Crude Meaning, Brute Thought (or: What *Are* They Thinking?!)

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Abstract: I address here the question what sense to make of the idea that there can be thought prior to language (both in ontogeny and among nonlinguistic animals). I begin by juxtaposing two familiar and influential philosophical views – one associated with the work of Paul Grice, the other associated with the work of Donald Davidson. Grice and Davidson share a broad, *rationalist* perspective on language and thought, but they endorse conflicting theses on the relation between them. Whereas, for Grice, thought of an especially complex sort is a *precondition* of linguistic meaning, for Davidson, there can be *no* genuine thought without language. I argue that both views present us with unpalatable alternatives concerning our understanding of the *natural origins* of objective thought and meaningful language. Drawing on what I take to be key insights from Grice and Davidson, I then lay out some broad desiderata for an intermediate position. I finally turn to a certain form of nonlinguistic communication of the sort of which both prelinguistic children and languageless animals are capable – viz., expressive communication. I propose that a proper appreciation of the character and function of expressive communication can help us trace the outlines of the desired intermediate position.

My topic in this paper is the relation between language and thought. It concerns, more specifically, the question what sense to make of the (increasingly compelling) idea that there can be thought prior to language, both in ontogeny and among nonlinguistic animals. My starting point will be two familiar and influential philosophical views on the relation between thought and language – one associated with the work of Paul Grice, the other associated with the work of Donald Davidson. Proper treatment of my topic requires a deeply interdisciplinary investigation, drawing on insights and findings from linguistics, cognitive science, and comparative psychology, among others. My modest aim here will be to provide a philosophical prolegomenon of sorts to this investigation.

I begin with a brief characterization of certain contrasts, alongside some similarities, between Grice and Davidson. As we will see, although Grice and Davidson share a broad,

rationalist perspective on language and thought, they endorse conflicting theses on the relation between them. Roughly, whereas, on the Gricean view, thought of an especially complex sort is a *precondition* of linguistic meaning, on the Davidsonian view, there can be *no* (genuine) thought without language. I will argue that, from an evolutionary perspective, both views present us with unpalatable alternatives concerning our understanding of the *natural origins* of objective thought and meaningful language. And this clearly motivates a need for a viable intermediate position between the two poles they represent.

In Section II, I draw on what I take to be key insights from Grice and Davidson to lay out some broad desiderata for such an intermediate position. I also indicate very briefly why I believe that several existing proposals that have rejected various aspects of the linguistic rationalism shared by Grice and Davidson fail to meet these desiderata. In the final section (III), I turn to certain forms of nonlinguistic communication of the sort of which both prelinguistic children and languageless animals are capable – viz., expressive communication. I propose that a proper appreciation of the character and function of expressive communication can help us mark the contours of the desired intermediate position. More detailed development of the position is left for future work.

I Language and Thought: Grice *oder* Davidson?

I.1 Grice: Thought Before Language

In his seminal article "Meaning" (1957), Grice provided an analysis of linguistic meaning in terms of certain psychological states of speakers who produce meaningful utterances. Grice began by distinguishing what he called 'nonnatural meaning' from *natural* meaning – the kind of significance possessed by natural signs that are *reliable indicators* of various conditions they are correlated with. Grice proposed to *analyze* the meaning

possessed by public, conventional signs (such as words and sentences) in terms of regularities in *speaker meaning*, which he in turn analyzed in terms of a speaker making a sound or gesture *intending to produce some effect in an audience*, specifically, by means of the audience's *recognizing* that very intention. Grice's distinctive contribution was the proposal that speaker meaning could be analyzed in non-semantic, *psychological* terms. If successful, this reduction of the semantic to the psychological could pave the way for a second reduction, of psychological to nonpsychological properties, as part of the project of 'naturalizing' intentionality, which was undertaken by some of Grice's followers.[1] Grice himself, however, would have no truck with the project of 'naturalizing' intentionality. Like Davidson, and other '*language rationalists*' (such as Sellars, Brandom, and McDowell), Grice did not think there was any hope for understanding the psychological in nonpsychological, 'natural' terms.[2]

> The Gricean analysis of meaning assumes what I will call Grice's **Priority Thesis**: Propositionally contentful mental states have priority – both conceptually and in the order of emergence – over propositionally meaningful linguistic utterances.

Grice assumes, specifically, that speakers' other-directed self-referential communicative intentions are explanatorily prior to nonnaturally meaningful utterances. This has been regarded as deeply problematic by philosophers of language and mind (though a number of psychologists, linguists, ethologists, computer scientists and others interested in the

[1] For earlier naturalist proponents of 'Intention-Based Semantics' see e.g. Fodor (1975) and Schiffer (1972). Other philosophers who have sought to naturalize intentionality – such as Dretske (1995) and Millikan (1984, 2004b) – have rejected out of hand the Gricean idea that meaning should be analyzed in terms of speaker intentions.

[2] For discussion, see Bar-On (1995). On the language rationalist view, the rules governing linguistic meaning are *normative, rational* rules, even if they are not *prescriptive*; and such rules cannot be aptly characterized purely in terms of causal regularities in the behaviors of physical systems. See below.

relation between language and mind continue to embrace it). For our present purposes, the problematic character of this thesis can be best appreciated when viewing Grice's account of nonnatural meaning from a quasi-evolutionary perspective. Thus viewed, the account purports to explain how signs with nonnatural meaning could arise in a world populated with only natural signs (such as dark clouds and deer tracks).

Addressing this issue, in a paper titled "Meaning Revisited" (1989), Grice imagines a creature, X, who produces voluntarily behavior – say, a yelp – whose nonvoluntary production would be a natural sign that X is in some state (pain) *in order to get his audience, Y, to come to think he's in pain*. Grice then envisages several additional stages, each of which adds a layer of complexity to X and Y's communicative interactions in the familiar Gricean way. At the final stage, we have X producing a bit of behavior or device that is *not* a natural sign of X's state, but is more loosely connected to the message he intends to convey, relying on Y's ability to recognize his intention, in a way that satisfies Grice's conditions on speaker meaning. (And we could then perhaps envisage a series of stages through which a more or less stable repertoire of such communicative vehicles develops and propagates across a given population of speakers, yielding a conventional system of communication.)[3]

The Gricean 'Myth of X' exploits the idea that successful communication does not require that there already be in place a system of conventional signs with meanings shared between speaker and interpreter. Like Davidson, Grice does not take it to be necessary for successful communication that speakers and hearers be members of a social group that shares linguistic rules or conventions. Both Grice and Davidson take linguistic meaning to

[3] Grice's 'Myth of X' is the subject of Bar-On (1995). See also Bar-On and Green (2010).

be social only in this limited sense: successful meaningful communication requires certain interactions between a speaker and a hearer; it is *intersubjective*, but does not require a *social group*.

However, Grice's Myth of X also clearly presupposes the above-mentioned Priority Thesis, which sets Grice sharply apart from Davidson. For the Myth assumes that, prior to the emergence of language, our creature X could have – and her audience could discern – very complex ('nested') other-directed intentions. (Making manifest such intentions to an audience that is presumed capable of deciphering them is what is supposed by Grice to *endow* utterances with speaker meaning.) Now, Grice's Myth was clearly an arm-chair 'just-so' story. But it is notable that the Gricean version of the Priority Thesis is very much in play in several, more empirically oriented, contemporary accounts of the origins of language. These 'post-Gricean' accounts explicitly maintain that the psychological capacity for 'mindreading' of the sort manifested in (and required for) issuing utterances with speaker meaning is the key evolutionary innovation that had to be in place before linguistic communication as we know it could emerge. For example, Origgi and Sperber claim that, since human verbal communication as we know it "is never a matter of mere decoding," this "implies that language as we know it developed as an adaptation in a species already involved in inferential communication, and therefore already capable of some serious degree of mindreading ..."; "the existence of mindreading in our ancestors was a precondition for the emergence and evolution of language" (2000: 20). (The ancestral 'mindreading' of which Origgi and Sperber speak is to be construed in terms of speakers

forming fully propositional communicative intentions and hearers drawing inferences about those intentions).[4]

I.2 Davidson: Thought and Language as Interlocking

So: the Gricean approach supposes that, prior to the emergence of linguistic systems with encoded symbolic meanings, there could be creatures capable of thoughts, beliefs, intentions, and other psychological states evidently with full-dress, structured – indeed, recursive – conceptual-propositional contents. By contrast, on Davidson's view, there can be *no* intelligible assignment of conceptual-propositional contents independently of the interpretation of a speaker's *linguistic* utterances. Davidson agrees with Grice on the central role of *intention* in the production and interpretation of meaningful linguistic utterances.[5] However, he has argued at length that intentional communication is only possible when speaker and hearer each *already* possesses language (even if not necessarily the *same* language).[6]

Early on, Davidson argued against Grice's reductive analysis of meaning that we can make no sense of attributing to a speaker detailed intentions of the sort needed for the analysis independently of detailed systematic interpretation of the speaker's *linguistic* utterances. And in several later articles, Davidson argued more generally that propositional

[4] Several other theorists of language evolution share this view concerning the necessity of a Gricean 'psychological infrastructure' for the emergence of human linguistic communication. For discussion and references, see Bar-On (2013a) and (2017). For a recent, explicit appeal to this idea, see Thom Scott-Phillips (2014). Scott-Phillips's post-Gricean account of the evolution of language directly derives from Wilson and Sperber's and Origgi and Sperber's; however, it incurs several more problematic commitments than theirs.

[5] See e.g. Davidson (1990: 311) and (1994: 12). For additional references, see Bar-On and Priselac (2011) and Bar-On (2016).

[6] Sellarsian language rationalists likewise point out that our understanding of contentful psychological states is *parasitic* on our understanding of the semantic properties of paradigmatically linguistic utterances; and that the assignment of contents to states of nonlinguistic creatures is at best a matter of 'metaphorical extension'. For references, see Bar-On (2013b) and (2017).

attitudes – beliefs, intentions, wants, hopes, and so on, but also sentiments and emotions – are essentially individuated via their propositional contents.[7] But, Davidson argues, the notion of a specific propositional content – content composed out of specific conceptual ingredients – only makes sense against the background of a network of semantic similarities and contrasts – essentially the *same* kind of network that allows us to compare and contrast the meanings of sentences in *language*.[8]

Davidson thus clearly rejects Grice's Priority Thesis. For him,

> Thought is inextricably intertwined with language. There can be no contentful thought without meaningful language.

He thus denies that we could credit languageless subjects with contentful intentions and other propositional attitudes.[9]

Correlatively, Davidson explicitly denies that we can sensibly envisage a scenario (or trajectory) for the *emergence* of our capacity for language and thought as *in nature*.

> 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, everything in the universe and its history can in principle be described in the language of physics, and so each stage in the emergence of thought can be described in physical terms. But this will fail as an explanation of the emergence of

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[7] For example, if you believe *that things are getting out of control in Washington*, the psychological state you are in is necessarily a state that has that content; similarly, you can't be afraid *that things will only get worse* without being in a state that has *that specific content*. More controversially, Davidson has maintained that e.g. being afraid of a burglar must bottom out in the attitude of being afraid that ... (for some specific proposition(s) that would serve to specify the content of one's fear).

[8] See, e.g., Davidson (2001: 125) and (1974: 322). For some discussion, see Lepore & Ludwig (2005: esp. Ch. 22).

[9] See Bar-On and Priselac (2011) and Bar-On (2016). For a recent defense of a version of this Davidsonian claim, by 'radical enactivists', see Hutto and Myin (2017).

> 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...What we lack is a satisfactory vocabulary for describing the intermediate steps." (2001: 127)

The result is what may be called *continuity skepticism*: roughly, the claim that our human thought and language have no intelligible natural history.[10]

Interestingly, Davidson defends his skepticism concerning emergence by appeal to several ideas that (at least at a suitable level of abstraction) he in fact shares with Grice.

1. Human thoughts and meaningful linguistic utterances necessarily possess *objective* content – they can be "true or false independent (...) of the existence of the thought or the thinker" (2001: 130). Entertaining thoughts with objective content 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. Objective thought and meaning, as Davidson sometimes puts it, has *irreducibly normative character.*

→ *Irreducibility*

2. But, like Sellarsian language rationalists, Davidson 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

[10] See Bar-On (2013b). Continuity skepticism, we should note, is not just within the purview of skeptical philosophers of language and mind; the Chomskian view on the evolution of language (recently spelled out in Berwick and Chomsky 2016) has striking points of contact with aspects of Davidson's skeptical view. (Yet this work also expresses commitment to Priority.)

true or false and that one may be wrong." Thus, *having* objective thought requires the thinker to have an awareness or *grasp of objectivity*.[11]

→ *Grasp*

3. Grasp of the relevant notion of objectivity, in turn, requires *intersubjectivity* – it requires understanding of the idea of *another subject's take*. This is the upshot of Davidson's *triangulation* – the idea that contentful thought about an objective world, as well as meaningful 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 (2001: 121).

→ *'Intersubjectivity'*

4. However, the relevant intersubjective interactions must go beyond what Davidson dubs *'pure'* triangulation, where two non-linguistic subjects (S1 and S2) respond to some object O, and even to each other's responses to O. What we do *not* have in pure triangulation is one subject treating another *as a* subject who has a *take* on the world, which can *fit or fail to fit* with the way things are. For reasons I will not go into here, Davidson think that this condition can *only* be met in 'reflective triangulation', where S1 and S2 are both *language speakers* (though they need not speak the *same* language), who *intentionally* produce utterances in response to perceived occurrences in the world, which they can both interpret in light of what they perceive. In this type of situation, genuine objectivity is provided for via

[11] 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 (1994: 63) and McDowell (1996: 114ff.). Tyler Burge (2010, especially chapter 2) 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. For discussion, see Bar-On (2013b) and (2018).

the possibility of S1 recognizing a *gap* between what S2 *holds* to be true and what S1 herself takes to be the case (or vice versa).[12]

→ *'Reflective Interpretation'*

The above four claims embody what I have been referring to as the *rationalist* conception of language, which identifies a constitutive link between the notion of contentful thought and the idea of *rational agents*, capable of conceiving the world in objective terms and subject to intersubjective norms. Like Grice and other language rationalists, Davidson takes objective thought to be the prerogative of agents who are *self*-conscious, and capable of intentional as well as rational action that is interpreted through inferential attributions of beliefs and desires. And, like Grice, he takes contentful objective thought to be made intelligible only against the background of metarepresentational, normatively governed, intentional-interpretive communicative interactions.

At the same time, as we saw earlier, a key disagreement between Grice and Davidson remains. Grice endorses a strong version of the Priority Thesis, whereas Davidson is committed to an out-and-out rejection of it. And with that disagreement, as we saw, Grice accepts, while Davidson rejects, the possibility of understanding the *emergence* of distinctively human thought and language. In light of our discussion, we can see Davidson as juxtaposing with Grice's Priority Thesis what I will label the Parity Thesis, to wit:

> There is full parity between the contents of thoughts and the meanings of utterances used to communicate those thoughts.

[12] See Davidson (2001: 130).

(Or, to put it in terms of attribution: thought contents can only be attributed to a subject simultaneously with assigning meanings to their linguistic utterances.)

II. Languageless Thought: An Intermediate Position?

It looks like, when it comes to the possibility of languageless thought and the natural origins of human language, Davidson and Grice have us caught between a rock and a hard place. Davidson's continuity skepticism amounts to the implausibly extreme view that our mature thought and linguistic communication could have no intelligible natural history. Given what Davidson regards as an unbridgeable chasm between pure and reflective triangulation, he maintains that there could be *no* intermediate case between the two – any candidate for such an intermediate would either collapse into the pure case or have to be understood in fully reflective terms. But suppose one were to agree with Davidson that our attributions of contentful thoughts to mature humans is inseparable from our interpretation of their speech. Suppose, moreover, we were to accept that there are principled difficulties with crediting *existing* nonhuman animals and prelinguistic children with contentful, objective, conceptual-propositional thought. Even so, it simply does not follow that there could be no legitimate *predecessors* of mature human thought and linguistic communication in both ontogeny and phylogeny. Yet this is precisely what Davidson's skepticism entails.

However, the Gricean view is scarcely less difficult to accept, for it implies the possibility of complex thought that is very language-*like* (in being conceptual, propositional-compositional, and recursive) in advance of language. Thinking in terms of Davidson's sharply contrasting triangles, the difficulty with the Gricean (and post-Gricean) emergence story is that it illicitly presupposes capacities that can only become possible in reflective

triangulation. Even if this is not deemed incoherent, it should seem highly problematic from an evolutionary perspective. For it would present us with a puzzle concerning our natural history that is completely of a piece with the puzzle of the origins of language – that is, the puzzle of the origins of a *language-like thought*.

This sort of dialectics cries out for a sensible middle position. My aim in the rest of the paper will be to try to motivate a certain conception of what we should expect from such a position. I submit that, if we are to reject Davidson's skeptical view concerning the natural origins of our own capacities for thought and linguistic communication, then a certain version of Grice's Priority Thesis is mandatory. To put it in Davidsonian terms, it is incumbent upon us to spell out conditions that must be met in what we may call "intermediate triangulation". In intermediate triangulation, languageless subjects – predecessors of the adult rational beings that we are – could be credited with *some* thought whose features can help explain the emergence of significant features of our thought – notably, its objectivity and conceptual-propositional structure. In other words, in the intermediate case is to be found languageless thought that is apt to *foreshadow* mature human thought.[13] At the same time, if we are to meet Davidson's skeptical challenge, the languageless thought with which we credit subjects in intermediate triangulation must not be *already* understood in terms of the thinking and linguistic capacities of mature human beings. (In particular, subjects in intermediate triangulation should not to be credited with a capacity for Gricean thoughts and reflective interpretation.) In other words, in the

[13] Hutto and Satne (2017) argue – against Bar-On 2013b – that one can accept (what are in effect) the key Davidsonian claims while escaping continuity skepticism. See below, note 24.

intermediate case is to be found languageless thought that does not yet fully *exemplify* mature human capacities.

So, on the tempered version of Grice's Priority Thesis I am now considering, it is possible for there to be what can be described as *brute* languageless thought that *foreshadows without yet exemplifying* key features of our own thoughts. But what are brute thoughts like? At this point, I would like to approach the question indirectly, by turning to Davidson's Parity Thesis. As spelled out earlier, the Parity Thesis says, in effect, that a subject's thought contents should be supposed to *mirror* the meanings of that which paradigmatically articulate them, namely, linguistic utterances. Yet in the close vicinity lies a generalized version of Parity, which says something more modest: that the contents of subjects' states of mind cannot outrun what is afforded by *their* means of communicating those states (*whatever those means are*). (Or, to put it in terms of attribution: the contents we attribute to a subject's thoughts should not go beyond the meanings we can assign to their communicative utterances.) We can, then, take Parity's core claim to be just that there is a 'tight fit' between the contents of creatures' thoughts and the means of articulating them that are deployed in the creatures' communicative practices.

Note that generalized Parity does not rule out languageless thought. It clearly rules out *language-like* languageless thought, and it rules out thought that goes beyond a subject's means of communicating the thought. But it appears to make room for what I earlier called *brute* thoughts, so long as such thoughts are not *incommunicable* (for the thinker). The contents and structure of brute thoughts, we could suppose, are to be individuated in terms of the *crude meanings* that can be assigned to the *nonlinguistic* utterances that serve to communicate them. Thus, there is a certain tight fit between available *vehicles* of thought

and communication. The idea here is that what is communicatively available to a creature constrains the *repertoire* of thought elements and their structure. This means that the structure and content of what is thinkable by a creature cannot go beyond the structure and content of what the creature can communicate. However, this does *not* mean that all of a creature's thought *will* be in fact communicated. A given repertoire of thought elements can be deployed in 'silent', uncommunicated thought episodes. (So Parity does not commit one to a behaviorist view of thought.)

It is reasonable to wonder what motivation there might be for embracing even the more modest version of Parity. After all, it might be thought that, Davidsonian considerations notwithstanding, there is ample evidence that languageless and prelinguistic creatures can engage in thought whose complexity and sophistication far exceeds anything evidenced in their communicative behaviors.[14]

An independent defense of Parity goes beyond my scope here. But I wish to make the following comments. First, what is at issue regarding Parity is not the complexity or sophistication of languageless thoughts but their contents and form of articulation (or 'format'). Perceptual processes are surely highly complex, but it is commonplace to question to what extent perceptions (or perceptual experiences) should be assimilated to conceptual-propositional thought.[15] A proponent of Parity can consistently allow that languageless creatures undergo highly complex perceptual *and* cognitive processes, yet they

[14] See, e.g., Cheney and Seyfarth (2007) and Hurford (2007). Thanks to Jacob Beck for pressing me on this point.

[15] Even Burge, who devotes a full-length book (2010) to arguing that perceptual representations involve objective reference stops short of maintaining that harboring such representations is sufficient for having propositional thoughts with subject-predicate form. For an illuminating discussion, see Burge (2010a).

are capable of entertaining only brute thoughts – thoughts whose contents and structure differs in various systematic ways from *our* thoughts.

Second (and relatedly), uncovering the complexity of languageless cognition and other aspects of mentality does not moot all questions concerning the relevant thoughts. If one is a realist about thought contents, there is room for asking whether a given specification of a creature's thought content really does capture the way the creature is thinking ('what is going through its mind'), even after settling on an objective theoretical framework for systematizing the creature's perceptual and cognitive processes.[16] To borrow a distinction from Norman Malcolm – between *thinking* and *having a thought* – perhaps we should think of modest Parity as pertaining to the (episodic) *having of thoughts* – that is, the entertaining of *occurrent thoughts* by a creature.[17] It can be allowed (consistently with modest Parity) that not all the cognitive-representational processes that constitute a creature's *thinking* (for example, ones invoked to explain a creature's capacity for navigation or tool use) must be constrained by the creature's capacity to communicate thought contents. Some such processes, it can be argued, are more on a par with the processes that explain how one rides a bicycle, for example. They do not constitute things an individual 'thinks to oneself', or thoughts that 'go through one's mind'. It is only the latter – *entertained thoughts* – that would be said to have contents and form that mirror those of 'utterances' the creatures can make.[18]

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[16] For relevant discussion (and references) see Beck, e.g. (2012) and (2013).

[17] Thanks to Somogy Varga for reminding me of Malcolm's suggestive distinction.

[18] Entertained thoughts can perhaps be understood on the model of things one 'says to oneself'. Obviously, much more than can be said here needs to be said concerning the question how to delimit the scope of entertained thoughts.

Third, even absent a satisfactory independent defense of Parity, there is – at least in the present context – some merit in considering the modest version of Parity that I have proposed. For, as I go on to argue, it can help us articulate a sensible middle position that steers between the positions of Grice and Davidson. With that in mind, I proceed by accepting the more modest version of Parity; I leave a more direct defense of it for another occasion.

Now, contemporary philosophy of mind has offered us a dizzying array of options for accommodating languageless thought, but arguably none so far supports a stable middle position. Put in terms of our discussion here, existing views have tended to purchase Priority at the cost of Parity or vice versa. Very briefly, Fodorian or Dretskian representationalists clearly accommodate languageless representational thought beyond the (adult) human domain. Different representationalists differ as to how much *like* our thought they take the thought of the languageless to be. However, they all agree that, well before we get to (what Davidson describes as) pure triangulation, we *already* have in place representational, genuinely objective thought, governed by the relevant norms of correctness, and possessing a considerable amount of structure (on some views even conceptual-propositional and inferential structure). According to one representationalist – Peter Carruthers – even bees can be credited with propositional attitudes; i.e., representational states with appropriate functional roles *and* with conceptual-propositional contents that satisfy some rather stringent requirements (such as Evans' Generality constraint).[19]

[19] See Carruthers (2009).

Importantly, representationalists in no way tie the presence of languageless thought to subjects' capacity to communicate it. Thus, they do not only reject the rationalist requirements of Grasp (Claim 1) and Reflective Interpretation (Claim 4) but they *also* reject Intersubjectivity (Claim 3). On existing representationalist views, nonlinguistic subjects are to be credited with objective representational languageless thought on the strength of what is needed to explain their perceptual and behavioral interactions with their environment (coupled perhaps with their history and proper function, as per Millikan's view[20]). Intersubjective communicability plays no constitutive or constraining role in crediting subjects with representational states, and the contents and structure of their thoughts are in no way thought to mirror the meanings of their (nonlinguistic) communicative behaviors.

This, however, means that the representationalist can be seen to purchase Priority at the price of Parity. Although I think representationalists are right to complain that rationalists over-intellectualize objective thought and underestimate animals' representational and thought capacities, I think they are wrong to neglect the role of animals' intersubjective communicative behaviors in reflecting 'what's on their mind' – in betraying the *very character* of brute thoughts. By contrast, on the version of Parity that I am here putting forward, the contents of those thought are to be seen as on a par with the crude meanings that are to be assigned to their communicative utterances.[21]

[20] See, e.g., Millikan (1984) and (2004b).

[21] This would set apart the middle ground I try to articulate here from those of at least two representationalists, aspects of whose views on animal thought I accept: Ruth Millikan (in e.g. 2004a) and Jose Bermudez (2003). Burge's nonreductionist representationalism deserves a separate treatment, which is undertaken by Bar-On and Priselac in "Origins: Subjective, Intersubjective, Objective" (in progress).

I have complementary misgivings about recent opponents of the representationalist framework. Under the heading of 'extended mind', 'embodied cognition', 'enactivism', etc., some *anti-representationalists* have argued in recent years that *all* preverbal cognition and intelligent behavior, as well as intersubjective interactions, admit of 'minimalist' explanation in purely non-representationlist, non-intentional terms of sensitivity to natural signs, perception of affordances, goal-directedness, response-detection, dynamic embodiment, coordinated action routines, anticipatory mechanisms, and so on.[22] Although nonhuman animals and preverbal children possess various wholly *nonconceptual* modes of thought and attitudes, *conceptual* thought and *propositional* attitudes (which are conceptually structured) are the prerogative of language speakers. (In a similar spirit, Michael Dummett once proposed that animals can only engage in "essentially spatial", dynamic, perception-based and context-bound 'proto-thoughts' that have *no* conceptual structure.[23])

Like the representationalist, leading anti-representationalist typically assigns no distinctive role to nonlinguistic subjects' intersubjective communicative capacities in grounding languageless thought. As a result, I think, she is left with a conception of languageless thought that is 'too thin', thereby compromising Priority. This can be seen when recalling that one compelling reason for adopting some version of Priority has to do with the ambition of explaining the *emergence* of our thought and language. The anti-representationalist finds a deep gulf between the merely enacted, nonconceptual states of nonlinguistic subjects and the fully propositional thought of language speakers. One self-

[22] For a recent summary of the most radical version of this view, see Hutto and Myin (2017).

[23] See Dummett (1993, p. 123f). Other versions of this view can be found, *inter alia*, in Cussins (1990), Campbell (2011), and Gauker (2011).

proclaimed 'radical enactivist', Daniel Hutto, explicitly speaks of "a major cognitive Rubicon" between the 'basic minds' of nonverbal creatures and our own 'superminds', the crossing of which is marked by becoming language users.[24] But, clearly, the bigger the Rubicon, and the more committed one is to the role *language* must play in getting creatures over the representation 'hump', the more one plays into the hands of the Davidsonian skeptic, since the more difficult it would then seem to explain the emergence of propositional thought and language in *both* ontogeny and phylogeny.[25]

So my present complaint is that whereas representationalists are committed to portraying even pure triangulation in terms that are 'too rich', anti-representationalists seem committed to characterizing even a hypothetical intermediate triangulation in terms that are 'too poor'. Whereas, on the representationalist view the languageless thoughts of subjects

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[24] See Hutto (2008: 96). Somewhat similar remarks can be found in Berwick and Chomsky (2016).

[25] Hutto and Satne (2017) maintain – implausibly, I believe – that the sharp separation embraced by 'radical enactivists' between human language-dependent thought, on the one hand, and any cognition of which nonlinguistic creatures are capable, on the other hand, is entirely consistent with providing a continuous 'natural history' of mature human thought and language. Indeed, just like Davidson, they deny any possibility of a genuine intermediary stage between the wholly nonconceptual, nonobjective, non-intentional, 'radically enacted/embodied' mentality of nonlinguistic creatures and propositional-compositional thought of which linguistic creatures like us are capable. Indeed, they agree with Davidson that there can be no philosophically cogent continuity story (see Section 4). Yet they insist that this continuity skepticism is fully compatible with 'natural' or biological continuity. As far as I can see, however, they simply fail to provide any positive explanation – consistent with the Davidsonian strictures they accept – of the natural emergence of human thought (or language) – beyond gesturing at "the development of ... intersubjective practices and sensitivity to the relevant norms" that "comes with the mastery of involving the use of public artifacts", which "[a]s it happens, ... appears only to have occurred with construction of socio-cultural cognitive niches in the human lineage (p.13). The position here seems unstable. Insofar as the biological explanations that appeal to niche construction *themselves* freely avail themselves to intentional notions, they can only support 'natural continuity' at the price of rejecting Davidsonian 'philosophical' discontinuity – which Hutto and Satne accept. Alternatively, one may wonder how these rich, norm-governed practices they invoke themselves emergerd. (In invoking niche construction explanation, Hutto and Satne rely on Clark 2006, who in fact *rejects* the radical enactivism they embrace.) Further discussion of this view must be left for another occasion (but see below).

Although radical enactivists assign a crucial role to normative intersubjective practices when it comes to language speakers, I would argue that they underestimate the potential of intersubjective communicative practices of nonhuman animals in providing insight into understanding emergence. This explanatory oversight (along with uncritical acceptance of Davidsonian assumptions) leads them to the unstable position just described.

even in Davidson's pure triangulation already *exemplify* key features of our own thought (they don't simply foreshadow them), on the anti-representationalist view, the thought of all 'basic minds' not only doesn't exemplify but it in no way *foreshadows* the thoughts of minds like ours.

To put some cards on the table, I agree with anti-representationalists that there are qualitative differences between the thoughts of languageless brutes and ours, and I agree with representationalists that understanding the emergence of our thought and linguistic communication requires rejecting the rationalist's Grasp and Reflective Interpretation requirements. However, I think that, if we are to identify a viable candidate for an intermediary, we should try to accommodate the distinctive key role Grice and Davidson assign to intersubjective communication. Though, in keeping with (generalized) Parity, we should understand the character of brute thoughts in terms of what is reflected in the communicative interactions of languageless subjects. This would allow us to accommodate the possibility of (some) thought without (or before) language, in keeping with (moderate) Priority. What we need is what Davidson thinks we cannot have: a vocabulary for describing 'half-minds', whose states prefigure ours without yet instantiating all their key mentalistic features.

III Expressive Communication: Crude Meaning, Brute Thought

Summing up so far: we saw that Grice and Davidson (along with other language rationalists) believe that linguistic meaning and objective thought content arise through interactions among communicating agents. Objective, intentional content is coeval with intersubjective communicative engagement. But, we saw, the rationalist skeptic maintains that there is no hope for understanding the *emergence* of meaningfulness of the sort

exhibited in our human linguistic transactions, since such meaningfulness requires a certain *reflective mindedness* in place, for which there are no precedents in the interactions of languageless subjects.

In this final section, I marshal some considerations in favor of the possibility of a compromise position between Davidson's and Grice's. My proposal begins by examining the nonverbal *expressive behaviors* that we adult humans share with nonhuman animals and prelinguistic children. To anticipate, I will suggest that we should think of the character of languageless *brute thought* in terms of what is reflected in expressive nonlinguistic sounds and gestures, which possess only *crude meanings*.

In his seminal work *The Expression of the Emotions in Man and Animals*,[26] Darwin identifies expressive behavior as representing an important common ground between 'man and animals'. He had in mind various facial and postural expressions, vocalizations such as distress, food, and alarm calls, grooming and reconciliation grunts, teeth-barings, tail-waggings, lip smacks, ground slaps, food-begging gestures, 'play faces' and play bows, threat gestures, eyebrow flashes, and so on.) Philosophers, linguists, and theorists of animal communication, have tended to assimilate these sorts of behaviors to physiological symptoms, such as red spots on the skin, sneezes, galvanic skin responses, or else to signals that convey information – perhaps *by design* – about an animal's biologically significant features such as size, sexual readiness, fitness, or individual identity, portraying them as a species of *natural signs* that simply convey information about animals' internal states. However, I believe the standard view fails to do justice to the rich character and

26. See Charles Darwin (1872).

complex texture of expressive behaviors, as well as its potential in illuminating the emergence of human thought and language.

Elsewhere, I have argued that proper theoretical understanding of expressive behavior and the distinctive sort of intersubjective communication it affords may be helpful in a search for legitimate, *non-Gricean* precursors of objective thought and linguistic communication.[27] Expressive behaviors arguably possess meanings that fall between the meanings of natural signs, on the one hand, and Gricean speaker meanings, on the other. These behaviors and their uptake are 'thoughtful', inasmuch as the creatures that engage in them are *minded* creatures, possessing psychological states that are reflected in and affected by the behaviors. Yet they do not require Gricean intentional-interpretive apparatus for their production or reception.[28] And expressive communication can support intersubjective interactions that are best characterized in terms that are neither too poor nor too rich. It can thus point the way to a legitimate natural precursor of (what Davidson describes as) objective thought – this would be world-directed brute thought that is neither purely reactive nor fully reflective. The possibility of such thought can underwrite the possibility of a genuine intermediate triangulation between Davidson's pure and reflective cases, allowing us to move beyond the impossible choice presented to us by Grice and Davidson.

Even independently of engaging the Grice-Davidson opposition, I contend that expressive communication constitutes a promising domain in which to look for precursors

[27] See e.g. Bar-On (2013a), (2013b), (2015), (2016), (2017) and (2018).

[28] One key idea is that, although expressive behavior as I construe it is very often communicative, its primary purpose is not the conveying or transmission of information (either about the expresser or about her environment). Rather than being designed to *tell* or provide evidence for how things are, it is designed to *show* states of mind of expressers *so as to move relevant others to appropriate action*. And this is done in a way that does not require the observer to form a *belief* or *make an inference* about the expresser's state of mind. For relevant discussion, see references in previous footnote.

of structured, propositional vehicles of communication. Below I offer a brief summary of features of expressive behavior relevant to this claim.

➢ **Expressing is a form of showing.** Consider first expressive behavior in our own species. On various occasions, upon being presented with a new fluffy teddy bear, little Jenny's face may light up; or she may let out an excited gasp, reaching for the toy; or she may emit a distinctive sound ('Uh!'), or call out: 'Teddy!' as she eagerly stretches her hand toward the toy. Later she may exclaim "I want Teddy!"), perhaps with no reaching. Jenny's facial expression and her sigh are what philosophers sometimes call 'natural expressions'; whereas her eager hand-stretching and subsequent utterances are things she does voluntarily, as she gives vent to her desire. These are all different ways Jenny has of expressing a particular state of mind. One can *give expression to* – express in the *mental-state* sense – amusement at a joke by laughing, as well as by uttering a sentence with a structured meaning, such as 'This is so funny!'. We have here expressive *acts* or performances that use different *vehicles* of expression.[29]

What makes a bit of behavior an *expression* of a mental state? A suggestion found in Wittgenstein and other philosophers (as well as in Darwin) is that expressive performances *show* expressers' states of mind, as opposed to hiding them, on the one hand, and as opposed to *telling* about them intentionally, on the other.[30] On the expresser's

[29] Sellars (1969) distinguishes expressing in the semantic sense from expressing in the *causal* and the *action* senses. I adopt a modified version of Sellars' distinction in Bar-On (2004: Ch. 7 and *passim*); see also Bar-On (2015).

[30] 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 is 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

side, the showing behavior relevant to expressing is behavior that springs immediately from – and directly exhibits, displays, or betrays – the expressed state of mind. It doesn't *simply* provide information or give evidence about it (the way, e.g., someone taking an aspirin shows *that* they are in some kind of pain). On the audience's side, the relevant contrast is between behavior that allows some kind of *direct recognition* or *uptake* of the expressed state, on the one hand, and behavior that requires say, inference (however secure) based on various features of the behavior coupled with available contextual information and background knowledge.[31]

- **Animals' expressive behavior is communicative and open, and expressive vehicles are socially shared.** What we may call 'expressive signals' seem different from – and less ubiquitous than – animal signals that are designed to advertise an animal's fitness or strength. Expressive behavior seems designed *openly* to exhibit the presence and character of expressers' states of mind to suitably endowed observers. Moreover, expressive signals are typically socially shared and enjoy relatively stable significance among groups of communicators. Consider animal alarm calls. They are shared insofar as there is relative uniformity in the pattern of their production and uptake across the relevant species or group. Alarm calls (and other expressive signals) are generally thought to be innate, rather than learned, so in that sense they are *natural* signs. Yet, unlike paradigmatic natural signs,

states by observers who are suitably attuned (whether by nature or experience). For relevant discussion, see Bar-On (2004: Ch. 7), Green (2007), Bar-On (2010), and Sias and Bar-On (2015).

[31] 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.

expressive signals are, by natural design, produced *for* designated receivers. They have distinct social-communicative significance.

- **Nonverbal expressive behavior is Janus-faced.** The expressive performances of nonhuman animals obviously do not employ expressive vehicles that have structured, compositional meaning. A yelp or a tail wag – unlike the English sentence 'This hurts!' or 'So good to see you!' – does not *semantically* express a proposition. And it does not have discrete components that express separate concepts and can be productively recombined to generate different propositions. The relation between an act of expressive behavior and the state of mind it expresses is obviously not *symbolic*. Still, what I am calling 'expressive signals' exhibit communicative complexity that surpasses that of other animal signals. For example, when a meerkat sentry spots an approaching predator and emits a warning call, it will fixate its gaze on the predator, thereby allowing its hearers to see exactly where the threat is coming from. 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 – slink away from the threat, or hide from it (the state's dispositional 'profile').

Early studies of alarm calls by ethologists presented them as *merely affective displays*: purely instinctive or reflexive reactions to environmental stimuli that reliably indicate animals' states of mind, such as arousal or fear. They were sharply contrasted with linguistic utterances, precisely because of their direct causal relation to affective states. More recently, however, ethologists have begun to recognize the need for a more nuanced understanding of alarm calls, transcending the emotional/semantic dichotomy. For example, Seyfarth and Cheney (2003) argue that vervet alarm calls can be seen as *both*

expressive *and* having a *referential* dimension. In addition, they observe (2007: 221) that animal calls also exhibit a *predicative* dimension, insofar as their acoustic intensity and other features are often closely correlated with the perceived level of predator danger. (Suricate calls, for example, vary in their acoustic structure "depending on the level of urgency" (Manser 2001) – a bit like the difference between saying *Eagle here!* vs. *Eagle nearby*.) The suggestion is that animal calls often fulfill their communicative role by drawing attention to the animal's psychological state, while *at the same time* drawing attention to some external object or event at which the state is directed. They have a Janus-faced character – pointing inward, to the animal's internal state *at the same time* as they point outward to the state's target or cause.[32]

Inasmuch as expressive performances 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 hormonally triggered behavioral changes, and may be said to exhibit a measure of *intentionality* (in Brentano's sense) or subjective directedness, even if not produced intentional*ly*. And in contrast with perceptual and other, more passive states, which are also often said to exhibit intentionality, expressive behaviors also have an active dimension. For they reveal the relevant behavior's cause or motivation at the same time as they foretell the expresser's impending behavior and move the designated audience to appropriate responses.

[32] See Tormey (1971: 27f. and *passim*). The Janus-face character discussed here is different from the dual force ascribed by Millikan (1996), (2004a) to 'pushmi-pullyu' representations, which pertains exclusively to the *semantic content* of the calls ('Food here'+ 'Come get it!'), and does not have to do with the specifically expressive dimension of the relevant acts.

➢ **Expressive signals have a certain *kind* of complexity with various dimensions.** So far, I have highlighted several dimensions of the distinctive communicative complexity of expressive signals. These directly reflect dimensions of the psychological states they express. Indeed, I would argue that there is a certain *parity* between expressive behaviors and the psychological states they express. This makes sense, if the 'job' of such behaviors – what they are (naturally) *designed* for – is to exhibit aspects of the expressed states. But note that to discern complexity along several dimensions is *not* to say that the complex state – or the behavior that displays it – has recombinable *parts* or components that correspond to the dimensions or aspects of complexity.[33] The expressed states are psychological states – both affective and cognitive – that guide the animal's action and are *directed at* (or are 'about') certain environmental objects: states such as fear *of a certain predator*, anger *at a rival* or excitement *by a mate,* attending *to* or curiosity *about some happening*. They can be thought of as *prepositional attitudes,* in contrast with *propositional* attitudes. Just like the behaviors that express them, their contents lack *discrete, combinatorial, compositional structure,* though they may still involve reference to objects or individuals in the expresser's environment. Importantly, crediting animals with prepositional states does not imply taking these states to be full-blown *propositional thoughts* or *judgments* that are subject to our logical norms of inference or epistemic norms of justification. At the same time, it also

[33] 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*. To illustrate, suppose 'a' 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's suggestion, the complex symbol "***a*b**" shares the *propositional* but not the *logical* (compositional) form of the sentence "Red a is larger than blue b". See Rosenberg (2007, 105ff).

does not require supposing these states to be merely embodied states or to have wholly unstructured and nonconceptual contents.

To sum up, on my conception, animals' expressive communication is intersubjective, world-directed, overt, and social. It is designed by nature (rather than through individual intention or culture) to exhibit openly *specifically* the presence and character of expressers' *states of mind* to other subjects (who are suitably endowed), so as to move them to act in appropriate ways, in part by foretelling the expresser's impending behavior. Going back to Davidson's triangles, expressive communication understood along these lines can allow us to make sense of what I have called 'intermediate triangulation', interposed between the pure case in which one subject simply responds or fails to respond to another's object-related behavior with her own, on the one hand, and the reflective case in which subjects issue contradictory linguistic statements about objects in their environment, on the other hand. Subjects in intermediate triangulation engage in expressive communication allowing them to perceive the intentional targets or sources of each other's psychological attitudes and anticipate (at least some of) each others' impending actions based on their uptake of each others' expressive behaviors. The sort of mindedness implicated in intersubjective expressive communication can arguably allow a subject to apprehend a kind of distance or gap between her own take on a situation and someone else's, despite lacking the verbal means to express a true (or false) propositional *belief* (and despite even failing to *have* such a belief). If so, then object-centered expressive interactions can be seen to foreshadow the intersubjective interactions characteristic of reflective triangulation, without yet exemplifying the linguistic capacities necessary for such interactions.

The expressive behaviors of subjects in intermediate triangulation will directly reflect their thoughts. Theirs would be *brute thoughts*: they would not have contents that are fashioned as shadows of the sentences *we* do – or would – use to give voice to our own thoughts (or offer by way of glossing theirs, thought-bubble-style). The contents of *their* thoughts should reflect the (crude) meanings they can (though not necessarily do in every case) intersubjectively communicate. Thus, in keeping with Parity, the contents and structure of brute thoughts are not supposed to outstrip the crude meanings that are communicable through brutes' expressive behaviors. However, in keeping with Priority, we may give credence to the idea that languageless animals *can* possess genuine (albeit brute) thoughts. So, although we may agree with Davidson that we should not credit languageless creatures with the kinds of thoughts *we* – language speakers – can be credited with, we may side with Grice in allowing that languageless thought is possible.

Some Concluding Remarks

It is commonplace among contemporary philosophers of mind and language – not to mention cognitive ethologists, comparative psychologists, and evolutionary anthropologists – to suppose that nonhuman animals, as well as prelinguistic children, are capable of having some kinds of thoughts. Some version of the Priority thesis is taken for granted by many. Moreover, explaining the emergence of mature human thought and linguistic communication may *require* supposing that languageless thought is possible. We have, however, seen that it *also* requires that we not construe languageless thoughts as language-*like.* This naturally gives rise to the question: What *are* languageless thoughts like? What *are* the languageless thinking when they entertain contentful thoughts?

This question does not seem idle. Compare: frogs clearly can *see* various objects; but what do these objects *look like* to them (read: what is the character of their visual experiences)? Or: dogs can clearly be in pain when injured; but what does that experience *feel like* to them (read: what is the character of that painful sensation)? Similarly, we may sensibly wonder: apes and other animals can clearly have various affective and cognitive attitudes toward objects and events in their environment; but what is the intentional character and structure of those attitudes?[34] In particular, how similar are the contents of their intentional attitudes to those of our propositional attitudes? In each of these cases, one can point to potentially relevant psychological differences between us and the brutes. And this can provide a (non-skeptical) reason to leave open the possibility that nonhuman animals have states (experiences, sensations, conative and cognitive attitudes) that must be understood 'in their own terms' – that we should not read the character, structure, or content of our states into theirs.

Given the differences, the task of *spelling out,* or *specifying* the contents and structures of brute thoughts is a daunting one. (It is but an extreme instance of the task of characterizing a genuinely alternative conceptual scheme.[35]) I have not here taken positive steps toward tackling this task. Instead, I have suggested that, with (modest) Parity as a benchmark, we may do well to turn our attention first to the crude meanings of the

[34] The questions are only intended to be *analogous*. There is no commitment here to the idea that having thoughts with determinate content itself constitutes an experience with qualitative ('phenomenal') features.

Regarding the analogous questions: one can hold that attributing a visual *experience* or a pain *sensation* (respectively) cannot be properly detached from attributing an experience that has specific phenomenal features. In that case, the questions can be rephrased as follows: granted, nonhuman animals can undergo episodes that share key neuro-functional characteristics of (human) visual experiences or certain sensations, but do they actually *have* the relevant visual experiences/sensations? (For relevant discussion, see Lycan 1996.)

[35] See Bar-On (1994).

behaviors that give voice to brute thoughts.[36] Given that non-linguistic expressive behaviors are more openly observable and manipulable than the states of mind they express – in all the ways familiar to students of animal communication – the task of specifying their crude meanings may be a more tractable one.[37] A good first step toward figuring out what the languageless are thinking, I have proposed, is understanding what they are 'saying' – or rather what they are showing through their expressive behaviors.

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[36] This is not to say that specifying the crude meanings possessed by expressive behaviors is itself a trivial matter, either. It presents researchers with the task of genuinely *radical translation*: the mapping of non-linguistic signals onto rich linguistic ones. See Bar-On (1991).

[37] For a very recent attempt along these lines by ethologists, see Graham et al. (2018).

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