

STUDI

Stories may come first, but they don't come alone

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Abstract I critically engage with Francesco Ferretti's hypothesis that narratives are the primary evolutionary driver of human language. Ferretti argues that language evolved from gestural storytelling used for persuasion, positioning narrative as prior to and independent of propositional structures. While I acknowledge the merits of this approach and its contrast with the Chomskyan model, I question the theoretical clarity of the concept of "narrative" and its supposed universal persuasive function. I also doubt that pantomimed stories could have played such a central evolutionary role. Instead, I propose a "mosaic" view of language evolution, in which multiple interacting factors – cognitive, social, and biological – contributed gradually and non-linearly to the emergence of language. I conclude that Ferretti's narrative-centred model, though suggestive, is overly reductive and underestimates the complex, multifactorial nature of language development.

KEYWORDS: Narrative; Language Evolution; Persuasion; Mosaic Model; Cognitive Development

Riassunto *Le narrazioni possono venire per prime, ma non da sole* – In questo breve commento analizzo criticamente l'ipotesi di Francesco Ferretti secondo cui la narrazione sarebbe stata il principale motore evolutivo del linguaggio umano. Ferretti sostiene che il linguaggio ha origine da storie gestuali a scopo persuasivo, attribuendo alla narrazione un ruolo originario e autonomo rispetto alle strutture proposizionali. Pur apprezzando il distacco dal modello chomskiano, sollevo dubbi sulla chiarezza teorica della nozione di "narrazione" e sulla sua presunta funzione persuasiva universale. Contesto inoltre l'efficacia evolutiva attribuita alla pantomima. In alternativa, propongo una visione "mosaicista" dell'evoluzione del linguaggio, secondo cui il linguaggio è un fenomeno complesso emerso dall'interazione graduale di molteplici fattori cognitivi, sociali e biologici. Concludo sostenendo che il modello narrativo di Ferretti, per quanto stimolante, risulti riduttivo e non sufficientemente fondato per rendere conto della complessità del linguaggio umano.

PAROLE CHIAVE: Narrazione; Evoluzione del linguaggio; Pantomima; Modello mosaicista; Comunicazione persuasiva

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1 Narratives first? Ferretti's hypothesis on the origins of language

IN *STORIES COME FIRST* FRANCESCO FERRETTI (2025) suggests an innovative perspective on the origins of language – one that he has been refining for the past ten years or so (likely more) and has culminated in his latest book, *The persuasive instinct* (FERRETTI 2022). Ferretti argues that the distinctive feature of human language lies in our capacity to tell stories. For him, communication, both in humans and animals, functions primarily as a form of persuasion, and the optimal format for this ability is narrative. It is precisely this narrative trait that makes the human communication system unique and distinctive. Ferretti holds that narratives have driven the evolution of verbal language. Initially, stories were expressed gesturally, primarily in the form of pantomimes, and were later accompanied by vocalizations. He claims that this account is plausible from both a cognitive and an evolutionary perspective.

While Ferretti reasonably addresses strong criticisms against the main explanatory alternative – namely, the view that language consists primarily of propositional structures – I believe that his arguments in favour of the narrative hypothesis, though plausible, are not universally convincing. I will scrutinize the reasoning he employs to support his thesis, as this is my task, and then focus on what I consider the weakest aspect of his argument: the claim that narratives were the primary driver of language evolution. I believe this approach, while overestimating the role of narratives, underestimates other relevant factors. In short, my main critique is that he focuses too narrowly on a single element rather than considering the multitude of factors that may have equally contributed to what remains, to this day, a rather mysterious phenomenon.

2 Beyond Chomsky: Narrative vs. propositional models

The picture Ferretti paints of the current landscape of hypotheses on the origins and development of language is well thought out. He distinguishes between two broad families of hypotheses. One is inspired by Chomsky, to whom he attributes the orthodox view of language as an abstract, formal, and computational structure built upon sentences as its fundamental units (let's call it the Chomskyan Hypothesis). The other, much more diverse, largely consists of anti-Chomskyan scholars, among whom Ferretti includes himself. This second camp encompasses a variety of perspectives, sometimes quite different from one another. The distinctive feature of Ferretti's proposal is his belief that narratives and stories, as whole semantic units, are the driving force behind the emer-

gence and development of language.

Ferretti presents several reasons to object to the thesis held by Chomsky and his followers. First of all, the Chomskyan account is, or remains, poorly suited to evolutionary dynamics. Although Chomsky himself has recently adjusted his proposal to fit within an evolutionary framework, his core ideas do not seem to be easily compatible with evolutionary explanations. Chomsky's fundamental conception relies on *Merge*, a dyadic operation that takes any two syntactic objects as arguments and returns their combination as a new single syntactic object while leaving the original syntactic objects unchanged (BERWICK & CHOMSKY 2016). This syntactic mechanism is often (explicitly or implicitly) attributed to a mutation that occurred in *Homo sapiens* at some point between approximately 200,000 and 60,000 years ago. As anyone familiar with Darwin's explanatory framework of natural phenomena would recognize, it seems truly bizarre that a single genetic mutation could determine the fate of humankind. Daniel Dennett had rejected such a hypothesis with a certain disdain, claiming that «the idea that a random mutation could transform a species in a single stroke is not even remotely a credible story; it has more in common with comic book fantasies like The Incredible Hulk and all those other action movie heroes who gain superpowers from extraordinary events» (DENNETT 2017, pp. 279-280).

At the evolutionary level, Ferretti's criticism is milder (than the Dennettian one). Although he disagrees with the immediatist considerations of Chomsky and his followers, he continues his critique of the conception that emerges from the Chomskyan framework – namely, the sentence as the fundamental unit of language structure. He does not insist, or at least, not too much, on some relevant incongruities underpinning the theory of Universal Grammar, such as the nature of the lexicon which, among other things, for Chomsky (and Berwick), does not have a referential relationship with the external world, that is, concepts (or something similar that would be implanted in our mind/brain) do not refer to things: according to this idea, the mental element TABLE does not refer to the table, an extra-mental object. This point warrants greater emphasis, as if the relationship between lexical items and the world is not referential, then an alternative should be proposed; Berwick and Chomsky fail to do so.

Therefore, regarding Ferretti's critique, I believe that he is correct. Although some relevant empirical evidence has partially confirmed the Chomskyan hypothesis about language, it faces both theoretical and empirical challenges that are difficult to overcome. To the extent that it is relevant, I endorse the criticism.

3 Discourse before sentences? Narrative as evolutionary precondition

I am not entirely sure that the primary aim of the Chomskyan hypothesis is to highlight the sentential nature of human language, although this may be inferred. However, this is what Ferretti claims. Before addressing this, he argues that the constitutive feature of language lies in the relationships between sentences at the discourse level (macroanalysis). His idea is that, in the early stages of human communication, our ancestors were more concerned with constructing coherent discourses than with forming well-structured sentences, since the distinctive characteristic of human communication is the ability to tell stories.

To justify this idea, the author challenges the priority of the sentence over discourse, emphasizing that understanding a narrative sequence requires different skills than understanding individual sentences. His key empirical argument is that certain language deficits, such as those observed in schizophrenic patients, demonstrate that the global coherence of discourse is not reducible to mere cohesion between sentences.

Ferretti's thesis goes beyond the idea that discourse and sentences involve distinct cognitive processes; he proposes that the ability to process coherent discourse is an evolutionary precondition for the formation of well-structured sentences. In other words, humans would have started telling stories before describing facts, making the narrative structure of language its fundamental characteristic from the very beginning. The plausibility of this claim is supported by the role narratives have played from an evolutionary perspective: according to Ferretti, communication consists of narratives because they have an intrinsically persuasive function. Rather than merely conveying information, narratives influence the behaviour of others and, in doing so, reduce conflicts.

In advancing this thesis, I believe Ferretti asserts his most central and challenging idea: that narratives and narrative thought are prior to and distinct from language. The narrative approach to the world supposedly enables humans to understand reality as a globally coherent network of events that are causally and sequentially related.

A confirmation of this view comes from research on mindreading, which is a cognitive ability likely developed without the support of language – at least in the early stages of human existence, as well as in certain non-human animals. The consequence of this reasoning is particularly provocative: thought precedes language, first and foremost. More specifically, it would have been a form of narrative thought, originally expressed in a highly direct and immediate format – pantomime – that shaped human communication. Only later would this have given rise to the symbolic system

we now recognize as language. Thus, it was through pantomime that communication, and ultimately language, emerged.

4 Limits of narrative: Conceptual ambiguities and evolutionary constraints

I think that some perplexities, rather than real objections, can be addressed against this bold hypothesis.

The very first issue I find questionable – and this is not a problem exclusive to Ferretti's hypothesis – concerns the notion of “narrative” or “story”. Several theoretical authors rely on this notion to explain our highest cognitive abilities, such as Bruner, Dennett, and Ricoeur; however, each of them exhibits some conceptual vagueness. The term “narrative” is usually understood as a structured sequence of events or experiences that are meaningfully connected. Typically, a narrative has a beginning, a middle, and an end. However, not all narratives follow this structure: some lack clear beginnings or endings, others employ multiple flashbacks, and some feature circular or recursive patterns.

Ferretti seemingly adopts the most conventional interpretation – namely, a linear exposition of causally related events. However, making this characterization the key explanatory tool for language is problematic. Just as he critiques the intrinsic sententiality of the Chomskyan model – arguing that understanding the individual sentences of a discourse does not amount to understanding the discourse as a whole – a similar objection can be raised against his characterization of “narrativity”. Narrativity, properly understood, should involve more than a mere cause-effect relationship. Likewise, grasping the flow of a narrative structure requires more than simply understanding causal links.

Ferretti insists on conceiving of narrative as a dynamic process that can be represented through pantomime, without any verbalization. This may hold true as long as the narrative remains limited to one or very few connected events. However, a more complex narrative structure cannot be adequately conveyed through pantomime alone.

He argues that various studies on the cognitive capacities of non-human primates and other species provide evidence of considerable continuity between the evolutionary paths of humans and other animals. Some non-human animals exhibit cognitive strategies such as mental time travel and mindreading. However, these abilities remain significantly limited in species other than humans and, as such, do not suffice to support the emergence of an effective narrative capacity.

In other words, if Ferretti defines “narrative” merely as a simple causal sequence, then this alone is insufficient to explain how and why language evolved from understanding such structures. Con-

versely, if he intends “narrative” to refer to a more complex ability to comprehend a stream of events that extends beyond simple cause-effect relationships, he fails to provide a compelling explanation of how such a capacity would have emerged. A nearly inevitable consequence of this consideration is the idea that language serves as the necessary binding element that renders the so-called narrative capacity coherent – precisely what he aims to avoid. Therefore, the notion itself, although intuitively and heuristically fruitful, requires theoretical reconsideration, re-elaboration, and reformulation, despite its frequent employment in the philosophy of mind and theoretical psychology.

However, I believe the further addition to the role of narratives in Ferretti’s framework is also questionable: the claim that narratives have gained prominence because they are persuasive. Is this always the case? I think not. Indeed, while stories can possess persuasive power, they do not invariably function persuasively. A story’s persuasive efficacy depends on the context in which it is narrated, its intent, and its reception.

Narratives certainly persuade in numerous instances, such as in political speeches (broadly defined), where they delineate areas of influence, or in commercial transactions and exchanges, and in religious and moral parables and myths, where they leverage emotions, values, or social norms. Incidentally, all these examples pertain to socially and culturally developed environments, where the absence of verbalization is difficult to conceive.

However, there are also narratives whose intent or effect is not primarily persuasive, such as those driven by aesthetic or entertainment purposes, or fictional stories. Furthermore, the supposed pantomimed narratives, which, according to Ferretti’s account, emerged as protolanguage before the advent of actual language, are dated approximately between two and one million years ago. At that time, social (or proto-social) scenarios must have been quite simple, even rudimentary. In these environments, I posit that interactive relations were similarly basic, and thus, so were the narratives.

It is perplexing to conceive of interactions conducted through pantomime leading to diplomatic outcomes with evolutionary consequential benefits, such as preventing hominin conflicts. It is difficult to envision pantomimes as a vehicle for intermediation, or to imagine that evolutionary pressures would naturally result in pantomimed negotiations. It is more likely that hominins living two to one million years ago would not *come to the negotiating table* with pantomimes. A more effective means of resolving disputes, such as assigning hunting territories, selecting caves for shelter, or choosing mates, would likely have been through club, physical force, rather than pantomime.

More intuitively, narratives might have been driven not by evolutionary pressures to optimize conflict resolution, but by other aims, primarily an informative one, which, in itself, can be considered functional to a species’ evolutionary fitness. Thus, narratives could have emerged primarily due to their informative nature, rather than their persuasive capacity.

Another source of perplexity, somewhat related to the previous point, regarding Ferretti’s hypothesis concerns the role of primary evolutionary driver he assigns to narratives. As I have already argued, it is questionable whether narratives are effectively derived from the evolutionary factor of persuasiveness, which purportedly reduces conflicts, since narratives are not necessarily persuasive. However, even granting that they are, it is highly implausible that a single dominant factor would drive the evolution of a particular trait. It is exceedingly rare for a single factor to evolutionarily determine a phenomenon.

To my knowledge, certain examples, often cited to illustrate evolutionary processes, are particularly significant. A classic example is found in many bacterial populations, where the primary selective pressure driving the evolution of resistance is the use of antibiotics. While other factors, such as competition with other bacteria or horizontal gene transfer, influence the evolutionary process, selection for survival in the presence of antibiotics remains the principal evolutionary driver. The persistence of the lactase enzyme in some human populations was strongly influenced by the introduction of dairy farming and milk consumption in the Neolithic period. The selection related to the nutritional advantages of milk consumption appears to be the fundamental factor. The textbook case of industrial melanism in the peppered moth (*Biston betularia*) is another paradigm. It is well known that in the UK during the 19th century, industrial pollution and the resulting darkening of tree trunks led to a shift in the coloration of peppered moths, favouring darker individuals of this species over paler ones.

Yet, in each of these cases, it is rather imprudent to claim that a single specific factor caused the appearance of a particular trait, a fortiori when the trait in question has profoundly determined the trajectory of a species, such as language in humans.

For these reasons, I am somewhat sceptical of the hypothesis that focuses on the persuasiveness of narratives as the primary evolutionary driver of language in humans. Evolution is a complex process influenced by different factors, such as biological constraints as well as ecological interactions. Evolutionary traits emerge as responses to various selective pressures, which often interact – for example, bipedalism in humans may have been favoured by several factors, such as energetic effi-

ciency, thermoregulation, and the use of hands for technical tasks (NIEMITZ 2010).

Moreover, other determinants also play a role in the development of certain traits, such as genetic and structural constraints. Even if a selective factor were dominant, the way in which it evolves depends on the possibilities provided by the species' genetic background. Furthermore, a gene or a set of genes can influence multiple traits (pleiotropy) (STEARNS 2010), and some traits may be inherited together due to genetic correlations, making it problematic to attribute the evolution of a phenomenon to a single factor.

Finally, not all changes in a species are due to natural selection. Genetic drift (MASEL 2011) and random historical events can significantly shape the traits of a population. Additionally, interactions with the environment, other species, and cultural elements all contribute to the evolution of a phenomenon.

Thus, I believe that explaining language within an evolutionary theoretical framework should not focus on identifying a single determining cause, but rather on examining multiple interacting factors. Ferretti, however, seems to insist on the determinant role of persuasive narratives as the primary driver for the rise and evolution of language; he does not appeal, in his hypothesis, to other concurrent and/or complementary factors. For him, persuasive narratives play the central, if not exclusive, role. Other approaches, which align with Ferretti's evolutionary perspective, do indeed adopt a pluralistic stance in this regard.

In this pluralistic perspective, language can be identified as a mosaic, following a trend that has gained prominence in recent years (cf., e.g., DEACON 1997; FITCH 2010; PARRAVICINI & PIEVANI 2019; PLANER & STERELNY 2021). Although the notion of "mosaic" in the paleoanthropological scientific literature can have different meanings, when applied to language, it does not refer to a single trait but rather to a composite set of elements and/or distinct traits that may have followed different evolutionary paths.

For Planer and Sterelny, for instance, the mosaic of language consists of various components, such as effective short-term memory, an instantaneous computational capacity for the analysis and generation of utterances, the ability to monitor these skills, semantic memory, the use of mental models, theory of mind (mindreading), social learning abilities, high social tolerance, and a disposition for cooperation. To these, one could add the ability to understand and narrate stories. Many of these cognitive tools may have already been present, even in a rudimentary form, in early hominins. Through their repeated and synchronized use, more recent traits, such as syntactic aspects, would have subsequently developed.

The mosaic perspective, therefore, does not

identify a single determining factor or a necessary condition that enabled the emergence of language. All the elements contributing to the development of language – including grammatical competence – are necessary. However, this competence is not regarded as special compared to the others; it is necessary but not sufficient, just like all the other components. A similar argument could be made for narrative competence: it may be considered necessary (if proven so) but not sufficient.

Language is a complex cognitive system composed of multiple fundamental components, each with its own distinct evolutionary history. Guided by the shared trajectory of evolution, these components have assembled under selective pressure, with the need to enhance communication serving as an adequate unifying force. Nevertheless, each of its constitutive elements evolved gradually – possibly at different times – without the intervention of any single determining event, whether grammatical or narrative.

I wonder why Ferretti has not adopted such a mosaic approach, instead emphasizing his hypothesis of story persuasiveness as the exclusive driver for the evolution of language. While persuasive narratives can be extraordinarily relevant to the evolution of language, and it is highly plausible that they contributed to the rise of this peculiarly human phenomenon, they likely did so in concert or in complementarity with other significant factors.

A mosaic theoretical framework is supported by several explanatory reasons. Fossil evidence and new techniques that enable the partial reconstruction of hominin anatomical and cognitive capacities suggest that various traits relevant to language, such as breath control (MAC LARNON & HEWITT 1999), vocal tract structure (R. D'ANASTASIO *et alii* 2013), the ability to manipulate complex tools (STOUT & CHAMINADE 2013), and increasing social complexity (AIELLO & DUNBAR 1993), evolved gradually, in parallel, and both synchronously and asynchronously. These elements likely built upon preceding ones, rather than deriving from a single factor. This conjecture is also supported by neuroscientific evidence, which blatantly demonstrates how language involves various brain areas (Broca's area, Wernicke's area, the angular gyrus, etc.), each associated with different cognitive functions (syntactic processing, semantic interpretation, production, etc.) (HICKOK & POEPEL 2007). This picture portrays language as a mosaic of integrated abilities. Finally, it is highly plausible to conjecture that diverse selective pressures, such as the need to coordinate complex social activities, to enhance cultural transmission and cooperative learning, and to expand symbolic capacities, interacted to produce a composite genesis and constitution of language.

Perhaps Ferretti's hypothesis, so unbalanced in favour of the evolutionary role of the persuasiveness of narratives, is laden with an ideological

conviction, so to speak, aimed at upholding at all costs the priority of thought over language. Similarly, Chomsky often seems convinced – almost at an ideological level – that it is language that plays a determining role in human cognitive and even cultural development. If, instead, one adopts a mosaicist approach, no specific factor is granted catalytic priority in cognitive and cultural evolution. Rather, there is a plurality of elements, aspects, and processes working in concert – though at times incoherently and asynchronously – to bring about the emergence and development of a phenomenon, in this case, language.

Of course, many objections can be raised against the mosaicist hypothesis as well: the fact that it does not provide a plausible reconstruction of how our language came to possess syntax; the fact that animal communication, despite being based on signals and vocalizations, is profoundly different from the human recursive linguistic capacity, thus lacking a clear continuity between the two modes; the lack of adequate empirical support (mostly consisting of fossil evidence) that could directly confirm this perspective. However, these objections, just as they apply to the mosaicist solution, apply equally (if not more so) to Ferretti's explanation, which, at least in some respects, seems to me even more lacking.

5 A mosaic of factors: Toward a pluralistic account of language evolution

Nowadays, Chomsky's model still holds cognitive plausibility, especially due to its rigor in terms of computational applicability. However, it is certainly less credible from an evolutionary plausibility standpoint – less so than Ferretti's hypothesis. And yet, from an evolutionary perspective, the latter appears less plausible than a mosaicist approach, with which it would be fairly compatible. The prospect of a narrative without language, however stimulating, is difficult to characterize conceptually and is not robustly grounded empirically. The same can be said regarding the supposed persuasive efficacy of narrative as an injection valve for evolutionary processes that would have gradually given rise to language.

Therefore, although I am inclined to sympathize with a gradualist perspective on the origins of language – such as Ferretti's – in contrast to the Chomskyan canon, I do not find his solution so solidly argued and, consequently, not entirely convincing.

Above all, because even if, chronologically speaking, narratives could precede other factors in evolutionary epochs, I find it unlikely that they could emerge in isolation as the sole factor that catalyzed the origin and development of language.

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