

## Interlude 1: Languages and Evolutions

For my investigation into the role language plays in our relationship with our ‘ancestor’ I take my cue from Jacques Derrida, who, in *Tours de Babel*, wrote that “One should never pass over in silence the question of language in which the question of language is raised and into which a discourse on translation is translated”.<sup>1</sup> Furthermore, Derrida writes, in a different context: “It is of the essence of language that language does not let itself be appropriated. Language is precisely what does not let itself be possessed, but, for this very reason, provokes all kinds of movements of appropriation”.<sup>2</sup> How, then, can paleoanthropologists (echoing classical philosophy’s Aristotelian definition of ‘man’ as *zoon logon echon*) claim with such confidence that it is language that makes us human and that separates us from other animals, including other hominids?

The problem of ancestry – or how to think around the always already and necessarily mediated access to a time *before* and *after* humans – for most philosophers, paleoanthropologists and evolutionary psychologists turns on language, or, even more generally, symbolic thought and its unsurpassability as *the* evolutionary feature that constitutes the one truly exceptional characteristic of *homo sapiens (sapiens)*.<sup>3</sup> We will never *know* (for certain) what the phrase ‘before language’ *means* since it is impossible and certainly meaningless to literally speak ‘without’ (some form of) language – which is, of course, not the same as to deny language to nonhumans,<sup>4</sup> nor to believe that at some stage within (human) evolution language somehow must have ‘emerged’. However, with language we hit upon an aspect of the problem of impossible originality in a very specific form, since, in Derrida’s often misunderstood phrase, “*il n’y a pas de hors texte*” – there is no ‘metalanguage’ for it. In other words (and this is already the question of translation Derrida raised in the quotation from *Tours de Babel* above): one can only ever speak about language in (a specific) language. There is no universal language which would somehow subsume any or all specific languages. One is either inside one language (or symbolic system) or inside another. This does not mean that there is ‘nothing’ outside language – in fact most things are – but as soon as language (and, indissociably, thinking) occur, they occur in *a* language. And the specificity of this language *matters*, since *a* language

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<sup>1</sup> Jacques Derrida, “Des Tours de Babel”, trans. Joseph F. Graham, In *Difference in Translation*, ed. Joseph F. Graham, (Ithaca: Cornell University Press, 1985), 210, 166; translation modified.

<sup>2</sup> Jacques Derrida, “Language is Never Owned: An Interview”, *Sovereignties in Question: The Poetics of Paul Celan*, (New York: Fordham University Press, 2005), 101.

<sup>3</sup> The increasing scientific ‘trend’ to postulate and then focus on the availability of a ‘thinking without words’, is investigated by José Luis Bermudéz in *Thinking Without Words*, (Oxford: Oxford University Press, 2003). Due to the “drastically expanded domain of the cognitive”, as a result of the “recent cognitive turn”, according to Bermudéz, “our understanding of the early stages of human development has undergone a sea change”:

Until recently, even those who held that thought could in principle exist without language had little idea how to study thought except through the language by which it is expressed. But current practice in the study of animal behaviour, in the study of prelinguistic infants, and in the speculations of cognitive archaeologists about the evolutionary prehistory of *Homo sapiens*, has left these assumptions far behind. (p. 3)

I will return to some of the implications of this highly contested shift and the specific role of animal and cognitive ethology, as well as of biosemiotics, and the supposed ‘non-linguistic condition’ of ‘prehistoric man’, as Bermudéz puts it, at the end of this aside on language and evolution. Needless to say that I remain very sceptical as far as our access to any ‘pre-linguistic condition’, whether human or not, is concerned, which, in turn, is of course also related to my scepticism regarding Meillassoux’s critique of ‘correlationism’ levelled at post-Kantian metaphysics (see “Introduction: Before ...”, above).

<sup>4</sup> See Louise Westling’s persuasive argument for the continuity between human and nonhuman languages in “Language is Everywhere”, *The Logos of the Living World: Merleau-Ponty, Animals and Language*, (New York: Fordham University Press, 2015), 101-134.

presupposes a language community (and hence a culture – although there is never a topographic identity between language and culture) with specific norms and values (which are constantly being renegotiated and thus evolving).

However, there remains the unsolvable riddle of the ‘*Ur-Sprache*’<sup>5</sup> – the myth of the most originary or ancestral (‘perfect’ or ‘pure’) language from which all other languages must somehow have derived (and of which they would be ‘mere’ translations). This Babel scenario is closely connected, on the one hand, with the idea of essential ‘humanity’, and, on the other hand, with Meillassoux’s ‘arch-fossil’.

Arguably, the main way in which human exceptionalism is traditionally justified is through language-ability. Kenneth Burke’s “Definition of Man” might serve both as a summary and as symptomatic account of the way in which (Western) philosophy understands the human as “the symbol-using animal”. In *Language as Symbolic Action* (1966), Burke proposes the following definition:

Man is the symbol-using (symbol-making, symbol mis-using) animal, inventor of the negative (or moralized by the negative), separated from his natural condition by instruments of his own making, goaded by the spirit of hierarchy (or moved by the sense of order) and rotten with perfection.<sup>6</sup>

How to reconcile such an obviously, despite its ironic take, arch-humanist definition of ‘man’ with the ‘non-humanism’ of science and the critical post-humanism that is announced by a phrase like *before humanity*? If one accepts the essential ‘linguisticism’ of the human (and its investigative field, the humanities) as our linguistic (human) condition so to speak,<sup>7</sup> how can one deal with the (scientific) ‘facticity’ of a pre-linguistic (and maybe also a post-linguistic) time, to adapt Meillassoux’s argument? In other words, and again this ‘in-other-words’ already announces an impossible ‘translation’, how to reconcile the view that it is language which makes us human, on the one hand, with, on the other hand, the notion that humans somewhere along the line of evolution *developed* the adaptive behaviour called ‘language’ or symbolic thought (probably via some form of ‘proto-language’, which itself is either linguistic or, ‘merely’, the ‘translation’ of other forms of symbolic systems)?<sup>8</sup> Or even more sharply, how to do justice to two equally counter-intuitive but arguably equally true claims that “humans use language to communicate” and “we do not speak language, but *language speaks us*”?<sup>9</sup>

In many ways this rift concerning the role of language within human evolution (and the level of uniqueness associated with it) runs right through modern science – i.e. the disciplines of evolutionary biology, psychology, paleontology, cognitive and neuroscience, as well as linguistics.<sup>10</sup> The

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<sup>5</sup> See Walter Benjamin’s essay “On Language as Such and on the Language of Man”, *Reflections: Essays, Aphorisms, Autobiographical Writings*, ed. Peter Demetz, (New York: Schocken Books, 1978), 314-332.

<sup>6</sup> Kenneth Burke, *Language as Symbolic Action: Essays on Life, Literature, and Method*, (Berkeley: University of California Press, 1966), 16.

<sup>7</sup> A classic case would be Hans-Georg Gadamer’s claim that “being that can be understood is language”, in *Truth and Method*, trans. Joel Weinsheimer and Donald G. Map., (London: Continuum, repr. of 2nd rev. ed. 2006), 470.

<sup>8</sup> This is what Cormac McCarthy refers to as the “Kekulé problem” (going back to the 19<sup>th</sup>-century chemist Friedrich August Kekulé von Stradonitz who discovered the structure of benzene by dreaming of the ouroboros ring; McCarthy uses this as an analogy for the explanation of how (human) language ‘evolved’ out of the ‘animal unconscious’); see Cormac McCarthy, “The Kekulé Problem”, *Nautilus* 47 (20 April 2017), available online: <http://nautil.us/issue/47/consciousness/the-kekul-problem>.

<sup>9</sup> A stance often attributed to Jacques Lacan and seen as characteristic of poststructuralism more generally.

<sup>10</sup> Charles Taylor differentiates between two types of theories of language: “enframing (or designative-instrumental)” theories with their attempt “to understand language within the framework of a picture of human life, behaviour, purposes, or mental functioning, which is itself described and defined without reference

conundrum of “how the human got its words”<sup>11</sup> and of the various necessary intermediate stages within this development (i.e. protolanguage) can be gleaned from the following passage by the evolutionary linguist James Hurford:

The capacity to acquire a modern human language is genetically transmitted. So, barring mutations and new recombinations, a child cannot acquire a language of a formal type that the parents were incapable of acquiring. To the extent that they share the same relevant genes, the qualitative language acquisition capacity of the child is identical to that of the parents. We assume that there were relevant mutations and recombinations in the evolution of the modern human language faculty. Accordingly, there must have been children who were born capable of acquiring a class of languages different from the class of languages acquirable by their parents. These “transitional” children would have been presented with data (spoken utterances) produced from grammars of the old type, and internalized grammars of a new type, while still maintaining tolerable mutual intelligibility with the previous generation.<sup>12</sup>

In order to further explain the necessary ‘transition’ of protolinguistic to modern language grammars, Hurford goes on to list a number of ‘preadaptations’ for language supposed by a variety of evolutionary positions, for each of which “has been suggested that its presence was a necessary precondition for the emergence of Language”:<sup>13</sup> these are ‘cognitive’ preadaptations (e.g. theory of mind),<sup>14</sup> ‘social’ (e.g. altruism and group size), ‘physiological’ (e.g. brain size, or vocal tracts).

From an evolutionary point of view, the development of language has to be linked to ‘fitness-enhancement’. This also involves the possibility (not entirely different from the view mentioned above which relativizes the role of human agency in language ‘acquisition’) that “it is not we humans who are adapted, but that languages, as sociocultural constructs, have evolved and adapted to us”.<sup>15</sup> There is also no agreement over whether language evolution happened gradually, slowly and continually or ‘catastrophically’ and suddenly. For proponents of the existence of ‘protolanguages’, these are usually compared to primitive ‘ape languages’ or some form of “Tarzan talk”.<sup>16</sup> The role of bipedalism and tool-use (or indeed ‘culture’ more generally) is equally controversial: bipedalism is usually seen as a physiological requirement for the development of vocal tracts that allow for the variety of ‘human’ sound production leading to symbolic language; tool-use can be seen as coinciding

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to language” (p. 3); and “constitutive expressive” theories that “give us a picture of language as making possible new purposes, new levels of behaviour, new meanings, and hence as not explicable within a framework picture of human life conceived without language” (p. 4); see Charles Taylor, *The Language Animal: The Full Shape of Human Linguistic Capacity*, (Cambridge: Harvard University Press, 2016). The present critique of paleoanthropological accounts of language emergence, based on the notion of ‘ancestrality’, shows, however, that these models can merely have some heuristic value and ultimately cannot be kept apart.

<sup>11</sup> Cf. John V. Canfield, “How the Human Got Its Words”, *Becoming Human: The Development of Language, Self, and Self-Consciousness*, (Houndmills: Palgrave, 2007), 58-77.

<sup>12</sup> James R. Hurford, “The Evolution of Language and Languages”, In *The Evolution of Culture: An Interdisciplinary View*, eds. Robin Dunbar, Chris Knight and Camilla Power, (Edinburgh: Edinburgh University Press, 1999), 176-7.

<sup>13</sup> Hurford, p. 179.

<sup>14</sup> This is e.g. Robin Dunbar’s standpoint; see his “On the origin of the human mind”, In *Evolution and the Human Mind: Modularity, Language and Meta-Cognition*, eds. Peter Carruthers and Andrew Chamberlain, (Cambridge: Cambridge University Press, 2000), 238-53. Dunbar explains the ‘fact’ that “Humans seem to lie on a different cognitive plane to other primates” (p. 238) by the absence of a theory of mind (or a minimum of “fourth-order intentionality” in other primates (p. 242)). See also his *The Human Story: A New History of Mankind’s Evolution*, (London: Faber & Faber, 2004), where Dunbar reiterates his insistence on theory of mind as the main evolutionary development to produce our “social brain” (p. 113).

<sup>15</sup> Hurford, “The Evolution of Language and Languages”, p. 183.

<sup>16</sup> *Ibid.*, p. 188.

with, as a precursor to, or as a beneficiary of the development of ‘modern’ language(s). Hurford completes his survey by establishing the smallest common denominator of these various positions:

Clearly language is adaptive. Humans clearly benefit from possession of complex language, but equally, languages, considered as organisms in themselves, thrive in the hospitable environment of human minds and communities. The early story of the evolution of the human capacity for language involves the settling into place of a range of social, psychological and physiological preadaptations. Once all preconditions for language in humans were in place, it is likely that languages blossomed rapidly ...<sup>17</sup>

I cannot here engage with the full variety of explanatory models that have been and are currently being used to understand the evolution of language. Suffice it to say that there was and there continues to be large disagreement including the very function of evolution in the appearance of language. It is therefore more accurate to speak of evolutions – in the plural – and also in the continuous present tense of (still) evolving with regard to languages and their acquisition.

For my purposes here, I will focus on the way in which these evolutionary positions have influenced paleoanthropology – the scientific branch that may be seen as most relevant to the way I have ‘enframed’ the question of *before humanity*. I begin by briefly returning to the variety of positions within the debate around the linguistic ability of our ‘cousins’, the Neanderthals. Human ‘uniqueness’ due to language and symbolic cognition for some does include Neanderthals, while others draw a clear line between Neanderthals and Cro-Magnons in this respect (usually based on the absence of symbolic art or representation in Neanderthal ‘culture’). Ian Tattersall is categorically against attributing significant ‘symbolic cognitive processes’ to Neanderthals:

This new capacity ... stands in the starkest possible contrast to the more modest achievements of the Neanderthals whom the Cro-Magnons so rapidly displaced from their homeland in Europe and western Asia. Indeed, Cro-Magnon behaviors – just like our own – evidently differed totally from those of any other kind of human that ever previously existed ... And it was almost certainly the adoption of symbolic cognitive processes that gave our kind the final – and for the Neanderthals, fatal – edge.<sup>18</sup>

Tattersall reconfirms his view in a more recent contribution on “Language and the origin of symbolic thought” and adds that “The abruptness and synchronicity of this Old-World-wide elimination of competing hominid forms suggests that, whatever it was about *Homo sapiens* that suddenly positioned our species as the sole hominid on the planet, it cannot simply have been an extrapolation of pre-existing evolutionary trends in the human lineage”.<sup>19</sup> In order to reconcile this uniqueness with the fact that evolution can only be a process of selection and adaptation of ‘ancestral’ traits, i.e. evolution does not permit ‘unprecedented’ change as an explanation for the uniqueness in any species, Tattersall has recourse to the idea of ‘exaptation’: “in reality, all new genetic variants must come into being as exaptations. The difference is that while adaptations are features that fulfil specific, identifiable functions (which they cannot do, of course, until they are in place), exaptations are simply features that have arisen and are potentially available to be co-opted into some new function”.<sup>20</sup> As Tattersall explains in his later text:

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<sup>17</sup> *Ibid.*, p. 190.

<sup>18</sup> Ian Tattersall, “How We Came to Be Human”, *Scientific American* 2002: 67.

<sup>19</sup> Ian Tattersall, “Language and the Origins of Symbolic Thought”, In *Cognitive Archaeology and Human Evolution*, eds. Sophie de Beaune et al., (Cambridge: Cambridge University Press, 2009), 109.

<sup>20</sup> Tattersall, “How We Came to Be Human”, 69.

In evolution, form has to precede function, if only because without form there can be no function. Indeed, there is a strong argument to be made that any novelty must arise as an “exaptation”, an entity existing independently of any new function for which it might have been suited and thus later co-opted. It may thus be permissible to speculate that the neural substrate for our remarkable symbolic cognitive abilities initially arose as a by-product of the extensive physical reorganization that we see so clearly reflected in our unique osteology. If so, the potential for symbolic cognition offered by this substrate must have lain unexploited for some considerable laps of time until it was “discovered” by its possessors. This discovery must have been made, and its symbolic potential released by some behavioural or cultural innovation. The most plausible candidate for this cultural stimulus is the invention of language, an activity that is virtually synonymous with our symbolic reasoning ability – and that would certainly be impossible in its absence.<sup>21</sup>

It is certainly no coincidence that Tattersall’s idea of ‘emergence’ as opposed to ‘extrapolation’ as the advent of symbolic thought, prompted by the ‘invention’ of language, is beginning to resemble, and thus to suffer from the same conceptual difficulties, as all ‘proto-’ or ancestral structures.

‘Exaptation’ is nothing but – in terms of the before-humanity conundrum – another kind of ‘reverse-teleology’, in the sense that ‘becoming human’ must have been inscribed within (human) evolution only to be released by some ‘traumatic’ actualization (or function, here: language) of a pre-existing form: “an exapted brain, equipped since who knows when with a neglected potential for symbolic thought, was somehow put to use”.<sup>22</sup> It is not at all clear then, why or indeed whether this exaptation not also applies to Neanderthals (as I have argued in my reading of Golding’s *The Inheritors*), and whether it not merely displaces the question of ‘how we came to be human’ from form (symbolic cognition/language) back to function (i.e. consciousness/mind), as Tattersall himself concedes:

Unfortunately, exactly what it was that exapted the brain for modern cognitive purposes remains obscure. This is largely because, while we know a lot about brain structure and about which brain components are active during the performance of particular functions, we have no idea at all about how the brain converts a mass of electrical and chemical signals into what we are individually familiar with as consciousness and thought patterns. And it is this which it will be crucial to understand if we are ever to make the leap to comprehending exactly what it is that enables us to be (and I use the term advisedly) human.<sup>23</sup>

The evident logic circularity here of ‘becoming human’ and ‘being human’ is thus down to a ‘lack’ of translation or indeed translatability – a missing ‘language’ of or for the brain or consciousness that creates a mysterious ‘obscurity’, and which requires a ‘leap’ – a leap (of faith?) that would constitute the evolutionary ‘task of the translator’.<sup>24</sup>

A less exclusive view [implied in the plural of the title to this aside: “Evolutions and Languages”] might admit that “Neanderthal communication evolved along their own path, and ... this path may have been quite different from the one followed by our ancestors. The result must have been a difference far greater than the difference between Chinese and English, or indeed between any pair of human languages... Neanderthal speech ... may have included

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<sup>21</sup> Tattersall, “Language and the Origins of Symbolic Thought”, 114-5.

<sup>22</sup> Tattersall, “How We Came to Be Human”, 69.

<sup>23</sup> *Ibid.*, p. 69.

<sup>24</sup> See Walter Benjamin’s seminal essay, “The Task of the Translator”, *Illuminations*, ed. Hannah Arendt, trans. Harry Zohn, (New York: Schocken Books, 2007), 69-82, where Benjamin plays on the double meaning of the German *Aufgabe* (both task and abandonment, or responsibility and self-effacement).

features quite foreign to modern language that evolved in the Neanderthal lineage since the time of *Homo heidelbergensis*.<sup>25</sup>

In fact, a less 'normative' approach to the prehuman other, as I suggested, might indeed help create a more inclusive notion of 'humanness', as Allan Mann also seems to imply, when he writes: "Modern humans have a range of abilities in cognition, symbolic representation, speech and language, manipulative skills, and social complexity that might be summed up as 'humanness'. In this sense, were the Neanderthals human, non-human, or in the process of becoming human?"<sup>26</sup>

A similar argument reoccurs in the context of a wider 'cultural' (r)evolution of which 'the origin of language' is just one aspect, an approach often attributed by Edward O. Wilson and other evolutionary thinkers to 'biosociality'. In his early work *Biophilia* (1984), Wilson tried to establish a bio-evolutionary explanation of art as a necessary complement to traditional humanist studies of the "inward journey of the artist's mind".<sup>27</sup> For Wilson, cultural evolution in the stone age was 'autocatalytic' – "each advance made other advances more likely".<sup>28</sup> Furthermore, Wilson believes that "human social behavior arose genetically by multilevel [group and individual selection combined] evolution", which means that "we can expect a continuing conflict among components of behaviour favoured by individual selection and those favoured by group selection".<sup>29</sup> Human nature – "the inherited regularities of mental development common to our species" – is governed by "epigenetic rules, which evolved by the interaction of genetic and cultural evolution that occurred over a long period in deep prehistory".<sup>30</sup> These rules are 'hardwired' or 'prepared' but still have to be 'learned' by the individual – which is similar to Tattersall's notion of 'exaptation'. As Wilson explains: "human speciality is intentionality, fashioned from extremely large working memories" and, as a result, "[w]e have become the experts at mind reading, and the world champions at inventing culture".<sup>31</sup> And it is due to the fact that human beings are enmeshed in social networks and that they have developed 'shared attention' that language had to be 'invented' (by the (human) mind):<sup>32</sup>

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<sup>25</sup> Thomas Wynn and Frederick L. Coolidge, *How to Think Like a Neanderthal*, (Oxford: Oxford University Press, 2011), 130-132.

<sup>26</sup> Allan Mann, "The Genus *Homo* and the Origins of 'Humanness'", In *The Oxford Handbook of Language Evolution*, eds. Maggie Tallerman and Kathleen R. Gibson, (Oxford: Oxford University Press, 2012), 281.

<sup>27</sup> Edward O. Wilson, *Biophilia*, (Cambridge: Harvard University Press, 1984): "We are in the fullest sense a biological species and will find little ultimate meaning apart from the remainder of life" (p. 81).

<sup>28</sup> Edward O. Wilson, *The Social Conquest of Earth*, (New York: Norton, 2012), 85. The usual exclusion of the Neanderthals from the 'creative explosion' is here repeated by Wilson (see pp. 85-6).

<sup>29</sup> *Ibid.*, pp. 273-274. Wilson's 'bio-essentialism' in the face of the 'posthuman threat' of AI and eugenics, however, sounds indeed more like a humanist rear-guard fight: "The biological human mind is our province. With all its quirks, irrationality, and risky productions, and all its conflict and inefficiency, the biological mind is the essence and the very meaning of the human condition" (*The Social Conquest of Earth*, p. 96). Wilson's (problematic) move instead is a call for a 'New Enlightenment' which is hoped to prevent a revival of space travel and 'exo-planetary' biological ventures (which constitutes quite a dramatic change indeed from the opening of *Biophilia*, where Wilson had written):

So, now I will confess my own blind faith. Earth, by the twenty-second century, can be turned, if we so wish, into a permanent paradise for human beings, or at least the strong beginnings of one. We will do a lot more damage to ourselves and the rest of life along the way, but out of an ethic of simple decency to one another, the unrelenting application of reason, and acceptance of what we truly are, our dreams will finally come home to stay. (p. 297)

<sup>30</sup> Wilson, *The Social Conquest of Earth*, p. 193.

<sup>31</sup> *Ibid.*, p. 226.

<sup>32</sup> *Ibid.*, pp. 227-228.

Language was the grail of human social evolution, achieved. Once installed, it bestowed almost magical powers on the human species. Language uses arbitrarily symbols and words to convey meaning and generate a potentially infinite number of messages. It is capable ultimately of expressing to at least a crude degree everything the human senses can perceive, every dream and experience the human mind can imagine, and every mathematical statement our analyses can construct. It seems logical that language did not create the mind, but the opposite... The rudiments of human language might have appeared as the essential enabling mental qualities that came together and coevolved in a synergistic fashion. But it is highly unlikely that it preceded them.<sup>33</sup>

The 'magical powers' of language thus in no way parallel the even more magical and preceding powers of the 'mind' with which they, subsequently, create a 'synergy'. For Wilson, it seems clear that the question with which I started this interlude is definitely settled – mind 'before' language,<sup>34</sup> followed by 'synergistic co-evolution' – which, in itself is not without its own temporal paradox, of course. However, Wilson clearly sides with Darwin – and against Chomsky's notion of a 'universal grammar', or Steven Pinker's 'language instinct'<sup>35</sup> – in believing that "language evolved to fit the human brain, rather than the reverse".<sup>36</sup>

Also in agreement with this idea, John Dupré argues for both (initial) continuity and (subsequent) discontinuity between humans and other animals:

First human language, like the giraffe's neck or the peacock's tail, has evolved to a state that may easily be seen as different in kind from the related features of any of its relatives. Nonetheless, there is nothing in this that should provide any trouble for the view that these features evolved naturalistically, by degrees, from some very different ancestral structure. But, second, as human language has evolved it has made possible other changes in human life that have even more profoundly distanced our own species from any of our relatives.<sup>37</sup>

All this notwithstanding, continuity or discontinuity, gradual or sudden, explosive or 'catastrophic' change – none of this really helps explain the ultimate reason for language development.

This is why Christopher Collins's attempt to show, not how, but 'why the human got its words', through his notion of 'paleopoetics' is so interesting. Just to briefly revisit my parallel discussion of Collins in the reading of Golding's *The Inheritors*, Collins proposes a 'rhetorical' motivation for language development:

Rhetoric ... serves purposes that predate language and, in fact, predate the emergence of our human genus, purposes that include territorial dominance, sexual selection, alliance building, and all those other social negotiations practiced by our primate ancestors. This rhetoric would have been one of postural, gestural, and vocal signals.<sup>38</sup>

He goes on to develop a theory of evolutionary 'poetics', from the 'pre-symbolic mind' to modern poetry (and literature) that attempts to cut across disciplines and the kind of arguments outlined above with regard to the development of language. He begins by introducing a distinction between

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<sup>33</sup> *Ibid.*, p. 228.

<sup>34</sup> Cf. *Ibid.*, p. 234: "The key properties of the mind guiding language evolution almost certainly appeared before the origin of language itself".

<sup>35</sup> Steven Pinker, *The Language Instinct*, (New York: William Morrow & Co., 1994).

<sup>36</sup> Wilson, *The Social Conquest of Earth*, p. 235.

<sup>37</sup> Jon Dupré, *Darwin's Legacy: What Evolution Means Today*, (Oxford: Oxford University Press, 2003), 75.

<sup>38</sup> Christopher Collins, *Paleopoetics: The Evolution of the Preliterate Imagination*, (New York: Columbia University Press, 2013), 11.

‘pre-language’ and ‘protolanguage’ in which the former “would have expanded the store of manual gestures far beyond that of modern apes”,<sup>39</sup> while the latter represents:

[t]he symbolic code of syntax-less speech composed of clearly articulated phonemes that many assume had to have been a transitional phase between pre-language and full language. When protolanguage and, later, full language emerged, these retained features of the prelinguistic system, deploying that older repertoire of voice and gesture as *paralanguage* to convey a broad range of affective states and semantic nuances.<sup>40</sup>

The particularly interesting aspect in Collins’s proposed model lies not so much in the actual transition from pre- to proto- to ‘full’ language but in what might be called the ‘presence of the past’ in modern human language through the continued availability (or ‘affordance’) of ‘older semiotic media’ like vocal prosodic features, symbolic gestures, emblematic or iconic signs<sup>41</sup> – prehistoric and pre-linguistic rhetorical features that are at the same time identifying features of oral poetry. Collins’s claim is that “prosodic structure and performance techniques are stylizations of vocal and kinesic paralanguage and that formulaic diction is inherited from holistic protolanguage”,<sup>42</sup> so much so, that “imaginative writing, being a living link to our phylogenetic past, derives its special properties from its power to actualize those older, deeper cognitive levels that still remain with us”.<sup>43</sup>

Irrespective of the scientific accuracy of Collins’s (or indeed of any of the other evolutionary language models presented here), from the point of view of purely temporal logic, it confirms the inextricability of pre- and proto- from any ‘hindsight’ position. Some form of ‘linguicity’ must have been contained *in nuce* in pre-language and to an even greater extent in protolanguage, while ‘traces’ of both remain somehow active in ‘full’ language (which, consequently, can therefore never really be considered as truly ‘full’, etc.). One could argue that this is another case of a *post hoc ergo propter hoc* move (or reverse teleology, as I referred to it above, echoing Dawkins).

To evidence the inevitable circularity in explanations of linguistic emergence it is worth discussing one representative evolutionary account of protolanguage in more detail.<sup>44</sup> Derek Bickerton derives his argument from what he refers to as the ‘continuity paradox’, namely the idea that “language must have evolved out of some prior system, and yet there does not seem to be any such system out of which it could have evolved”.<sup>45</sup> Bickerton looks at language not primarily as a system of communication (which would explain language ‘merely’ as a developed version of animal language) but as a system of representation connected to the ‘state of consciousness’ (“a way of representing

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<sup>39</sup> Collins, *Paleopoetics*, p. 107.

<sup>40</sup> Collins, *Paleopoetics*, 107. Collins’s concern is to show that these ‘primitive elements’ that travelled from pre- to proto- to ‘full’ language, and which remain present within full language in the form of ‘paralanguage’, “continue to accompany speech and ... have become embedded in the medium of literature and to a special degree in poetry, providing it with its traditionally recognized structures” (p. 107). Literature (and poetry in particular), this is Collins’s fascinating claim, would then form that kind of ‘discourse’ which is most closely connected with the prehistory of language development and thus with emergent humanity: “verbal artifacts, or poems (broadly defined), are able to provide glimpses into the nonverbal embodied mind because they are themselves the consummate instruments of that mind” (p. 207). Literature might thus be said to be able to join science in providing access to the ‘ancestral’ through a specifically ‘speculative’ form of ‘realism’, however, not necessarily in Meillassoux’s sense.

<sup>41</sup> Collins, *Paleopoetics*, pp. 139-140.

<sup>42</sup> *Ibid.*, p. 140.

<sup>43</sup> *Ibid.*

<sup>44</sup> Derek Bickerton, *Language and Species*, (Chicago: University of Chicago Press, 1990); see also Bickerton and William H. Calvin, *Lingua ex Machina: Reconciling Darwin and Chomsky with the Human Brain*, (Cambridge: MIT Press, 2000).

<sup>45</sup> Derek Bickerton, *Language and Species*, p. 8.



ourselves to ourselves and the world around us").<sup>46</sup> He finds evidence of 'protolanguage' (or what he considers to be, metaphorically speaking, the 'fossils of language') in trained apes, children under the age of two, adults who have been deprived of language in their early years and speakers of pidgin.<sup>47</sup> Since these 'fossils' (like Collins's traces) continue to (co)exist within contemporary languages, Bickerton argues, "no longer do we have to hypothesize some gargantuan leap from speechlessness to full language, a leap so vast and abrupt that evolutionary theory would be hard put to account for it".<sup>48</sup> And while "the gulf between protolanguage and language remains an enormous one", the assumption that there must have been a primitive linguistic ability which evolved first (i.e. protolanguage) at least makes the task of explanation possible, "especially since the level of representational systems achieved by some social mammals amounts to a stage of readiness, if not for language, at least for some intermediate system such as protolanguage".<sup>49</sup> However, here again the circularity of the argument is worth underlining: the only way to explain the emergence of protolanguage for Bickerton is to simply posit that "to start a protolanguage, all that was necessary was some kind of label to be attached to a small number of pre-existing concepts".<sup>50</sup>

The main question nevertheless remains: what would have been the evolutionary benefit of the rather 'costly' adaptation of 'full' language? For Bickerton, the mere existence of this adaptation is proof of the primarily 'representational' nature of language-benefit:

What gave our own species its ascendancy was not so much the power to communicate as the power to think, to imagine, and to plan, using our language-constructed model of reality as an arena in which to rehearse possible future actions. This power could [not] have flourished in the absence of any adequate means of expression.<sup>51</sup>

However, rather than illustrating the logical precedence of conceptuality over language Bickerton's assumption in fact casts doubt on it and even threatens to reverse the relationship between concept and language – which means that the emergence of language, never mind protolanguage, remains as mysterious as it has always been. Citing the acquisition of modern two-year old humans of full language as 'evidence' that "protolanguage can change into true language without any intervening stage"<sup>52</sup> does not really help in that respect either. In the end, there only remains the 'catastrophic' version of human origins that proposes that "the development that gave us language took place in a single individual at a not very remote period and that the progeny of this individual spread throughout the then-inhabited world and superseded previous hominid populations in all parts of it".<sup>53</sup> This also means that we are back at Golding's scenario, now exacerbated by the even more 'catastrophic' conclusion, namely that language, as an evolutionary 'weapon', is responsible for killing off the other humans. In this respect Bickerton's explanation sounds almost cynical when he insists on calling language 'the great enabler' and cites language as "the most plausible feature of brain *organization* ... given its greater representational and computational power" as an explanation of how our ancestors replaced the Neanderthals.<sup>54</sup>

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<sup>46</sup> *Ibid.*, p. 24.

<sup>47</sup> *Ibid.*, p. 122.

<sup>48</sup> *Ibid.*, p. 128.

<sup>49</sup> *Ibid.*

<sup>50</sup> *Ibid.*

<sup>51</sup> *Ibid.*, p. 152.

<sup>52</sup> *Ibid.*, p. 165.

<sup>53</sup> *Ibid.*, p. 174.

<sup>54</sup> *Ibid.*, p. 176.

It may appear all the stranger after this course of argument that Bickerton in the “Epilogue” to his study – and in good humanist fashion one might add – stresses not only the unique import of language but also the ‘moral’ implications this rather dangerous ‘tool’ might have:

For, more than any other factor, language created our species, and created too the world that our species sees. Only language could have broken through the prison of immediate experience in which every other creature is locked, releasing us into infinite freedoms of space and time. Only language could have refined the primitive categories of the other creatures and built them into complex systems that could describe and even seem to explain the world. Only language could have given us the power to manipulate those systems through the power of constructional learning, designing futures different from our past and then seeking to make those imagined futures real.<sup>55</sup>

Only language ... The anthropocentric implications derived from this lingua-centric view of human evolution are, today, being contested both from within evolutionary biology itself and from various posthumanist angles, including animal studies, object-oriented-ontology and new materialist philosophies. The reasons for this shift are not difficult to understand if one takes into account Bickerton’s hopelessly ambivalent attitude and typically ‘tragic’ humanist account of how language makes us, the surviving humans, capable of both ‘the best and the worst’:

Language bestowed on its possessor powers that yielded far more than mere survival, powers that effectively conferred on our species the stewardship of earth. Yet, formidable as those powers were, they carried within them the seeds of destruction. Language had given us, not enough, but too much: not just the stewardship of earth, but the capacity to destroy species weaker than ourselves, and even features of the environment on which our own survival might depend. Yet language is at the same time the nurturer and facilitator of all that is best in us, all that seeks to avoid such a fate and to bring us back into unity with the rest of creation.<sup>56</sup>

What is most extraordinary in this account is the devolvement of responsibility to (human) language at a time when it is *humans* (and not their language ability, and even less the plurality of actually existing languages, many of which are just as much threatened with extinction as cultures, species and (bio)diversity in general) who are increasingly arguing themselves out of the picture.<sup>57</sup> However, what this moralistic humanist view of ourselves as unique language animals also implies is the much more radical possibility of a *postlinguistic* world (or a time *after* language) as a (future) evolutionary step.<sup>58</sup>

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<sup>55</sup> *Ibid.*, pp. 255-256.

<sup>56</sup> *Ibid.*, p. 256.

<sup>57</sup> Cf. Stefan Herbrechter, “On Not Writing Ourselves Out of the Picture”, *Antae* 1.3 (2014): 131-144; available online: <https://antaejournal.com/api/file/562b5d8f314609d31000275d> (accessed 15 December 2020).

<sup>58</sup> There is fundamental disagreement on whether humans are still evolving, at least in the Darwinian sense of ‘natural’ adaptation, especially given the prospect that humans may be able to gain control not only over their own genetic information but also over that of every other organism on this planet. See for example the discussion of various possible scenarios in Peter Ward’s article “What May Become of Homo sapiens”, *Scientific American* 22.1 (2013): 107-111. A variety of possibilities may arise from ‘directed evolution’ or (mainly technologically induced) ‘speciation’ (e.g. human space colonies, or the ‘borg route’). However, there is also evidence of epigenetic changes that imply a continuation of ‘natural’ evolutionary processes (e.g. the influence that the increase of caesarean births is having on the survival rate of women with a narrow pelvis and thus on the transmission of their genetic information; see Helen Briggs, “Caesarean births ‘affecting human evolution’”, BBC News, available online at [www.bbc.com/news/science-environment-38210837](http://www.bbc.com/news/science-environment-38210837) (accessed 15 December 2020).

As Rob Caird suggests: “[T]he idea of evolution should make us humble, not arrogant”.<sup>59</sup> A ‘humbler’ explanation of language emergence and human evolution would have to start addressing the circularity or reverse teleology outlined above. One might indeed begin with Caird, who refers to two distinct models of evolutionary change – or, ‘evolutions’, in the plural, as suggested in my title. Even more helpfully, he explains these two models in connection with the evolution of language:

In the first [model], it is possible to discern gradual, steady progress. Language, for example, would be improving over time, becoming more sophisticated in stages ... There would be a direct progressive correlation between a species’ ability to use language and its chances of avoiding extinction; language would become an essential weapon in the survival stakes ... The other model of change stands rigorously back from words of progress and advance. In this model you hear few phrases about the onward march of humanity, and you see much less emphasis on tracing the genealogical tree of *Homo sapiens*. What you do see are attempts to explain the circumstances which have brought about change, which give less weight to the hominids’ own efforts and capabilities and much more to the effects of the environment in which they lived.<sup>60</sup>

I would argue that it is especially important, in the context of *Before Humanity*, not to ignore the implications of both of these evolutions, in the plural, and to keep an open mind as far as the dynamics of the ‘still evolving’ and the plurality of ‘evolutions’ are concerned.<sup>61</sup> As Caird reminds us: “an appreciation of our history is an irreplaceable corrective for any ideas of superiority, whether of humans over other species or of one group of humans over another”.<sup>62</sup> However, he also cautions against the idea of ‘reverse teleology’ that, as I have tried to show, is implicit in any notion of ‘pre-’ or ‘proto-’ (whether it be -human, -language, or -history):

There is no such thing as being *en route* to humanity. Evolution does not allow the concept of transitional species or a halfway house. At the time of its existence, each species lives in its own right and can only be seen in the context of its time, not of our retrospective desire to see our predecessors as creatures striving to become us.<sup>63</sup>

This is what both ‘species’ and ‘language’ share, then. Just like there is no transition between inside and outside any given language, there is no sliding between inside and outside any given species. What thus remains to say is that *before* language there can only be (the always already irreducible plurality of) languages. This aporia of the impossibility *and* necessity of the one precursor and the one origin (of language, the human etc.) is what Jacques Derrida referred to as *plus d’un*.<sup>64</sup> And it is worth noting that it is a specific use of a specific language, in this case the French language Derrida writes in, that deconstructs and by this process shows this impossible necessity (of the undecidability between plurality and singularity, or of the *before* as both before *and* after, or first *and* last) at work:

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<sup>59</sup> Rob Caird, “Still Evolving”, *Ape-Man: The Story of Human Evolution*, (London: Boxtree, 1994), 169.

<sup>60</sup> Caird, “Still evolving”, p. 169.

<sup>61</sup> Caird, rightly points to the unpredictability of human evolution given the vast differences in ‘environments’ that humans actually live or survive in: “People who live in the developed economies of the West think of their environments as being dominated by cities, technology and economic resources. But the majority of the population of the globe does not live in that way. Most of the people of the world are rural, poor and without access to technology and material benefits” (p. 169).

<sup>62</sup> *Ibid.*, p. 186.

<sup>63</sup> *Ibid.*

<sup>64</sup> For example in *Monolingualism of the Other; or The Prosthesis of Origin*, trans. Patrick Mensah, (Stanford: Stanford University Press, 1998), where Derrida arrives at the aporia of *plus d’un* via two incompatible statements that describe how one is always in (a specific) language even while this language is never ‘owned’ or ‘originates’ in a specific subject: “I only have one language; it is not mine” (p. 1).

namely in the irreducibly plural meaning of *plus d'un* as both 'no longer' and 'more than' ... one. Just like in the case of 'before', the ambiguity and undecidability here is *structural* or aporetic. It cannot be reduced or overcome as such. The best one can thus hope for is to acknowledge *both* the impossible desire for the singular (origin, language, evolution, ancestor etc.) *and* the irreducibly plural (of origins, languages, evolutions, ancestors, etc.).<sup>65</sup>

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<sup>65</sup> On the "plus d'un" see Derrida, "Fidélité à plus d'un: mériter d'hériter où la généalogie fait défaut", *Cahiers Intersignes* 13 (1998): 221-265; for a commentary see my, "Plus d'un – Deconstruction and the Translation of Cultural Studies", *Culture Machine* 6 (special issue on Cultural Studies and Deconstruction) 2004; available online: <https://culturemachine.net/deconstruction-is-in-cultural-studies/plus-dun-deconstruction-and-the-translation-of-cultural-studies/> (accessed 15 December 2020).