

Editorial

Words are Noble!

Franca Daniele, MD

Department of Medical, Oral and Biotechnological Sciences
“G. d’Annunzio” University, Chieti-Pescara, Italy

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“Words are noble.
They should never be used to *vincere*,
but rather to *convincere*”

Words are noble; they should always be respected and expressed wisely. Words should never be used to *vincere*, from Latin, meaning ‘to win’, ‘to conquer’, but rather to *convincere* from Latin, meaning ‘to win’, ‘to conquer’-*con* ‘with’, ‘together’. This is especially true for a historic period like the one we are living today, with the pandemic and wars all over the world.

Like cells for the human body, words are the basic structural and functional units of a language, and language is undoubtedly the most *humanum* characteristics. Indeed, humans are the only living beings capable of using a structured set of signs and sounds collectively called language, representing the means through which people communicate with each other both orally and in written form. Language represents also one of the most important social behaviors, and thanks to language, humans have been able to accumulate knowledge and transmit it from one generation to the next. The four main language skills: talking, listening, reading and writing need an apparatus of physical and biological instruments, as well as many crucial physiological mechanisms and processes. In humans, language has been generated thanks to many concomitant elements, such as the development of particular areas of the brain and the creation of new cerebral neuronal routes (Kimura, 1993; Sousa, *et al.*, 2017; Changeux, 2021). Bone structures like the base of the skull, which seems to have undergone a flexion, the changes in the hyoid bone and in the dimension of the canal of the hypoglossal nerve also seem to play a role (DeGusta, 1999). A particular function has been acted by the tongue, the mouth,

and all its other components (Rong & Heidrick, 2022). Respiration control, governed by abdominal and thoracic muscles, has also been reported as a crucial factor (Allott, 1989; Maclarnon, 1999). Of course, all the modifications of the form of the hands and the arms, and the fact that humans passed from a quadruped locomotion to an erect position have also been implicated (Provine, 2017).

The human body and especially the brain interact with and are directly influenced by the environment in which they act. Indeed, both the brain and the body as a whole have undergone important changes in response to the multiple environmental solicitations and stimuli that have given origin to the development of a structured language (Pinker, 2000; Hauser, 2002). In this abstraction, humans have undergone a real ‘evolutionary burst’, and understanding of the complex modifications that have occurred throughout the years, which represent the basis for reaching the complex level of evolution of language, is certainly important. About 170,000 years ago, hominids probably began to generate a real non-oral communication system, which was somewhat similar to the sign language used today; while the shift to oral interaction came many years later (Jucquois, 2007). It seems that the selective pressures operated by the environment may have favored vocalization over gestures (Corballis, 2008; DeGusta, 1999). An advantage of oral communication was that words as opposed to gestures allowed communication in the dark, so interactions could occur also at night. Moreover, another advantage of oral communication was that it permitted bypassing of possible obstacles standing between the two interlocutors, which prevented one from seeing the gestures. Another important function of language was certainly represented by the possibility to send out far away messages of warning and danger. Therefore, the final acquisition of language through the voice has freed up the use of the hands, and thus all the necessary potential for using the hands was made available.

In this context, it is worth noting that this ‘evolutionary burst’ has been followed by a ‘revolutionary burst’, involving and deeply subverting human life in the past years. Undoubtedly, all the technological communication means such as telephones, smartphones and the Internet have definitely devastated the ways people live and interact with each other (Anderson & Tracey, 2001). First, telephones have allowed more prompt oral communications that, just like for our ancestors, can occur in the dark and at very long distances, so freeing up the hands that no longer have to write telegrams, letters and postcards. Later on cell- and smartphones appeared, which replaced traditional telephones, allowing not only immediate long distance oral communications, but also sending of written messages that could reach the interlocutor at anytime, anywhere in the world (Hartanto, *et al.*, 2023). It is interesting to note that, although smartphones allow

both oral and written communications, these latter seem to be more common and have had an immediate spread all over the world due to their low cost (Mahato, *et al.*, 2023). More importantly, smartphones seem to be the communication means mostly used, over tablets and computers (Fortunati, 2023). The worldwide spread of the Internet with its easiness and immediacy has taken charge over all other types of interactions, be they for work or for fun. The Internet has facilitated written communications over oral ones, so again using the hands and returning to that set of signs so dear to our ancestors have taken charge. The Internet advocates even the application of images, which for our ancestors were represented by elementary drawings presenting the surrounding world and events; for us today, they are all types of visual representations, photos and movies (Devi & Devi, 2023). As a consequence of the ‘technological burst’, a return to the hand from the mouth is occurring.

Similarly to our ancestors, today oral communications needing the use of the mouth, allow interactions in the dark and at limitless distances. However, what is extremely amazing is that either when the two interlocutors are near each other or nearby as it occurred for our ancestors, or when the two interlocutors are in two different parts of the world as it occurs through phones and the Internet, oral communications are always an interaction. In other words, oral communications are two-way communications; they need the presence of two human beings sharing a set of sounds that can yield an effective oral exchange. During oral communication, the two parts involved must both be simultaneously active in order to produce an interaction. On the other hand, non-oral communications, requiring the use of the hands can occur at any time, and can run across considerable distances; this was not possible for our ancestors. Similarly to our ancestors, non-oral communications require a set of signs, which of course, today is more developed than that used by our ancestors, which is portrayed by a syntactically and lexically well-structured written language. Today, such signs could be depicted either through the articulated and organized written language, or through photos and other types of more or less complex systems of images produced by the most modern devices like photo- and video-cameras. Furthermore, written communications are not two-way communications, they are no longer an interaction needing the presence of two human beings. Instead, interlocutors can access the messages at their convenience. Consistently, in this type of communication, an interaction is not necessarily produced, since only one part is active while the other one passively receives written communications that might never be read! (Daniele, 2017).

The endless modifications the human body and brain undergo in order to assure effective language articulation and production are certainly fascinating. The constant alternating from the hands to the mouth and backwards, as well as

the back and forth shifting from written to oral communication represent a clear demonstration of the great adaptation capacity of the body and especially, an unconfutable evidence of the enormous plasticity of the brain. Both the body and the brain are astonishingly capable of responding and adjusting to all environmental solicitations and stimuli through modeling, redesigning and reshaping their anatomical and physiological traits. The infinite and continual work of the body and the brain that guarantees language preservation and progression should induce humans to a sapient handling of language and words.

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References

- Allott, R. (1989) *“The Motor Theory of Language Origin”*, Sussex, England, Book Guild.
- Anderson, B. & Tracey, K. (2001) Digital Living The Impact (or Otherwise) of the Internet on Everyday Research American Behavioral Scientist, Vol. 45 No. 3, November 2001 456-475.
- Changeux, J.P. Goulas, A. & Hilgetag, C.C. (2021) A Connectomic Hypothesis for the Hominization of the Brain. *Cereb Cortex*. 31(5):2425-2449. doi: 10.1093/cercor/bhaa365. PMID: 33367521; PMCID: PMC8023825.
- Corballis, M.C. (2008) *“Dalla Mano alla Bocca. Le Origini del Linguaggio”*, Cortina Raffaello Editore.
- Daniele, F. (2017) Is Language the Result of a Necessity? *European Scientific Journal*, ESJ, Vol, 13, No. 29, pp. 24-34. Doi: 10.19044/esj.2017.v13n29p24
- DeGusta, D., et al. (1999) *“Hypoglossal Canal Size and Hominid Speech”*, PNAS Vol. 96, No. 4, pp. 1800–1804.
- Devi, K., & Devi, K. (2023) Roles and Effects of Social Media on Community Development. *Aazadi ka Amrit Mahotsav: Community Science Achievements, Opportunities and Challenges*, 194.
- Fortunati, L. (2023). The smartphone between the present and the future: Five changes. *Mobile Media & Communication*, 11(1), 19-24.
- Hartanto, A., Lee, K. Y., Chua, Y. J., Quek, F. Y., & Majeed, N. M. (2023).

Smartphone use and daily cognitive failures: A critical examination using a daily diary approach with objective smartphone measures. *British Journal of Psychology*, 114(1), 70-85.

Hauser, M.D., Chomsky, N. & Fitch, W. (2002) “*The Faculty of Language: What Is It, Who Has It, and How Did It Evolve?*” *Science*, Vol. 298, No. 5598, p. 1569.

Jucquois, G. (2007). *Language and Communication among Hominids*. *Diogenes*, 54(2), 60-80. Kimura, D. (1993) “*Neuromotor Mechanisms in Human Communication*”, Oxford, Oxford University Press.

Maclarnon, A.M. & Hewitt, G.P. (1999) “*The Evolution of Human Speech: The Role of Enhanced Breathing Control*”, *Am J of Physical Anthropology*, Vol. 109.

Mahato, S., Dutta, D., Roy, M., Santra, A., Dan, S., & Bose, A. (2023). Common Android Smartphones and Apps for Cost-Efficient GNSS Data Collection: An Overview. *IETE Journal of Research*, 1-14.

Pinker, S. (2000) “*The Language Instinct: How the Mind Creates Language*”, New York, Harper Perennial Modern Classics, pp. 13–14.

Provine, R.R. (2017) Laughter as an approach to vocal evolution: The bipedal theory. *Psychon Bull Rev.* 24(1):238-244. doi: 10.3758/s13423-016-1089-3. PMID: 27368630.

Rong, P. & Heidrick, L. (2022) Functional Role of Temporal Patterning of Articulation in Speech Production: A Novel Perspective Toward Global Timing-Based Motor Speech Assessment and Rehabilitation. *J Speech Lang Hear Res.* 65(12):4577-4607. doi: 10.1044/2022_JSLHR-22-00089. Epub 2022 Nov 18. PMID: 36399794.

Sousa, A.M.M. Meyer, K.A. Santpere, G. Gulden, F.O. & Sestan, N. (2017) Evolution of the Human Nervous System Function, Structure, and Development. *Cell.* 170(2):226-247. doi: 10.1016/j.cell.2017.06.036. PMID: 28708995; PMCID: PMC5647789.