

## A5

The theoretical importance of evolution in describing and explaining language and discourse and their interactions can hardly be overestimated, but has been officially discounted by ‘static’ or ‘synchronic linguistics’. Evolution is essential for assessing manifestations or trends in a language which do not seem plausibly accountable as instantiations of ‘rules’ but which determine the conditions for further developments and which I have proposed to call ‘frozen accidents’ (Beaugrande 1997a; cf. Gell-Mann 1994). One fairly global case of evolution concerns the gradual expansion of the Ergative in English grammar for determining whether a ‘process brought about from within or from outside’, e.g. ‘the glass broke’ versus ‘the cat broke the glass’ (Halliday 1985a: 150, 145, 147). Halliday (1985a: 150; 1967–68: 3/203) ascribes these ‘pairs’ to ‘the majority of verbs of high frequency in the language’, in contrast to the much less common ‘active’ and ‘passive’ many grammar-books still highlight in the staid tradition of Latin. He attributes this ‘predominance’ in ‘modern English’ to ‘a far-reaching complex process of semantic change’ in the ‘language over the past five hundred years or more’ (1985a: 146). The ‘waves of change’ indicate that ‘the transitivity system is particularly unstable in contemporary language’, due to ‘great pressure’ ‘for the language to adapt to a rapidly changing environment’ (1985a: 146). Such an evolution may have been encouraged by factors in the discourses of science and technology and in the commodification of objects that act as agents in the service of consumers, as in ‘this trailer sleeps three people’ (Random House Webster’s, p. 1259). Several usages in my own writing have been detected and amended by watchful editors like the redoubtable Jacob Mey, in collocations like ‘these occurrences have proliferated in recent years’. Perhaps I have seen similar

25 usages in the writings of non-native speakers of English; and time is probably on my side.

One fairly local case of evolution would be the ‘Verbalising’ of Nouns for special senses, e.g., to ‘network’ (to share information, especially via computer),  
30 to ‘outreach’ (to extend community services), and ‘to conference’ (to hold a conference’). These coinages suggest a trendy updating of labels for activities supported by the controlling functions of bureaucracy and technology yet purported to be motivated by humane concerns for other people.

35 On a deeper and broader plane, evolutionary accounts for the origin of language in the human species might lead to key insights about how the language is organised and sustained within and among the discourse participants we now find. For example, Edelman’s research has sought to demonstrate how language is indispensable to the rise of ‘higher-order consciousness’ and the  
40 ‘socially constructed self’ (1992: 124). ‘The acquisition of true speech leads to an enormous increase in conceptual power’; and ‘the evolutionary acquisition of the capacity for language’ has enabled ‘the evolution of new forms of symbolic memory and new systems serving social communication and transmission’ (1992: 130, 125). Edelman proposes to bridge the ‘gulf between linguistic theory  
45 and biology’ and to ‘abandon any notion of a genetically programmed language acquisition device’ (1992: 126). For this project, he favours an evolutionary ‘theory of speech acquisition’ following ‘a definite order’.

First, phonological capabilities were linked by learning with concepts and  
50 gestures, which allowed for the development of semantics. This development

permitted the accumulation of a lexicon: words and phrases with meaning. Syntax then emerged by connecting pre-existing conceptual learning to lexical learning [...] Thus, to build syntax or the bases for grammar, the brain must have re-entrant structures that allow semantics to emerge first (prior to syntax) 55 by relating phonological symbols to concepts; [...] the brain recursively relates semantic to phonological sequences and then generates syntactic correspondences, not from pre-existing rules, but by treating rules developing in memory as objects for conceptual manipulation. (1992: 129f, his emphases)

60 This theory tallies with accounts in systemic functional linguistics of how children acquire their native language (see now Halliday 1997). What remains to be worked out is what this view of evolution might suggest about the evolution of the discourse participant's current version of the language. In Edelmanian terms, the total knowledge of the language would be sustained by 65 multiple interactive 'neural maps' that supply the standing constraints of the language, e.g., the mutual position of noun and article in English, whilst the ongoing neural reverberations that strengthen or inhibit connections supply the emergent constraints. This mode of operation would enable the continual resetting of the collocability and colligability of the selections and combinations 70 and thus maximise efficiency without impeding creativity. A computational analogy might be the 'Waltz effect' first described for vision and more recently for language (Waltz 1975; Waltz and Pollack 1985): most of the computationally possible choices, e.g., how to interpret of convergence of lines as a vertex of a geometric object, are eliminated by the interaction of local constraints, e.g., 75 upon internally coherent and externally closed physical shapes.

Edelman's evolutionary perspective has led him to firmly reject the widespread notion of language being represented and processed by means of 'internal codes or syntactic systems', or by any 'exhaustive and determinate semantics' wherein  
80 'meaning arises from the mapping of rule-governed syntactical structures onto defined and fixed world objects or relations' (1992: 234, 236). He asks 'how could anyone accept so abstract a notion of human knowledge reason, and mental activity' (1992: 230). My answer, as you could guess, is the marvellous fit of this 'notion' with the idealisations confidently propounded in linguistics and  
85 philosophy throughout this century. To explain how humans could acquire such a system, such linguists can casually postulate 'a highly determinate, very definite structure of concepts and of meaning that is intrinsic to our nature, and as we acquire language or other cognitive systems these things just kind of grow in our minds, the same way we grow arms and legs' (Chomsky 1991: 66). A neurologist  
90 like Edelman might well feel irritated by such hand-waving explanations.

But how then should we account for the capacity of humans to sustain language and meaning upon a physiological and neurological basis that is not yet language and meaning just as the human cortex is not yet a grammar-book plus  
95 a dictionary? Plausibly, the 'meaning' of language and discourse is a system property distributed for multiple modes of processing across the levels in a steep gradation between richer toward the communicative end over to sparser toward the physiological end (Fig. 3).