

fell late in the season in that precise year. Thus F. F. Bruce comments, "The Fast is the day of Atonement (Yom Kippur) which falls on Tishri 10. Luke's remark has point only if it fell rather late in the solar calendar that year. In A.D. 59 it fell on October 5, but in all the neighboring years from 57 to 62 it fell earlier". Bruce then proceeds to advance further reasons for deciding on that year of A.D. 59.<sup>6</sup>

Commentators commonly call on a work by Vegetius, who describes the Roman practice of abandoning the sea when conditions made maritime activity hazardous. The reference to his work is normally brief; thus Bruce (p. 481) makes this comment: "The dangerous season for sailing began about September 14 and lasted until November 11; after the latter date all navigation on the open sea came to an end until winter was over". In a footnote he refers to Vegetius, "On Military Matters 4.39".

However, what Vegetius has to say deserves much fuller attention, and with the kind permission of the Liverpool University Press it is possible to do this. The work has been translated and edited by N. P. Milner, with the English title, *Vegetius: Epitome of Military Science*. He assigns the work to the latter part of the fourth century A.D., during the reign of Theodosius I, 378-395. This is a date much later than the time of Paul;

however, climatic conditions had not changed in the Mediterranean, nor had maritime practice.

Here is the passage of interest to us: "39. In which months it is safe to sail". Omitting now his allusions to the stars, we take note of the dates he gives: from 27 May to 14 September "navigation is deemed safe, because thanks to the summer the roughness of the sea is lessened". Thereafter, "until three days before 11th November navigation is doubtful and more exposed to danger", and eight days before 24 September "occur fierce equinoctial storms". Then he affirms that from the month of November shipping is interrupted with frequent storms, and from 11 November until 10 March "the seas are closed".<sup>7</sup>

Vegetius has further comments with a direct bearing upon Luke's account, and we hope to use these later, but we must already perceive how relevant his observations are to an understanding of Luke's record. As for the mention of the Day of Atonement, and the conference held on board the ship at Fair Havens, these important matters also call for further discussion.

(To be continued)

---

6. F. F. Bruce, *The Book of the Acts* (revised edition), Erdmans, Grand Rapids, Michigan, 1988, p. 481.

7. N. P. Milner, "Vegetius . . .", Liverpool University Press, 2001, p. 146.

# Language—the Creator's gift

## 3. Is there an evolutionary explanation?

Graham Jackman

*This short series concludes by showing how experts have completely failed to offer any plausible explanation as to why speech should have evolved, leaving Creation as the only reasonable explanation of this remarkable facility, unique to humans.*

**H**OW CREDIBLE are the attempts made to provide a non-creationist explanation of the origin of human speech? Darwin himself made no serious attempt to account for it. He simply recognised the uniqueness of the phenomenon:

"It certainly is not a true instinct, for every language has to be learned. It differs, however, widely from all ordinary arts, for man has an

instinctive tendency to speak, as we see in the babble of our young children; while no child has an instinctive tendency to brew, bake or write".

Darwin concluded that language ability is "an instinctive tendency to acquire an art",<sup>1</sup> but went no further towards an explanation.

Others in the nineteenth century were less inhibited, developing somewhat naïve theories often referred to by their nicknames:

---

1. Charles Darwin, *The Descent of Man and Selection in Relation to Sex*, quoted by Steven Pinker in *The Language Instinct*, London, 1994, p. 20.

- the ‘pooh-pooh’ theory: language developed from instinctive cries to express various emotions
- the ‘ding-dong’ theory: language derives from instinctive ‘oral gestures’ in harmony with or imitation of the natural environment (this was a view given some support by Darwin)
- the ‘yo-he-ho’ theory: language derives from the rhythms of communal work effort and the accompanying grunting noises made.<sup>2</sup>

It is perhaps no wonder that, as noted in [Part 1](#), the Linguistic Society of Paris banned further articles and discussion on this topic ([Apr. 2007, p. 109](#))!

However, the development of the cognitive sciences in the last forty years or so, inspired to a considerable degree by the work of Noam Chomsky, has led to a proliferation of theorising about the origins of language, based on the work of archaeologists, linguists, neuroscientists, geneticists and others. It is well beyond the scope of this article—or the competence of the writer—to give a detailed account of this speculation. All that can be done is to give a brief survey of some main features.

### Questions

A credible theory of the origins of language would need to provide a convincing answer to the following questions, among others:

- Which came first: the development of language or of the larger brain needed for it?
- If language is the product of evolution, did it occur by a vast number of small steps or by a ‘big bang’? That is, when and where did it occur?<sup>3</sup>
- How did the essential abilities required for language arise: the generation and acquisition of the vast lexicon available to human speakers; the capacity for syntax, which permits speakers to produce entirely new utterances; and, above all, the capacity for symbolic thought?
- Is there any evidence of any ‘*Ursprache*’, that is, an original or primitive language from which the complexity of human speech would have developed?<sup>4</sup>
- How did each of the vast number of assumed mutations that finally led to language confer benefit on the creature in which they occurred?

This last question, perhaps the one most readily understood by the layman, is explained by one theorist as follows:

“What protoform can we possibly envision that could have given birth to constraints on the extraction of noun phrases from an embedded clause? What could it possibly mean for an organism to possess half a symbol, or three-quarters of a rule?”<sup>5</sup>

And, on the other hand, was a system as complex as human speech necessary to confer practical benefits on the ancestors of man?

“A semantic language with simple mapping rules, of a kind one might suppose that the chimpanzees would have, appears to confer all the advantages one normally associates with discussions of mastodon hunting or the like. For discussions of that kind, syntactic classes, structure-dependent rules, recursion and the rest, are overly powerful devices, absurdly so.”<sup>6</sup>

### Evolutionary theories

One of the first theories advanced with the advent of this new wave of speculation was that language developed out of human signs and gestures, themselves a simple form of communication. Derek Bickerton wrote in 1981 that the “gestural-origin theory” was the “hottest number in origins studies”. However, he points out that there is a vast difference between the two phenomena: “Language communicates concepts, call systems communicate stimuli”. Jean Aitchison calls it

2. See David Crystal, *The Cambridge Encyclopedia of Language*, second edition, Cambridge, 1997, p. 291; Jean Aitchison, *The Language Web: The Power and Problem of Words*, Cambridge, 1997 (1996 Reith Lectures), pp. 33,35.
3. Attempting to answer both these questions at once, Dan Everett commented in 1986, “How do we know that human language didn’t just ‘pop’ into being after the mind crossed a certain threshold for other reasons?”. Jean Aitchison regards this notion as “highly unlikely”, rejecting both the ‘rabbit-out-of-hat’ and the ‘snail-up-a-wall’ theory in favour of a ‘language bonfire’. The use of metaphors in this way is itself indicative of the fanciful nature of much of this speculation.
4. “There never was an *Ursprache*, a ‘primeval language’” (Steven Fischer, *A History of Language*, London, 1999, p. 56). See Pinker’s discussion of Bickerton’s notion of ‘protolanguage’ in *The Language Instinct*, p. 366.
5. E. Bates, D. Thal & V. Marchman, “Symbols and syntax: A Darwinian approach to language development”, in N. A. Krasnegor et al., *Biological and Behavioural Determinants of Language Development*, Hillsdale (N. J.), 1991, 31, quoted by Steven Pinker, *op. cit.*, p. 366.
6. David Premack, “‘Cavagai’, or the future history of the animal language controversy”, in *Cognition*, 19, 207-296.

“a flimsy argument”.<sup>7</sup> Chomsky goes further: “Language is not properly regarded as a system of communication. It is a system for expressing thought, something quite different”.<sup>8</sup>

More recently, Bickerton and William Calvin advanced a new theory in their book *Lingua ex Machina*, in which they attribute the development of language to a combination of three factors: first, social interaction; secondly, the development of practical skills required for survival, such as hammering and throwing; thirdly, physiological changes in the nervous system which made possible the transmission of the more complex ‘messages’ involved in syntactical utterances.<sup>9</sup>

Still more recently, Andrew Carstairs-McCarthy has advanced a theory based primarily on physiological change. He argues that the decisive events were the dropping of the larynx to the position that it occupies in adult humans (until this change occurs at about three months a human child is in this respect more like an animal). As already noted in the [first article](#), the long vocal tract thus created makes possible the variety and precision of the vowel sounds on which human speech depends. This change accompanied another one: the move to an upright, bipedal posture. These physiological changes, he argues, vastly increased the range of calls available to the hominid; but in order to avoid synonyms and not to overtax the memory, their call system developed in the direction of duality, based on a limited number of phonemes (see [first article](#)).<sup>10</sup>

One theory which commands a good deal of support claims that the decisive changes took place as a result of the formation of the Great Rift Valley in East Africa. The resultant climatic changes to the east of the valley brought about changes among the ape population there, which Jean Aitchison, who calls this account ‘East Side Story’, summarises as follows:

“After the catastrophe, our ape cousins were left in the lush and pleasant tree-terrain of the humid west. Our own ancestors were stranded in a relatively treeless savannah in the increasingly dry east, where they were forced to adapt—or die. An unfavourable climate forced a deprived species to live on its wits, and in the long run, develop language . . . A long-term trend towards drier, harsher weather required increasing adaptation from the surviving hominids. And one of these adaptations was language”.<sup>11</sup>

The yawning gaps in this theory are perhaps best illustrated by Aitchison’s own summary of it a

few pages later: “At some point they developed language”!<sup>12</sup>

### Primitive language?

If language evolved by natural selection, we might expect that somewhere in the world we would find evidence of some intermediate forms. Yet, despite speculation about ‘protolanguage’, we have in fact no such evidence. ‘Pidgin English’ might be thought to be a form of it; however, it has been shown that, whilst the English which develops among a population of adult speakers with different linguistic backgrounds is largely devoid of syntactical structure,

“. . . a pidgin can be transmuted into a full complex language in one fell swoop: all it takes is for a group of children to be exposed to the pidgin at the age when they acquire their mother tongue”.<sup>13</sup>

This is further evidence of the extraordinary grammatical ability of children, and of the fact that this facility lasts only until about the threshold of adulthood; see [previous issue \(May 2007, p. 145\)](#).

It used to be assumed that the language of ‘primitive’ people (that is, peoples less technologically advanced than ‘Western’ civilisation) would also be ‘primitive’. However, the research of the famous linguist Edward Sapir on Amerindian languages demonstrated that these languages, though widely differing in structure from Indo-European languages, are anything but ‘primitive’. David Crystal comments, “Sapir points out the similarity to the way the verb varies in Latin—a comparison which many traditional scholars would have considered to verge on blasphemy!”.<sup>14</sup>

---

7. Derek Bickerton, *Roots of Language*, Ann Arbor, 1981, p. 220; Aitchison, *op. cit.*, pp. 70-73.

8. Noam Chomsky, *On Nature and Language*, Cambridge, 2002, p. 76.

9. Editorial Commentary by William Calvin and Derek Bickerton, 28 May 1998, on HotScience, CogNet’s interactive editorial ([HotSciAdmin@cognet.mit.edu](mailto:HotSciAdmin@cognet.mit.edu)).

10. Andrew Carstairs-McCarthy, *The Origins of Complex Language: An Enquiry into the Evolutionary Beginnings of Sentences, Syllables, and Truth*, Oxford, 1999, ch. 5 (pp. 125-75).

11. Jean Aitchison, *The Seeds of Speech*, Cambridge, 1996, p. 57.

12. *Ibid.*, p. 63.

13. Steven Pinker, *op. cit.*, p. 33.

14. *The Cambridge Encyclopedia of Language*, second edition, p. 6.

## Some features of writing on language origins

Dipping into writings by biologists, linguists and neuroscientists on the origins of language is a frustrating yet enlightening experience. A number of features are particularly worthy of note. First, there is a kind of heroic desperation; the writers almost uniformly confess the difficulty or even impossibility of the task before proceeding to advance their particular hypothesis. Thus Steven Pinker: "To be fair, there are genuine problems in reconstructing how the language faculty might have evolved by natural selection".<sup>15</sup> Bickerton and Calvin's comment is as follows: "But it has been difficult to identify non-language predecessors of structured language".<sup>16</sup> Gerry Altmann writes, "No one can be sure *why* language evolved".<sup>17</sup> The most frank about the insurmountable difficulties is Chomsky:

"In some domains, inquiry into components of the mind-brain has made dramatic progress . . . It is not a bad idea, however, to keep in some corner of our minds the judgment of great figures of early modern science—Galileo, Newton, Hume and others—concerning the 'obscurity' in which 'nature's ultimate secrets ever will remain'".<sup>18</sup>

Yet notwithstanding such professions of humility, most of these writers, Chomsky excepted, proceed to advance their particular view; and in these a number of recurrent features occur. Usually the theory derives from the particular expertise of the writer, leaping with extraordinary boldness over the yawning gaps and unexplained assumptions made once the argument goes beyond the immediate expertise of the writer. Other writers, especially those with different expertise, are quick to point out the flaws in the hypotheses of others. Thus Pinker describes one suggested explanation by Bickerton as "reminiscent of hurricanes assembling jetliners".<sup>19</sup>

The very language used often betrays the speculative nature of most of this work. In addition to the use of metaphor to mask the absence of evidence, the theorising proceeds through a series of 'might', 'may', 'possibly', 'perhaps', etc. Most crucially, despite the fundamental tenet of Darwinism that "natural selection has no foresight",<sup>20</sup> teleological\* notions are repeatedly, and perhaps unconsciously, smuggled in. Chomsky notes the claim that "the human brain, vocal tract and language appear to have co-evolved for the *purpose* of communication" [my italics here and throughout this paragraph].<sup>21</sup> Altmann

asserts that "the only reason monkeys did not evolve language is they did not *need* to".<sup>22</sup> Similarly, Aitchison's account of her 'East Side Story', quoted above, is full of language implying some purpose or at least some kind of need as a driving force for evolution, as though some intelligence were guiding the process:

". . . they were *forced to adapt*—or die. An unfavourable climate *forced* a deprived species to live on its wits, and . . . develop language . . . A long-term trend towards drier, harsher weather *required* increasing adaptation from the surviving hominids. And one of these adaptations was language".<sup>23</sup>

Or, as she puts it elsewhere, "Language was a lucky *choice* which paid off . . .".<sup>24</sup>

## Conclusions

The survey of theorising about language origins offered here illustrates a fact acknowledged, as we have seen, by many of the researchers themselves: there is neither clear evidence of, nor a convincing explanation for, the evolutionary origin of human language. Chomsky, above all, has emphasised again and again its uniqueness and the mysterious nature of its development. Two of the most significant observations come from that most combative proponent of evolution and critic of creationism, Richard Dawkins. Commenting on the remarkable fact that language exists only among humans, he says:

"Language, too, has apparently evolved only in us: that is to say at least forty times less often than eyes. It is surprisingly hard to think of 'good ideas' that have evolved only once".

And with regard to his own attempt to re-imagine an alternative evolutionary course for "a brainy biped", he says:

". . . true syntactic language seems to be unique to one species, our own. Perhaps . . .

---

15. *Op. cit.*, p. 365.

16. *Op. cit.*

17. Gerry T. M. Altmann, *The Ascent of Babel: Language, Mind and Understanding*, Oxford, 1997, p. 226.

18. *Op. cit.*, p. 91.

19. *Op. cit.*, p. 366.

20. *Ibid.*, p. 357.

\* That is, implying evidence of purpose or design.—D.J.B.

21. *Op. cit.*, p. 80.

22. *Op. cit.*, p. 226.

23. *The Seeds of Speech*, p. 57.

24. *The Language Web*, p. 33.

this is one thing that a re-evolved brainy biped would lack?"<sup>25</sup>

In other words, if the assumed evolutionary process were to be rerun, there is no certainty that language would be its outcome.

Why then, despite the evident difficulties and failure of all attempts hitherto to produce a theory convincing even to their own colleagues, do linguists, biologists, neuro- and cognitive scientists continue to speculate along evolutionary lines? Steven Pinker perhaps reveals the answer:

"Natural selection is not just a scientifically respectable alternative to divine creation. It is the *only* alternative that can explain the evolution of a complex like the eye. The reason that the choice is so stark—God or natural selection—is that structures that can do what the eye does are extremely low-probability arrangements of nature . . . The animal stuff in an eye seems to have been assembled with the goal of seeing in mind—but in whose mind, if not God's? How else could the mere *goal* of seeing well *cause* something to see well? The very special power of natural selection is to remove the paradox".<sup>26</sup>

If the probability is "unimaginably low" in the case of the eye, what of language, which, as Dawkins says, has occurred forty times less often than the eye? Pinker's argument seems tacitly to suggest that natural selection's "very special power" is that it appears to offer an alternative,

however implausible and unproven, to the intolerable prospect of having to admit language's Divine origins.

It cannot, of course, be *proved* that language did not originate through an evolutionary process driven by natural selection. Equally, we cannot prove conclusively that language is the result of God's specific creative act as indicated by Genesis and discussed at the opening of the [previous article](#). What may be said with confidence is that language remains, as David Premack admits, "an embarrassment for evolutionary theory".<sup>27</sup> The Biblical account remains the only credible explanation for our own, and especially our children's, extraordinary powers of speech. And if that is the case, and if, as our title suggests, language is the Creator's *gift*, then it behoves us all the more to use it rightly:

"May my lips overflow with praise,

For You teach me your decrees.

May my tongue sing of Your word,

For all Your commands are righteous"

(Ps. 119:171,172, NIV).

(Concluded)

---

25. *The Ancestor's Tale: A Pilgrimage to the Dawn of Life*, London (no date), pp. 489,493.

26. *Op. cit.*, pp. 360-1.

27. *Op. cit.*