are evidenced in the behavior of existing nonhuman animals, indicate what sort of scenario a proponent of continuity can interpose diachronically between Davidson’s pure and reflective triangulations—what we may call ‘intermediate triangulation’. Intermediate triangulation is poised between the ‘thin’, pure case, in which S2 simply responds or fails to respond to S1’s O-behavior with her own O-behavior, on the one hand, and the ‘thick’, reflective case in which S2 judges that S1’s O-behavior is incorrect (specifically, that S1 has uttered a false sentence, betraying a false belief), on the other hand. Intermediate triangulation features object-centered intersubjective interactions. It allows for a kind of intersubjective disagreement that does not presuppose reflective grasp of objectivity or possession of intentional concepts on the part of the relevant subjects. So it’s clearly different from the thick, reflective case. But it’s also different from the thin case. To see the crucial difference, recall that, on the expresser’s side, expressive behavior shows the affective state the expresser is in partly by revealing how he, S1, is prepared to react in light of O’s presence. Faced with S1’s expressive performance, the observer, S2, can anticipate not only O’s presence, but also the behavior on S1’s part that the performance foretells. In that sense, S2 is responding to S1’s expressive performance as O-centered behavior. Moreover, since expressive behavior also has the function of moving suitably attuned observers to behave in certain ways, proper uptake of S1’s expressive behavior requires a certain O-related reaction on S2’s part. This interlocking of O-centered intersubjective interactions makes room for a broader range of intersubjective mismatches/disagreements than Davidson allows in the pure case.

Figure 3 ‘Intermediate’ Triangulation

The above scenario (like the Davidsonian ones after which it is modeled) is an imaginary one. But recent observations of animals’ intersubjective interactions in the wild, as well as in captivity, and controlled experiments comparing the behaviors of higher primates and prelinguistic children, suggest that intermediate triangulation is be more than mere fiction. And, although there is much disagreement among researchers

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regarding the degree to which the relevant interactions resemble adult human transactions, it is uniformly agreed that the interactions do not admit of any simple explanation in terms of conditioned reflexes, innate or species-wide signaling, or learning history. (Just for one example, Crockford et al.\textsuperscript{56} report recent triangulation-relevant experiments with chimpanzees in the wild, who emit snake calls highly selectively, exhibiting fine-tuned sensitivity to whether or not the call receivers have themselves seen the snake, whether they have previously been within earshot of the call, how far away they are relative to the caller, and how affiliated they are with the caller. While it may be debatable whether the callers are ‘mindreaders’ who ‘assess the state of knowledge’ of the receivers (as the authors suggest), it seems undeniable that the callers are highly attuned, specifically, to other subjects’ attention to – as well as impending behavior toward – a salient object of potential mutual interest or significance, as evidenced by the intricate pattern of their call production. And the call receivers are moved to take specific actions to avoid a threat that is perceived by the caller but invisible to them and of which the call informs them, carefully skirting the path where the threat (and the caller) is located.\textsuperscript{57}

A committed continuity skeptic could no doubt insist that the interactions involved in intermediate triangulation, just like those in its predecessor, pure triangulation, only merit purely behavioral, or behavioral-environmental, and at any rate non-intentional characterizations.\textsuperscript{58} The obvious response to this will be to point out that the same is true of reflexive triangulation. There is nothing to prevent a wholesale skeptic from redescribing intersubjective linguistic interactions in terms that leave it open whether the subjects involved are really minded, or really treat each other as minded subjects. Simply to invoke the possibility of redescription is to land in yet another kind of skepticism – a version of other minds skepticism – which is, in fact, even more radical than continuity skepticism. (It would require not only denying that the ‘light’ of mindedness ‘gradually dawns over the whole’ –borrowing from Wittgenstein – but also accepting that the lights are out everywhere, so to speak.) Insisting that the animal case must be treated entirely differently from the linguistic case would either be question-begging or require a separate, substantial defense. (Other-minds skepticism would, in any event, seem anathema to the anti-Cartesian philosophy of mind held by the continuity skeptics discussed here.)

4. Continuity Skepticism and Mind-mind Dualism

Let us take stock. I have here been concerned with a particular, ‘diachronic’ version of the view that the minds of nonhuman animals and our minds are separated by an unbridgeable gap – what I’ve referred to as continuity skepticism. As I see it, this version of the claim is unacceptably radical; and I tried to show why it should – and how it could – be rejected, even accepting (as I in fact do) that there are important qualitative differences between the minds of the nonhuman animals around us and our own. My strategy was to present a vivid challenge: to explain how the diachronic gap between us and our nonhuman ancestors could have

\textsuperscript{55} Bermudez, “Mindreading in the animal kingdom,” in Robert Lurz, ed., The Philosophy of Animal Minds (Cambridge University Press, 2009), pp. 145-164. Several of these authors offer congenial construals of intersubjective interactions in perception-like terms (as opposed to the terms of so-called ‘theory of mind’), not only among animals and prelinguistic children but also among adult human beings. See Robert Lurz, Mind Reading Animals (Cambridge, MA: Cambridge University Press, 2011) for discussion of existing experiments and proposed experimental protocols for testing the ‘mindreading’ abilities of animals and prelinguistic children.


\textsuperscript{57} Also of some relevance are experiments showing that, for example, Capuchin monkeys “when shown a grasping hand disappear behind a screen without having been shown if there is or not anything behind the screen” are ‘surprised’ “if upon lifting the screen, no object was found behind” (where surprise is measured using standard criteria applied to preverbal infants) (Gomez 2009: 195).

\textsuperscript{58} Davidson, for example, does sometimes suggest that it may be only ignorance that prevents us from explaining the behavior of non-linguistic creatures in non-intentional vocabulary: “it is only necessary to reflect that someone might easily have no better or alternative way of explaining the movements of a heat-seeking missile than to suppose the missile wanted to destroy an airplane and believed it could by moving in the way it was observed to move.” (Subjective, Intersubjective, Objective, p. 102).
been bridged, given the palpable synchronic distance separating us from existing nonhuman animals. Thinking in terms of Davidson's sharply contrasting triangles, the challenge was to try to draw the outlines of a bridge across the diachronic gap without either underestimating the rich character of linguistic interactions in reflective triangulation or overestimating the power of non-linguistic interactions in pure triangulation.

The 'straight' response to the skeptic that I've offered is different from representationalist responses on offer, since I have not assumed that creatures engaged in what Davidson describes as 'pure triangulation' already have the wherewithal for the kind of objective thought that intersubjectively engaged language speakers are capable of. Intermediate triangulation, as I have characterized it, is the prerogative of creatures capable of a special kind of socially minded, intersubjective, world-directed engagements and interactions that, however, don't yet exhibit all the key trappings of human objective, reflective thought. At the same time, I have argued that, properly construed, expressive communication of the sort we share with existing nonhuman animals does possess characteristics that foreshadow the sort of linguistic communication of which creatures like us are capable. It is thus apt to aid us in our search for a diachronic bridge connecting parts of the minded, though unreflective animal world with the reflectively minded parts that we humans now occupy.

[TO BE CONTINUED]

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59 [Differences from Bermudez' proposed intermediate position]