

Digital Writing and the new primitive mind

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Abstract

In this paper we introduce our project on Digital Writing as a major area of research at the ISI (International Semiotics Institute). The aim of the project is to question the two major postulates of modern linguistics from *the Course de Linguistique Générale*. These two postulates are a) the arbitrary nature of the linguistic sign, and b) the linear nature of the signifier. We assume that both of these postulates of modern linguistics are challenged by the development of communication technology and the multimedia character of human daily communication. Saussure also asserted spoken language as the primary linguistic system while written language was only secondary, a written representation of the vocal representation and derived from it. The Digital Writing Project begins from Saussure but aligns with Roy Harris and Jacques Derrida regarding the status of 'writing as such' as the primary mode of human communication in the digital era, affirming the prescience of semiology (broadly speaking) with regard to some characteristics of the digital paradigm shift.

Keywords

Arbitrariness, Digital Writing, iconic turn, International Semiotics Institute, participative opposition, writing systems.

Introduction

With the progress of communication technology and especially after the pandemic which brought constraints on face-to-face communication, a constantly growing amount of our daily communication is written rather than spoken. Social media, chatting, sms, emails etc. are all using written language. Due to the multimedia character (pictures videos, reels, memes, gifs, stickers) and the extreme dynamics of the changes of the content in the social media, the digital writing loses the linear nature of the signifier of the traditional spoken or written communication; as well as the arbitrariness of the linguistic sign, this is because of the non-linear, iconic and indexical features of the multimedia. Consequently, we claim the need to return to the study of writing and to define new study methods for Digital Writing. The study methods we propose are rooted in semiotics and semiology. The Digital Writing project depicts the importance of the new study area in writing systems from the past to the future and the different cognitive consequences of using different writing systems (from pictographical systems to phonological alphabets and to digitised communication) with the focus on Digital Writing as such. The

characteristics of digital writing as non-linear and non-arbitrary are not completely new in that some ancient systems of communication (such as cave paintings) and some ancient writing systems (such as hieroglyphs) are non-linear and non-arbitrary as well. We thus see a continuity between past and future of human communication systems and we propose a simple model based on theory of participation to describe the potentiality for a non-alphabetical or non-phonological writing. Writing systems evolve independently from language evolution. We propose some kind of evolutionary linguistics applied to writing systems and this can go as far as to the pre-linguistic era on one hand and the post-linguistic iconic turn on the other hand. Writing systems have never been a study object of linguistics, after De Saussure and his definition of modern linguistics the writing was explicitly excluded from the study program of linguistics.¹ Two major postulates of modern linguistics from the CLG (Saussure 1916) are a) the arbitrary nature of the linguistic sign, b) the linear nature of the signifier. With the development of communication technology and the multimedia character of the human daily communication, we assume that both of the postulates of modern linguistics are challenged. Besides the two postulates, Saussure directed modern linguistics to comprehend spoken language as the primary linguistic system while the written language was only the secondary sign system, a written representation of the vocal representation and derived from it.

Based on already existing research on the theoretical study of writing as not necessarily a secondary sign system by Roy Harris and ultimately also Jacques Derrida, and with support of data from digital communication, we are presenting a hypothesis about digital writing as the future major communication system. A constantly growing amount of our daily communication is *written* rather than spoken. For this reason, we see the need to incorporate the study of writing systems into the area of linguistics. Social media, chatting, sms, emails etc. are all using written language. This written language deviates from the classical written language we know from the books. It has characteristics of what used to be called spontaneous ‘spoken’ language. The non-adherence to the norm, grammar, spelling is not the only difference between the digital writing and the classical writing. Due to its multimedia character (pictures, videos, reels, memes, gifs, stickers) and the extreme dynamics of the changes of the content in the social media, the digital writing is no longer arbitrary nor linear. This can lead to some cognitive consequences for users in terms of applying different cognitive mechanisms when receiving and producing digital content as the major means of communication. Experiments with eye-tracking methods about the cognitive aspects of different writing systems are currently being done at Palacký University. This paper presents some theoretical assumptions about the continuity between the pre-alphabetical cognitive processes (pictographic writing or primitive societies without any writing system at all) and post-alphabetical cognitive processes (Digital Writing).

Towards a new definition of writing

Let us start with a brief excursion into how different authors defined writing in the more extended and less orthodox way.

¹ The supposed expulsion of writing by Saussure, especially as that expulsion is characterized by Derrida, is challenged persuasively by Russell Daylight (2012[2011]).

Roy Harris is probably the most prominent contemporary linguist who has been interested in re-thinking writing, especially in the book with the very same title *Re-Thinking Writing* from 2000. In this publication, Harris formulates the very problem of the contemporary linguistics to treat writing as nothing but a secondary sign system, that is, a representation of the spoken language:

Implicitly or explicitly, writing is regarded as 'nothing more than an ingenious technical device for representing spoken language, the latter being the primary vehicle of human communication. It is this conceptual model that needs rethinking.'²

In his new conceptualization of writing, Harris mentions the French philosopher and semiotician Jacques Derrida, famous for his own re-definition of writing from the famous book *Of Grammatology* (*De la grammatologie*)³. Derrida talks about *écriture avant la lettre* (writing before the letter) which is a concept of writing pre-existing writing systems, but especially pre-existing the alphabetical writing systems. This is because of the notion of letter in Derrida's concept *écriture avant la lettre*. Another Derridean notion from the same book is the notion of *arche-writing*. It is not clear what exactly Derrida means by these terms, and we can speculate about many possible interpretations. To some extent, and especially in the second part of the book, the content is more focused on the anthropological perspective on the evolution of writing systems, with a detailed analysis of Jean-Jacques Rousseau's book *Essai sur l'origine des langues*⁴. Derrida speculates about communication before the arrival of language, in primitive pre-linguistic societies and the very early forms of human communication. Before the arrival of the articulated language, communication was happening by some kind of "writing" but here writing is a term designating any communication which is not spoken by articulated speech, e.g. paintings, gestures or, primitive singing, even spontaneous cries (non-linguistic vocalisations). The question of language evolution remains to be solved, but the proposal is as old as the eighteenth century (Jean-Jacques Rousseau but also Étienne Bonnot de Condillac⁵) that gestures were the first primitive modality for human communication and this has been recently supported by experimental data⁶. Even if not generally accepted, the hypothesis about the evolution of language from gesture has been also present in many of the most important contemporary works on evolution of human language⁷. Of course, it still remains a hypothesis, and the evolution of articulated language is hard to recapitulate from the ex-post perspective (in the same way as the evolution of species). One thing is the very formation of articulated language, but another and maybe more prominent question is the relation between the articulated language and the

² Harris, R. (2000). *Rethinking Writing*. London: Continuum, XI.

³ Derrida, J. (1967) *De la Grammatologie*, Paris: Les éditions de Minuit.

⁴ Rousseau, J.J. (2012 (1781)), *Essai sur l'origine des langues*, éditions La passe du vent.

⁵ Condillac de EB, trans H Aarsleff (2001 (1746)). *An essay on the origin of human knowledge*. Cambridge, UK: Cambridge University Press.

⁶ Fay Nicolas, Walker Bradley, Ellison T. Mark, Blundell Zachary, De Kleine Naomi, Garde Murray, Lister Casey J. and Goldin-Meadow Susan (2022). Gesture is the primary modality for language creation. *Proc. R. Soc. B*. 2892022006620220066 <http://doi.org/10.1098/rspb.2022.0066>

⁷ Corballis, Michael C. (2002). *From hand to mouth: The origins of language*. Princeton University Press., Tomasello M. (2008). *Origins of human communication*. Cambridge, MA: MIT Press.

phonological/ alphabetical writing. It is especially disputable what kind of articulation of language could pre-exist alphabetical writing.

Some authors, like Roy Harris, suggest that the very way we are trained in the modern times to articulate language since childhood is too narrowly connected to the phonological alphabet. Take as an example spelling competitions in elementary schools. Consequently, we cannot think about language dissociated from the phonological alphabet and since the mind and language have always been connected, the alphabetical understanding of language also affects our way of thinking. That is, phonologically articulated language leads to analytical thinking. The history of writing, according to Harris, since the Greeks, dictated the way we think, our rationality. Roy Harris dedicates to this topic another of his books *Rationality and the Literate Mind*⁸. Compared to societies without writing systems, our thinking is clearly different. Harris is maybe one of the few who directly linked this difference in thinking to the very writing system.

How can writing systems affect a way of thinking? It might seem unclear at the first glance, but the connection is straightforward. Phonological thinking was at the basis of ancient Greek philosophy. If we think about Aristotle and the law of the excluded middle, it becomes clearer. In phonology as defined by Trubeckoy⁹, oppositions are always exclusive, one phoneme cannot be anterior and posterior at the same time, or labial and non-labial at the same time. The impossibility of superposing two contradictory features (distinctive features) at the same time guarantees the definition of a phonological unit: a phoneme is defined by exclusive oppositions, by phonemes with which it is in opposition. /p/ is /p/ because it is not /b/ with which it creates an exclusive binary opposition (see the difference between *booh* /bu:/ and *pooh* /pu:/). /n/ is /n/ because it is not /ŋ/ with which it creates an exclusive binary opposition (see the difference between *sin* /sin/ and *sing* /siŋ/).

The phonological writing, the phonological alphabet perfectly served the modern man in the times of first and second industrial revolution, all the technical progress of the last centuries. The binary code in programming (0 vs 1 as the basic binary opposition) is a perfect example of exclusive thinking of the technocratic society derived, implicitly or explicitly, from phonology and from phonological alphabets as the major product of the technological progress so far: the digital society we live in is the final product of what Roy Harris described. The digital is the complement of the analogue¹⁰; the digital is exclusive, binary, 0 or 1, no ambiguity. Mainstream accounts of modern genetics even reduce life itself to a digital phenomenon – the ‘genetic code’ has ever been the portrait of such attitude¹¹, yet in the last decade the re-definition of the genetic

⁸ Harris, R. 2016 (2009). *Racionalita a gramotná mysl*, Praha: Kosmas.

⁹ Trubeckoj, N. S. (1930). Proposition 16. Über den Sprachbund. In: *Actes du premier congrès international des linguistes à La Haye*, Leiden.

¹⁰ This distinction is pivotal for the foundational text of biosemiotics by Jesper Hoffmeyer (1996[1993]), *Signs of Meaning in the Universe*.

¹¹ Indeed, the very first definition of the genetic code consulted the pioneers phonology theory in linguistics, such as Roman Jakobson. See also Zolyan S. On the minimal elements of the genetic code and their semiotic functions (degeneracy, complementarity, wobbling). *Biosystems*. 2023 Sep;231:104962. doi: 10.1016/j.biosystems.2023.104962. Epub 2023 Jul 10. PMID: 37437772, Toutain, A.-G. (2013). Vivant et langage. Regard sur le débat François Jacob / Roman Jakobson. *Cahiers Du Centre De Linguistique Et Des Sciences Du Langage*, (37), 261–278. <https://doi.org/10.26034/la.cdclsl.2013.715>.

code and the genetic in general is becoming the *new* mainstream in biology, with a more analogue and non-exclusive understanding of the biological codes¹².

Not only in biology, but also in communication, the situation changes a bit and we can observe some paradox of the exclusive binary thinking and the currently emergent new form of Digital Writing. Since the COVID-19 event, technological progress has been too rapid to even be captured by exclusive analytical oppositions. Nowadays, with the paradigm shift in communication, we cannot be so that sure about exclusive oppositions anymore. The internet gives an immense opportunity for self-expression, almost unlimited opportunities to use all kinds of language and in all possible directions, in multi-media ways and without bothering with the strictness of linearity as a condition for a phonological spoken chain. Contemporary man wants to escape the dictates of phonological linearity and Digital Writing gives him this option. Non-linear in space, non-linear in time, non-linear in mind. We can have a plurality of opinions, going all directions. This is also what is characteristic of digital writing: the freedom of opinion, inclusion, and the plurality of opinions. Thanks to Digital Writing, we are free to escape the linear. We can travel in space and in time thanks to technology, we can escape the alphabet, using exclusively emojis or memes for communication. The trend is still growing, emojis and memes are becoming used on a daily basis in the official communication of the offices, state organs, business language is becoming full of emojis of different sorts. The speed of technological progress and the speed of business continually outpace linear speech. For this reason, language users of all kinds are escaping the traditional speech (or its written variety) and switching to digital multimodal and multi-media writing. And this is exactly where we were before the arrival of articulated language.

Rationality, non-linear cognition, and the Law of Participation

In the previous chapter we brought the idea that current forms of Digital Writing share the features of non-linearity and non-exclusivity with the pre-linguistic or pre-written forms of human communication. This is not supposed to be any kind of a romantic or back-to-the-roots attempt. The contemporary man is in his communication strategies closer to pre-linguistic communication, but this does not imply regress. The modern form of rationality according to Harris is derived from the Greek phonological alphabet and the necessary linearity of speech. Harris then presents examples of a different type of human rationality, not based on the linearity of speech but rather on the continuity of concepts: this is the rationality used by the primitive aborigine societies. Harris is also inspired by the work of French anthropologist Lucien Lévy-Bruhl, the author of the theory of Law of Participation¹³.

Lévy-Bruhl observed that the cognitive mechanisms of the primitive/aboriginal societies are incompatible with the western thought and the western logical system. The most striking incompatibility resides in the very logical system upon which rationality operates. For example, the excluded middle does not represent a logical problem for aborigine/primitive mind. A person can be dead and alive at the same time, a person can be a human and an animal at the same time

¹² Švorcová, J., Lacková, L., Fulínová, E. (2023) Evolution by habit: Peirce, Lamarck, and teleology in biology. *Theory in Biosciences* 142(4):1-12, Švorcová J (ed) (2024) Organismal agency. Biological concepts and their philosophical foundations. Springer, 978-3-031-53626-7.

¹³ Lévy-Bruhl, L. 1996 *L'âme primitive*, Quadrige (Paris. 1981), PUF; orig. pub. as 1963

(the culture of totems), a person can be an animal and a magician at the same time (the primitive religious systems). This kind of relation was named by Lévy-Bruhl a *participation*, that is, one element participates in the other without contradicting it: death participates in life for example. Being dead also means being alive and being alive also means being dead. Lévy-Bruhl tried to propose a theory which would accurately describe these differences between the western and non-western mind. He was not very fortunate in his formulations, and his contemporaries from the academic sector accused him of being Eurocentric and holding colonialist views. He was also criticised for spreading stereotypes and simplifications about the aborigine societies. Lévy-Bruhl tried to face the criticism and defend his theories, re-formulate the Law of participation in such a way that it is impossible to confuse it with colonialist ideas, the re-formulation was posthumously published¹⁴. The author insists that, just because the two ways of thinking (western and non-western or primitive) are different, does not necessarily imply that one is superior to other, but because of the topic is very delicate, Lévy-Bruhl was forced in some places to re-formulate his ideas. For this reason, he proposed the term *sublogic* instead of *prelogic*, when sublogic is a logical system combining both prelogical and logical ways of thinking. Harris points out that most primitive societies characterised by participative thinking do not use any form of writing at all. During the cultural evolution of western man, the arrival of the phonological alphabet greatly helped in masking this principle.

Harris is not the first linguist to implement the work by Lévy-Bruhl in his theory. Before Harris, the Danish linguist and semiotician Luis Hjelmslev elaborated a great linguistic theory based on participative opposition¹⁵. As a prominent member of the structuralist movement in linguistics, he was familiar with the work by Trubeckoy and his definition of phonemes in terms of exclusive binary oppositions. Hjelmslev observed that not all linguistic categories are definable in terms of binary oppositions¹⁶. When we move from phonology to “upper” linguistic areas, such as morphology or lexicon, the definition of linguistic units by means of exclusive oppositions becomes more complicated. It would be limiting to define, for instance, the word *man* by an exclusive opposition with the word *woman*, since the meaning of the word *man* is not limited to an opposition with the word *woman*. Imagine the following sentence: “All men are wise”. In this case, the meaning of the word *men* is not definable by opposition to *women*. Hjelmslev observed, however, that in some way, there is a relation of opposition, and resolved it by calling this kind of opposition a participative opposition (borrowing the term from Lévy-Bruhl). The term *women* is in opposition with the term *men*, but at the same time is included within the very term *men* – it *participates* in the meaning.

This paradoxical situation is, according to Hjelmslev, by no means an exception within the language system and it is not merely a particularity of semantics or lexicon. In a similar manner, all morphological categories are definable by participative oppositions. The case system, verbal tenses, gender and number of substantives, all these categories, enter into the participative oppositions. As a result, the accusative is opposed to the nominative, but is included within it at the same time. The plural is opposed to the singular but is also included within it. The past is

¹⁴ Lévy-Bruhl, L. *Carnets* (1949), PUF.

¹⁵ Lacková, Ľudmila. (2022). Participative opposition applied. *Sign Systems Studies*, 50(2-3), 261–285. <https://doi.org/10.12697/SSS.1>

¹⁶ Hjelmslev, L. 1935 La catégorie des cas: étude de grammaire générale, *Acta Jutlandica*, Universitetsforlaget,

opposed to the present but is at the same time included within it, etc. How is the accusative included in the nominative, the plural in the singular and the past in the present? Firstly, it is by syncretism of different functional units (nominative and accusative) in one morphological form (nominative) within a given paradigm. Secondly, it is by the syncretism of different meanings (past, present) in one morphological form (present) in a specific context (the historical present for instance). In the case of the plural and the singular, one can also speak of metonymy.

The above-mentioned examples of participative opposition between cases, tenses and the grammatical category of number illustrate the way language disobeys the laws of classical logic. By participative opposition, contradictory features coexist, with one and the same unit being accusative, vocative and nominative, all at the same time, without losing its identity. A linguistic system is free when compared to the logical system that corresponds to it. On the axis of the logical system, it can be oriented differently, and the oppositions it creates are subject to the law of participation: there is not an opposition between A and non-A, the only oppositions in the linguistic system are between A on the one hand and A + non-A on the other hand.¹⁷ Hjelmslev points out the anti-logical nature of the linguistic system, a system in which the basic prerequisites of Aristotelian logic (identity law, law of excluded third) do not work. Such a system is called a sublogical system. Hjelmslev claims that only a sublogical system can describe language phenomena. The core of the work of Hjelmslev lies in the opposition between an intensive (precise) term and an extensive (vague) term.

Consubstantiality is another term introduced by Lévy-Bruhl. When a savage sees his own image (shadow, reflection, etc.) it is not a more or less faithful reproduction of his features. It is the consubstantiality that he imagines and feels between them and him. But he can also imagine and feel this essential participation between him and a being whose external appearance is different from his own. The consubstantiality is not only a concern of visual perception of images in primitive societies, but also a phenomenon that goes far beyond perception. It goes to the very mental processes and is also reflected in the language of primitive societies. As an example, the “primitive” denomination of things in the world even becomes incomprehensible to our understanding. In the culture of Australian aborigine people, for example, the name for the sun and the name for a white cockatoo are considered to have one shared meaning. This is not a simple synonymy; however, the fact is that the very signification of the word is the sun and the white cockatoo at the same time. The concepts of the sun and the white cockatoo are, in this culture, consubstantial, in other words, for the aborigine people, a situation where something is the sun and at the same time the white cockatoo, is absolutely normal. For Aboriginal people, the terms sun and white cockatoo do not exclude each other.

The law of participation, characterized by consubstantiality, disobeys the classical logic law of the excluded middle. Ekaterina Velmezova already in 2012 connected the law of participation with the contemporary digital communication and she proposed a term of *modern primitive*.

But this question is worth further study. In the age of proliferation of mass media and Facebook, the ghost of *primitive thought* is once again present in globalized culture. The replacement of logic with clicking as the main mechanism of thought paves the way.

¹⁷ Hjelmslev, L. (1935). La catégorie des cas: étude de grammaire générale, *Acta Jutlandica*, Universitetsforlaget, 214.

If a contemporary person were to say *I am my web page*, the Bororó *participation* in red parrothood is evidenced in our part of identification with computer-generated miracles.¹⁸

Twelve years after the publication of the cited paper by Velmezova, we can state that the identification of computer-users with “computer-generated miracles” in the age of AI boom, metaverse and Chat GPT acquires a much more intensified meaning. There is no question about whether the contemporary man is or is not subject to the Law of Participation. We are identified with our cell phones, with our online profiles (and how many of them), with our digital avatars, with our personal computers and bots of different kinds. But differently from the tone of Velmezova, we do not see this situation as alarming or a threat to our human identity. On the contrary, thanks to the mechanism of participation, we are not losing our identity, it is still there, it is only extended and participating on the new digital identity. Of course, the terminology and the theoretical framework to describe what is happening to our identity, to our language and communication is still to be determined. This is one of the goals of the Digital Writing project.

What actually is the iconic turn?

In the final chapter we can use the anthropological work in the participative opposition to explain the logocentric problem. The discussion around digital communication and the cognitive consequences has been around for the last decades under the general umbrella topic of the iconic turn^{19,20}. The notion of the iconic turn replaces the linguistic turn related to glottocentrism and proposes the idea that images (and not linear language structures) are construing human cognition and reasoning. This theory is supported by the internet boom and the emergence of communication online which is multimodal, multimedial and not strictly verbal. Some authors²¹ use the notion of the iconic turn to argue against the glottocentrism usually related with structural semiology and understanding of language as the primary modelling system in semiotics. The notion of the iconic turn and its relation to glottocentrism is built upon two oversimplifications. Firstly, the term icon as opposed to symbol is simplified and uprooted from Peirce’s classification of sign types. Secondly, and what is more relevant for the purposes of this paper, the notion of glottocentrism is built upon a somehow distorted reading of the structural linguists. If we are to understand the notion of the iconic turn in the context of glottocentrism or logocentrism as Olteanu suggests²², it is necessary first to investigate the very notion of logocentrism and to go back to the structuralist and post-structuralist theories about language.

¹⁸ Velmezova Ekaterina and Vlasiner Jaan, The Eternal Return to the Issue of "Primitive Thought": L.Vygotsky and N.Marr looking at L.Lévy-Bruhl, *RIFL* (2012) vol.6, n.2: 226-234, DOI 10.4396/20120720, 233.

¹⁹ Mitchell, W.J.T. *Iconology: Image, Text, Ideology*, Chicago, The University of Chicago Press, 1986

²⁰ Bisanz, Elize (2016). *Overcoming the Iconic Turn: Cultural Concepts of Images*. Hamburg, Peter Lang.

²¹ Olteanu, Alin & Campbell, Cary (2023). Biosemiotic systems theory: an embodied and ecological approach to culture. In Rodríguez and Coca (eds.) *Approaches to Biosemiotics*. Biosocial World: Biosemiotics and Biosociology Vol. 1, Ediciones Universidad de Valladolid.

²² Olteanu, Alin & Campbell, Cary. (2023). Biosemiotic systems theory: an embodied and ecological approach to culture. In Rodríguez and Coca (eds.) *Approaches to Biosemiotics*. Biosocial World: Biosemiotics and Biosociology Vol. 1, Ediciones Universidad de Valladolid, 76-79.

Bennett²³ (following Derrida²⁴) proposes the hypothesis of alphabetical bias: rather than refuting the idea of language as primary modelling system as such, we propose that it might be the alphabetical (or *phonological* in the terminology of Bennett, because based on phonological alphabets) understanding of language in western culture as ‘arbitrary’ or ‘symbolic’, which is at the centre of the problem. Bennett speaks about “a conflation of phonocentrism (a charge which Daylight allows against Saussure) with logocentrism”²⁵. In the second place, it should be stated that we are aware of the less than ideal usage of Peirce’s terminology in many semiotic disciplines and the very popular simplification of the terms icon-index-symbol, yet the notion of the iconic turn describes quite well what we are interested in as a framework. For this reason, we will define the iconic turn as the turn in human cognition and communication where the visual, or better, pictorial, started to take over the spoken or written verbal language. Here the term iconic is used in opposition to symbolic by which the verbal language is meant. We prefer the notion of *de-linearization of the speech* because we are convinced that it is the linear nature of the signifier which is mostly in contrast with the digital media and digital communication. Yet, if we want to use the already existing notion of the *iconic turn* and if we define internet communication as iconic rather than symbolic, we have to keep in mind also the fact that this simplified distinction between icon and symbol might apply only to some, in particular alphabetical, writing systems. Other types of writing systems are equivalently iconic as internet communication is, and they are equally representing the whole idea/concept rather than phonemes (we are talking about ideograms or pictograms). Indeed, many scholars but also popular media already points to the resemblance between the Egyptian hieroglyphs and the internet emoticons/emoji (<https://medium.com/beluga-team/emoji-vs-hieroglyphs-a-primitive-form-of-language-a228f52e4bc2>). For this reason, we find it essential to study the history and evolution of writing systems before making any generalisations about an iconic turn and the refusal of language as primary modelling system. Both the terms of the linearity of the signifier and the symbolic/arbitrary nature of language are questioned with the arrival of the iconic turn in communication. Nevertheless, we want to argue, together with Derrida, that even if the iconic and non-linear character is striking in the communication technologies era, it might be that this kind of language, a de-linearized language (or writing), actually *preceded* speech.

In general, we can talk about *extended* writing. This definition of writing does not exclude alphabetical writing, but it extends the term to apply to any kind of written (in the sense of non-spoken) sign system or communication. Of course, the inevitable question arises, whether writing is a system or a process (in the terms of Louis Hjelmslev), in other words whether it belongs under the domain of signification or the domain of communication (in terms of U. Eco).

We would like to say that it is both, in the sense of signification as means of knowing the material world around us and communication as communicating about this knowledge with others are connected in praxis:

²³ Bennett, Tyler. (2021). *Detotalization and retroactivity: black pyramid semiotics*. Tartu University Press. 10.13140/RG.2.2.28140.49288.

Bennett, Tyler James. "Second-Generation Semiology and Detotalization" *Linguistic Frontiers*, vol.4, no.2, 2021, pp.44-53. <https://doi.org/10.2478/lf-2021-0010>.

²⁴ Derrida, J. (1967). *De la Grammatologie*, Paris: Les éditions de Minuit.

²⁵ Bennett 2021, 25

a way of knowing the objects of a universe of discourse always implies a praxis. Since, on the other hand, every praxis implies the knowledge of the reality upon which this praxis is exerted, knowledge and praxis are inseparable and, in consequence, it can be said, inasmuch as we have said that the sciences of man have as their object the diverse ways of knowing material reality, that the sciences of man have as object the diverse forms of praxis exerted upon material reality.²⁶

As an example, with digitised communication, we use the word 'texting' and this term includes both the system and the process of using short text messages (texts) to communicate. Especially with digital writing, we cannot ever totally separate system from process or signification from communication since they are connected through an ongoing praxis on the internet. The repertoire of emojis or memes cannot be understood as a semiotic system in the same sense that language is a semiotic system with a clearly defined repertoire of phonemes/letters and words. New emojis and new memes are introduced on a daily basis, and they immediately spread into usage (communication). Surely, also in language new phonemes or letters can be introduced to an alphabet or new words can be added to a lexicon, but these processes are quite slow, usually happening over decades or centuries.

Conclusions

In this paper we tried to delineate a brief overview of the Digital Writing research project and we tried to illustrate the problematic definition of the turn from spoken communication to digital communication from the viewpoint of anthropolinguistics and evolutionary linguistics. We have seen the basic literature for this research, starting with structural anthropology and structural linguistics, we mentioned authors like Derrida, Lévy-Bruhl and Harris. The definition of Digital Writing is still in the process of exploration. We define the participative opposition as the major theoretical tool for the research in the domain of Digital Writing. Participative opposition allows contradictory elements to be included in each other, in some kind of fold where the two opposite ends of a line come together. Our new ways of communication and the online hybrid space are bringing us back to our pre-linguistic and pre-written states of human cognition.

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²⁶ Chávez Barreto, Israel (2022), *The semiotic theory of Luis Jorge Prieto*. Tartu University Press, 100.

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Digitálne písmo a nová primitívna myseľ

V tomto príspevku predstavujeme výskumný projekt o digitálnom písaní ako jednu z hlavných oblastí výskumných aktivít organizovaných v rámci ISI (Medzinárodný inštitút semiotiky). Cieľom projektu je spochybníť dva hlavné postuláty modernej lingvistiky z *Course de Linguistique Générale*. Tieto dva postuláty sú a) arbitrárna povaha jazykového znaku, b) lineárna povaha označujúceho. S rozvojom komunikačných technológií a multimediálnym charakterom každodennej ľudskej komunikácie predpokladáme, že oba postuláty modernej lingvistiky sú spochybňované. Okrem týchto dvoch postulátov Saussure nasmeroval modernú lingvistiku na chápanie hovoreného jazyka ako primárneho jazykového systému, zatiaľ čo písaný jazyk bol iba sekundárnym znakovým systémom, písomnou reprezentáciou vokálnej reprezentácie z nej odvodenou. Na základe teoretickej štúdie písma ako nie nevyhnutne sekundárneho znakového systému od Roya Harrisa a napokon aj Jacquesa Derridu a s podporou údajov z digitálnej komunikácie predkladáme hypotézu o digitálnom písaní ako budúcom hlavnom komunikačnom systéme.

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