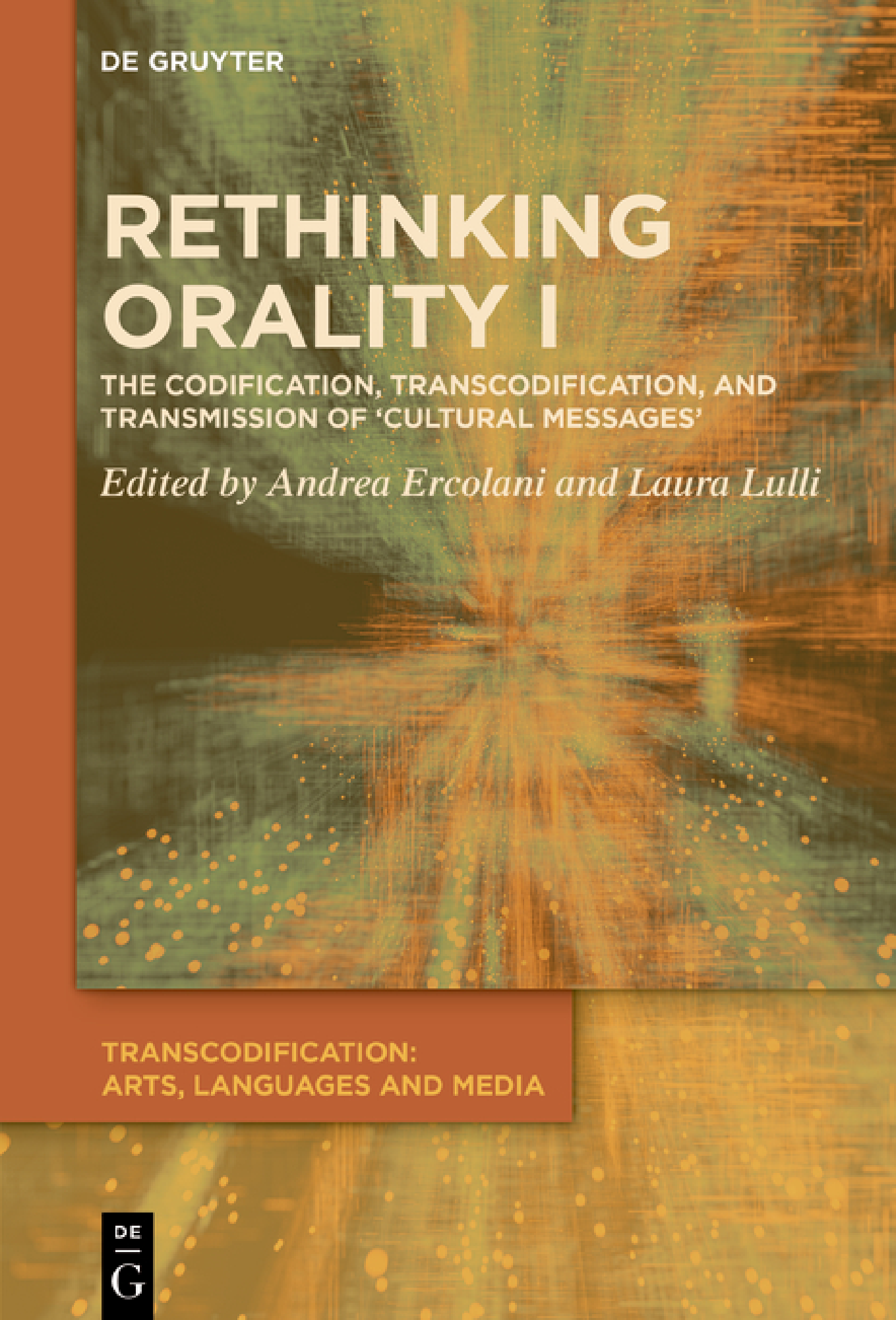
DE GRUYTER
RETHINKING ORALITY I
THE CODIFICATION, TRANSCODIFICATION, AND TRANSMISSION OF 'CULTURAL MESSAGES'
Edited by Andrea Ercolani and Laura Lulli
TRANSCODIFICATION: ARTS, LANGUAGES AND MEDIA
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Rethinking Orality I

Transcodification: Arts, Languages and Media

Edited by
Simone Gozzano

Volume 1

Rethinking Orality I

Codification, Transcodification and Transmission of 'Cultural Messages'

Edited by
Andrea Ercolani and Laura Lulli

DE GRUYTER

The series is funded with the grant of the Department of Excellence (2018-2022) awarded to the Department of Human Studies of the University of L'Aquila by the Italian Ministry of Education, University and Research (MIUR).

ISBN 978-3-11-071395-4
e-ISBN (PDF) 978-3-11-075198-7
e-ISBN (EPUB) 978-3-11-075206-9
ISSN 2702-7732
DOI https://doi.org/10.1515/9783110751987

Library of Congress Control Number: 2021949681

Bibliographic information published by the Deutsche Nationalbibliothek
The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data are available on the Internet at http://dnb.dnb.de.

Printing and binding: CPI books GmbH, Leck

www.degruyter.com

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Andrea Ercolani and Laura Lulli

Introduction. Rethinking Orality: Some Reasons for a Research

Classicists, and especially those interested to the archaic Greek culture, have to deal with one crucial issue, whose relevance is now clear also for the understanding of the literary systems of other cultures, in the Mediterranean area or even beyond, and in different periods: the 'discovery' or the 'rediscovery' of orality, with all its complex and often elusive mechanisms in the nodal phases of production, publication and transmission of a literary text.

Dealing with ancient Greek literature, philologists – often obsessed by the quest for ideal archetypes as close as possible to the original intentions of their putative authors – have increasingly found themselves grappling with elusive textual entities, whose nature could not be the mere consequence of a clear, 'vertical' transmission articulated in well – defined branches or 'families'. But, when applied to archaic poetry, such ecdotic attitude often turns into aporetic conclusions, which can be resolved only if the focus is shifted from the abstract poetical 'original'– thought, made and disseminated exclusively through writing – to the effective nature of extant textual products, which hide, under their refined stylistic texture, a cultural message originally formulated in an oral form. And this aspect, which is crucial especially for the Homeric epic poetry, has been very well highlighted by Luigi Enrico Rossi, according to whom the Homeric poems are a "testimonianza" of oral poetry,[1] a mixture of voices, signs, forms, stylistic devices, narrative schemes and sequences, now inserted in a written textual grid, but still echoing the original oral *facies*.

Though its role has been variously declined by scholars in their interpretation of Homeric poetry, orality has involved an inevitable shift of attention from the text *per se* to the text as the result of a complex communicative mechanism, developed in a specific historical context, in which the phases of elaboration, publication and diffusion of poetical works were determined and influenced by a variable mix of spoken and written words. Moreover, in such phenomenon the oral dimension maintained a function until Late Antiquity and even beyond.

1 See Rossi 2020, 34 "[...] resta una terza ipotesi: che, a cavallo fra oralità e scrittura, i poemi siano un composto, in verità per gran parte irreversibile ma almeno riconoscibile come tale: in questo caso di oralità essi sarebbero solo *testimonianza*".

https://doi.org/10.1515/9783110751987-001

Since the 19th century,[2] the understanding of such elements has entailed a plurality of interferences between textual studies and a series of other disciplines, such as anthropology, linguistics, ethology and, more recently, even cognitivism, which, through the most diverse methodologies, have made it possible to better focus on the essential aspects of the Homeric poems. Any effort to retrace even a small part of this history becomes a journey along the paths of different and variegated lines of thought, joining personal histories and intellectual experiences beyond the boundaries of disciplinary specialisms, across different continents and dramatic events (the World Wars are significant *caesurae* for classics as well).

We may just think about the two fundamental stages of the modern developing of this path: on one hand, the strong compromise between anthropology and literary and philological studies elaborated by Gilbert Murray, who, proposing a close parallel with the Holy Scriptures and adopting the idea of a traditional book – capable of incorporating history and culture of an entire people –, suggests to consider the *Iliad* and the *Odyssey* as "ancient traditional book";[3] and, on the other hand, the contribution of the anthropological dimension in the investigations on Homeric poems conducted by Milman Parry and Albert Lord,[4] who, noting the very high incidence of formularity in the poems, connected its origin to a fundamentally oral and improvisational system, substantiating this hypothesis with a systematic comparison with the contemporary epic oral traditions of the bards still active in the Balkan area.

The effects of these critical perspectives, variously taken up or opposed in the history of studies, proved to be disruptive in the approach to the Homeric text, as they contributed to highlight one unavoidable element: the level of antiquity of the traditions stratified in a real book of culture, in which the singers did not show their solipsistic and self-referential skill to create an original work of art, but constantly resorted to a complex system of myths, beliefs, stories that are part of the cultural baggage of an entire civilization. In other words, through effective tools, such as memory, formula, repetition, and cyclical nature of the story, they continued to reenact and to revitalize the expressive potentials of the oral communicative system.

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2 A central role for the 'rediscovery' of the function of orality in the Greek culture was played by the intuition developed in Wolf 1795, who first understood its dominat presence in the Homeric poems; but this concept was properly exploited only by Lord 1960 and by Parry 1971. For a recent overview of the impact of the oral studies on the interpretation of the Homeric poetry see e. g. Ready 2019, with further bibliography.

3 See Murray 1907, 91–252.

4 See note 2 above.

However, even today the debate on the nature of Homeric poems and, ultimately, on the pre-eminent characteristics of the literary products of the archaic period of the Greek culture is still hot and far from showing univocal critical positions. This volume, which is the result of a cycle of seminars held in 2019 in the Department of Human Studies of the University of L'Aquila, wishes to offer a further overview of some of the most recent developments, focusing on the complex role of orality in Greek literary culture and considering the Homeric poems as objects which convey an extremely elaborate and refined cultural message, at a chronological level, and under communicative conditions, different from the other European literary cultures.

In order to offer a more detailed picture, we asked for the help of other disciplines, ranging from cognitivism and linguistics, with their ability to analyze the primary brain mechanisms at the origin of cultural communication, to ethology, with its tools for examining communicative systems in the animal world, not devoid of interconnections with the elaboration and dissemination of concepts and messages in the human world. The contributions of such disciplines can allow us to explore the first stages of this research journey, which will continue with further steps dedicated to other interpretative path that can provide a multifarious sets of considerations to better highlight the complexity of the cultural message embedded in the archaic epic poetry (see Ercolani/Lulli 2022).

Some milestones of this path are:

1. The analysis of the neuroscientific mechanisms at the basis of the creation and the reception of complex cultural messages, with a special focus on the poetic experience of the Homeric poems.
2. The survey of the processes of codification and transmission of traditional knowledge in human groups thanks both to orality and writing, and with a specific reflection on the centrality of the educative system in such phenomenon.
3. A view on other applications of the oral communication system in the Greek culture at the end of classical age, with a special attention to the Platonic theorical perspective.
4. A glimpse at the possible contribution of gender studies in the development of the communicative system of the epic poetry.

All these steps have been thought to build up a path that can lead to a dialogue or, in some cases, to the recovery of a dialogue between classics and other disciplines, as the necessary condition to get a better understanding of the mechanisms of literary communication in ancient Greece.

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Simone Gozzano

The Sources of Orality: Belief, Opinion, Acceptance

Abstract: At the roots of human orality lies our faculty of language. This is strictly intertwined with our capacity for abstract thoughts. Such thoughts have assumed different forms and varieties. In this paper, I explore some of them as they appear in our present cognitive life and as they have been described by philosophers and cognitive scientists. They result to be of different levels of abstraction and complexity, but a model for their integration is needed.

Keywords: Beliefs; opinions; acceptance; doxastic states; subdoxastic states.

1 Introduction

Searching the origins of human language and human thought is a puzzling and complex enterprise. Puzzling inasmuch we do not know how to establish that the result has been achieved; complex because many disciplines could be involved in the process, ranging from philosophy to cognitive science, physical and cultural anthropology to philology. Surely, though, we may find elements for this search in the cognitive ability of different species of animals, by assessing their cognitive capacities and projecting them backward, in the ancestral days of our own species. In this looking back, we should consider how, from simple calls devoted mainly to inform and alert individual belonging to the same species or group with respect to what is happening in the surrounding,[1] we develop this effective way into something different. In particular, into something that becomes the source of a fundamental bonding for the group itself. From the fact that an alarm has had an adaptative role for the group, we get into the value that the group is formed and forged through such a result, which becomes the cementing element that establishes the group itself and allow it to flourish. In this, orality has its sources in the social bonding among individuals. Once the simple calls have been developed into a more sophisticated forms of thought, the bonding become more and more sophisticated. Storytelling is one of the ways in which social relations are fostered, maintained, and developed. It

1 Consider the kind of signals that are in play in vervet monkeys, alarm calls for the presence of snakes, eagles and other potential predators, as described by Cheney/Seyfarth 1990.

 https://doi.org/10.1515/9783110751987-002

seems natural to consider this capacity as a natural development of evolved forms of calls. As in every analogical reasoning, many potential flaws are looming in the back, and it is important to consider them as much as we can. One way to do so is by setting distinctions among the various epistemic states that characterize our life: differentiating these states may prove useful to better understand how we, as a species, passed from one to the other. Such understanding could help us in better grasping how we have been able to develop the full-fledged capacity for thought and language that characterizes our species. In this chapter I shall consider what philosophers have said with respect to the different epistemic states that can be entertained when facing the world, and then I will provide some idea on how to apply these states for tackling some cognitive problems and issues.

2 The Distinction: Various Proposals

The epistemic state that is center stage for our life is surely that of belief. Belief, from a cognitive point of view, can be considered, together with desire, the state that has to be posited in order to understand, explain and justify our behavior. These two states are those necessary to understand our intentionality, that is, our capacity to represent actual or possible state of affairs. Let me make the case. We see John going toward the fridge and taking a beer there. We understand, explain and justify what he has done by attributing to John the belief that a beer was in the fridge, the desire to have a beer, and a general reasoning of the form: "If an agent desires x and believes it won't get x unless he does y, then the agent should do y", where, in this case, x is the beer and y is the action to go to the fridge. Desire and belief, as we have seen, are to be posited to explain the action by the agent. These states are so posited because they are at the hearth of our thinking in general. Every epistemic state, that is to say, every state that allow us to acquire or entertain some knowledge, tentative as it could be, is epistemic in this sense. So, understanding what are the necessary conceptual capacities that our ancestors had to have in order to develop an articulated thought, those that led to the first elements of human culture as we know them, is a crucial step. In the following we will try to highlight, through a review of the main positions, some of the main themes that are at the root of the distinction between different kinds of epistemic states, as well as analyze what role these distinctions can play in the perspective of a more articulated understanding of belief and desires.

Ronald de Sousa (de Sousa 1971) compared two different approaches to the theme of beliefs: one that links them to action and agents in a broad sense; the

other that connects them primarily to language, at least understood as a form of thought rather than as a mean for communication. In the first case we find ourselves in the realm of descriptions of actions performed starting from the reconstruction of causes or reasons not overtly manifested by the agent, in the other in that of potentially expressible propositional contents. The proposal that de Sousa puts forward therefore foresees two levels: on the one hand we have beliefs, which are characterized as dispositions to act in a certain way, on the other hand we have "beliefs in the full sense" which must instead be considered as either true or false and are defined as acts of assent by de Sousa himself. In particular, according to de Sousa, human beings and systems without language (such as animals and children in pre-linguistic age) share the first level, that of beliefs (as dispositions), which can be evaluated from the point of view of the Bayesian theory of probability. As soon as one considers the intentional states connected to language, understood as a "genuine case of behavior", the second level comes into play: in this case the assent to a certain statement manifests the propensity towards "epistemic lust" which leads to consider the statements either true or false, and not assessable in different degrees. According to this theory, at the level of dispositional beliefs one can believe that *p* with a certain degree *g* and believe that *not-p* with degree *1-g* (in Bayesian theory 1 is certainty), while this is not possible as far as the statements are concerned. Here we enter the second level: only human beings are able to assent to statements that are either completely true or completely false. "Such an act, or such abstraction [...] serves to incorporate p, or shows that p is already included in the set of utterances considered true by X" (de Sousa 1971, 59). Such an inclusion is considered by de Sousa a necessary and sufficient condition for an agent X to give his assent to *p*. An act of assent is therefore an action determined by an epistemic will or the result of a bet on the truth of a proposition, to use two expressions of de Sousa himself. There are two advantages, in de Sousa's opinion, that the distinction between beliefs and acts of assent can offer. First, the language through which an act of assent is expressed makes it possible to specify beliefs, i.e. to make them conceptually more precise and determined. Secondly, by means of the distinction it is possible to explain those phenomena in which one bets against one's best judgement or one's natural inclination to believe a certain thing, highlighting a contrast between beliefs and actions or between various beliefs, as in the so-called pathologies of akrasia and weakness of will. One might think that the distinction proposed by de Sousa is in some ways analogous to that between dispositional and occurrent beliefs, present in contemporary literature at least since Russell. On the basis of this distinction a belief is occurrent if it is active – causally or functionally – in the system at time t, while it is dispositional if the system is in a position to manifest it if the conditions are met.

This parallelism, however, is not defensible. In fact, de Sousa states that we infer which belief to attribute by observing behavior. Therefore, the expression "willingness to act" actually has a heuristic role: it indicates that a given state is available to determine the system's action with a certain probabilistic value, but not that the system would manifest that state only if certain conditions were to occur. A system could manifest such beliefs also in other conditions, and by virtue of the connection with other intentional states. So, de Sousa's dichotomous proposal can be intertwined with the dispositional/occurrent distinction so as to generate four possible different states: we can have beliefs (as actions) both dispositional and occurrent just as we can have acts of assent (as adhesions to the truth of statements) both dispositional and occurrent. The most questionable case could be that of dispositional acts of assent but, in fact, we often rely on the fact that someone will express his or her assent to a certain statement based on the consideration that, for example, in similar conditions he or she has expressed assent to that or equivalent statements. This kind of belief can therefore be considered fully "tacit".

Daniel Dennett (Dennett 1978) has proposed a distinction between different kinds of epistemic states that somehow parallels the one by de Sousa. In his case, beliefs are contrasted with opinions, "linguistically connoted" states (Dennett 1991). Dennett emphasizes that what we have in common with animals is that we are immersed in a world of information, while what differentiates us is our privilege to also have an "immersion" in the world of words.[2] It is in this second world that propositional attitudes and the level of opinions are defined, which distinguishes us from animals and children of pre-linguistic age. According to Dennett, opinions have been stimulated by our epistemic greed and, conforming to de Sousa's position, are considered either true or false, while beliefs are subject to Bayesian-type evaluations. The criterion for the distinction is therefore language.

Another author who has pointed out the importance of adopting a taxonomic division between epistemic states, but with different characters from the previous ones, is Robert Stalnaker (Stalnaker 1984). He distinguished between beliefs, such as functions from possible worlds to values of truth, and "acceptances", wider than beliefs, characterized as propositional attitudes, which include assumptions, postulations, presuppositions, presumptions as

2 See, in particular, Dennett 1987, 156, wherein Dennett stresses also that it is only among humans that we can have secrets, something that animals cannot have. I think this is not strictly true, as the burgeoning literature on deception shows, but it is only by means of language that a secret can be something that has a "trading role": you cannot sell or pass a deception, as you can with a secret.

well as the beliefs themselves. There are, however, differences between beliefs and other states that best fit the notion of acceptance: while beliefs are basically seen, from a pragmatic point of view, as "conditional provisions to act" (Stalnaker 1984, 82), acceptances, which can guide behavior, are qualified by their social dimension, by their more or less active (and therefore not only dispositional) character, by their limited time – one accepts for a certain moment – by their contextual character – one accepts that *p* in a given context and not *p* in another – and because, finally, acceptance can be the result of a methodological decision rather than of a subjective commitment, as in the case of a judge who accepts a certain verdict despite the reluctance to subscribe to it (Stalnaker 1984, 79 – 81).

More focused on the theme of the activity and passivity of epistemic states is the distinction between beliefs and acceptances developed by Jonathan Cohen (Cohen 1992). Initially advanced to account for philosophical reasoning and the way philosophical hypotheses must be controlled,[3] the distinction considers beliefs as passive intuitive states, which grow in us, while acceptances are the result of acts of the will. More specifically, beliefs are seen as "feelings" related to the truth of a given proposition (not necessarily rendered in the form of a sentence). Such feelings may be occurrent or dispositional and are such that the individual is in a certain constant and potential generic state with respect to a given content. To take an example from Cohen himself, during a thunderstorm one never stops believing that it is raining, i. e. one "feels" dispositionally true the proposition "it's raining here and now", even if one does not in fact think that it is raining here and now all the time.[4] As for acceptances, Cohen judges them to be states that come into play when one actively directs behavior, both physical and verbal, where inferences are the verbal behavior Cohen considers. A typical use of acceptances is as premises of reasoning, even though they may be tacit. What matters is that acceptances play a role in the mental and practical life of the individual.

Michael Dummett (Dummett 1988) has developed a distinction between mental states with different order of complexity so to propose a solution to the problem of beliefs in animals. In Dummett's view, humans and animals share proto-thoughts, while thoughts would be the exclusive feature of humans. The articulation of this distinction is based on Frege's analysis of thought (see Dummett 1973). In his antipsychological view Frege intends to clearly distinguish

3 On this respect see Cohen 1986, where some of the themes discussed in Cohen 1992 are anticipated.

4 On the issue of the dispositionality of beliefs, a number of authors have recently developed a number of theories. Most notably, I take the work by Kriegel 2012; Mendelovici 2018; Schwitzgebel 2002 as particular important. I have expressed my view in Gozzano 2019.

thoughts from the activity of producing them. With regard to thoughts, the question of truth could be posed, whereas this makes no sense with regard to the psychological processes of thinking. A thought must therefore, in Frege's opinion, be objective and communicable. But if thoughts are what gives us access to the problem of truth, and if they are expressed in statements, can they also be considered independently of language? In one of his later published writings, Frege argues that the association of a thought with a sentence is not necessary but dependent on human nature. Dummett notes that this thesis appears at odds with the idea that the meaning of a statement can only be grasped as the meaning of an expression and it is precisely in order to make these two statements compatible that he advances the notion of proto-thought. Going back to a passage of Frege, in which he admits that a dog may not so much have the concept of one as to distinguish whether there is only one dog or many to obstacle him, Dummett explores the concept of proto-thought: this is a form of thought that cannot be expressed in language because natural languages are too rich. An example of human proto-thinking is the following: a car driver traveling on a road at rush hour. He will have to be very concentrated, assessing distances, speed, current and potential dangers and so on. Surely he will be immersed in a thought activity that, Dummett continues, does not have the structure of a verbally expressed thought. In Dummett's opinion this is essentially spatial and dynamic thinking, a thinking of exactly the same kind as those animals are capable of. Moreover, a thought of this kind, since it is linked to the spatial conditions of the moment, can only be relative to *hic et nunc*. According to Dummett, therefore, the cognitive activity of animals falls into the category of proto-thoughts, while human cognitive activity falls mainly into the category of thoughts.

A last proposal of distinction is that between beliefs and subdoxastic states made by Stephen Stich (Stich 1978). The criteria on which Stich's distinction is based are the inferential integrability versus the inferential non-integrability of some beliefs, which however may play a role in the proximal causal history of other epistemic states, along with the accessibility to conscious introspection versus inaccessibility. According to Stich, the states that enjoy little inferential integration and whose content is not accessible to consciousness are the subdoxastic states. Beliefs, on the other hand, enjoy both these properties. He proposes three examples of subdoxastic states: grammatical intuitions, judgments on perceptual depth and some aesthetic evaluations. The case of intuitions on the grammaticality of statements is taken from experimental research in psychology. When subjected to tasks of discrimination of grammatically correct versus incorrect statements, subjects are only able to report their judgment but not the way they came to that judgment. They usually simply "feel" whether a certain statement is grammatical or not. Likewise, when compared to Julesz's random point

stereograms,[5] subjects judge that one "stands out from the background" and stands in front of the other but are unable to say how they come to say this. Finally, the aesthetic-perceptual judgments: in that case the subjects are placed in front of two copies of the same photo portraying the same human face. Unbeknownst to them, in one of the two photos the pupils of the portrayed have been artificially dilated. The subjects' preferences are on the photo in which the pupils are dilatated, but they cannot say why. In Stich's opinion, we are faced with states that are devoid of two properties that are usually considered characteristics of beliefs: "The first of these is in fact an aggregate of properties that is resolved with respect to the kind of access we ordinarily have with respect to the content of our beliefs; the second can be characterized as the inferential integration of beliefs" (Stich 1978, 503).

The first property must be identified, according to Stich, with the fact that while we express assent towards a certain belief, we are conscious of having such belief. However, when we judge the grammaticality of a statement, we do something different from analyzing the content of our own belief. One could say that we report our grammatical dispositions. The second property, vice versa, points out that many of our beliefs are the result of inferential processes and are connected with other beliefs and intentional states within a network in which the links are precisely represented by possible inferences. In this sense, beliefs are connected to each other in a network with a high number of paths so that from a given belief we can reach many other different beliefs. This is, according to Stich, the inferential integration of beliefs. The subdoxastic states are therefore largely isolated from the inferential point of view, or integrated in an extremely limited way, so that we can separate them from the states we call beliefs. The idea is therefore that "consciously accessible beliefs are connected in a complicated network of mutual inferential potential connections. Each belief is a potential premise for inferences that lead to a vast network of further beliefs. On the other hand, the inferential contact between subdoxastic states and beliefs is specialized and limited" (Stich 1978, 507). From here, Stich goes so far as to suggest that those who consider perception as a result of an inferential process would not only fail to recognize this important distinction but would end up postulating beliefs which content we cannot access. On the contrary, "once the distinction is recognized, we can assign completely ordinary contents to subdoxastic states without worrying that the subject does not believe the statement that

5 These stereograms are pair of images of random dots that, when viewed with a stereoscope or with the eyes focused on a point in the images, produce a sensation of depth, with objects appearing to be in front of or behind a background level. Bela Julesz, a neuropsychologist, developed the stereograms as a form of "Ciclopean perception". See Julesz 1971.

express the content" (Stich 1978, 517). So far, we have been articulated and compared different positions on the issue of the kind of beliefs. Before arguing in more detail about the plausibility of the different positions, it is useful to report the set of contexts and problems for which the different versions of the distinction have been put forward.

3 Applications of the Distinctions

The various distinctions took step from a number of specific cases and examples. Let's consider them.

The differentiation of beliefs of linguistic systems from those of non-linguistic systems: all the distinctions can be applied to the problem of differentiating the beliefs of non-linguistic systems, animals and children in pre-linguistic age, from those of linguistic systems. Animals will therefore have beliefs (de Sousa, Dennett, Cohen, Stalnaker), proto-thoughts (Dummett) or subdoxastic states (Stich), while human beings are reserved for acts of assent (de Sousa), opinions (Dennett), acceptances (Stalnaker, Cohen), thoughts (Dummett) or beliefs (Stich). In this regard, the distinction can be expressed as follows: there are two kinds of epistemic states. The one shared by linguistic and non-linguistic systems must be identified with the disposition to act if placed in certain contexts or a state whose attribution is justified for the role it plays in predicting and explaining behavior. This state is characterized by some authors for its passivity (Cohen) or inferential isolation (Stich). The state not shared by linguistic and non-linguistic systems is characterized as the manifestation of adherence to a content (de Sousa), to enunciated opinions (Dennett), an inferentially integrated and conscious state (Stich), a context-independent thinking (Dummett), interconnected with other states by means of assumptions, presumptions, etc. (Stalnaker) or active (Cohen). This state is the exclusive domain of linguistic systems.

Cases of persistent illusions: Müller-Lyer's arrows could be catalogued, using the new terms introduced, as illusions in which the subject accepts that the two segments are of the same length while believing them to be of different lengths. In this case the passivity of the beliefs and the activity of the acceptances would be clear: even though we have had previous experiences with the same test, we are led to believe perceptively (to have the "feeling", as Cohen would say) in the different length of the two segments, even if after their measurement, i. e. the assent to an act of acceptance of a certain content, we know that this belief is erroneous.

Cases of akrasia and weakness of will: with this terms we indicate those situations in which one should believe a certain thing based on the evidence avail-

able but does not. Such situations can arise when one is confronted with disconcerting data about which one does not have sufficient means, both cognitively and emotionally, for a calm and clear evaluation. The answer is then to take action against what would be your best judgment. This could also include cases of self-deception, i.e. those cases in which a subject forces himself to believe a certain thing while he has all the evidence for the contrary. According to several authors, we would see a form of disconnection of the agreement between beliefs and acceptances.

This is therefore the state of the art in the distinctions on what we have called epistemic states considered with respect to the issue at stake.[6] Do these distinctions depend on common criteria or not? Can these distinctions be traced back to these criteria? I think the answer is in the first option: all distinctions depend on a common core of criteria. When they deviate from them, they face problems and difficulties. I shall say at the outset that I believe that one of the common denominators of the various distinctions or, alternatively, one of the most reliable criteria on which to base a possible distinction between kinds of epistemic or epistemic states, is the inferential integrability of these states. This common root is explicit in Stich, more nuanced in de Sousa, Dennett, Stalnaker and Dummett, while Cohen is the only one that denies it. In what follow, I shall consider how inferential integrability is the source for all other distinctions.

4 The Presence of Language as a Criterion

Dennett proposed to consider the presence of language as a priority criterion for the distinction between intentional states. In his version, presented in several essays (Dennett 1978; Dennett 1981; Dennett 1991; Dennett 1994), he states that opinions can be considered linguistically connoted states, whereas the term "belief" should refer to those states that can be explicatively identified as guides for the behavior of some systems without language, such as children and certain animals. However, the question is whether all and only linguistically connoted states are opinions and whether all others are beliefs or not. Secondly, in what sense are some human states opinions? Is linguistic expression necessary to judge a state as opinion, or is the presence of behaviors of such complexity as to presuppose linguistic competence sufficient? Let us therefore see what the an-

6 I haven't considered problems related to degrees of beliefs, credence, and other epistemological issues. For my best developed assessment see Gozzano 1997.

swers of this author are. Dennett argues that language crucially divides kinds of states: through it we can specify more clearly what we think by articulating complex concepts, and this allows us to apply the notion of truth, which is not possible with regard to beliefs, which instead must be evaluated by degrees of probability. Conceptual precision and evaluation of truth are therefore the two criteria that make up the distinction. I want to suggest that the evaluative aspect is not defensible and that the conceptual or linguistic aspect, so placed, is not sufficiently clear. Let us start with the evaluative issues. In order to distinguish the domain of beliefs from that of acts of assent, or opinions, de Sousa and Dennett propose to consider beliefs in terms of Bayesian degrees, to reserve bivalence to linguistic states. Ramsey reintroduced the possibility of assessing in degrees the strength with which one has a certain belief. He also envisaged the creation of a method for measuring beliefs, to make sense of the notion of the degree of belief. How could such measurements be made? The first step, Ramsey suggests, is to imagine an arbitrary scale, like the one used to define the hardness of crystals. The different degrees of belief should not be different levels of "feeling": the degree of a belief should be a causal property, which "we can vaguely express as the extent with which we are prepared to act according to it" (Ramsey 1931, 169). So, the criterion for measuring beliefs is their role as the basis for possible actions, and the classic method for assessing their strength is to determine what kind of bet we would be willing to take to defend a certain belief. In this way the strength of a belief can be quantified in terms of mathematical expectation: "if *p* is a proposition about which one is doubtful, any other reason, for or against it, which, in the judgment of the subject, is considered necessary and sufficient for the decision about *p*, enters the calculation multiplied by the same fraction, which is called the 'degree of his belief in p'. In this way we define the degree of a belief so that it presupposes the use of the mathematical notion of 'expectation'" (Ramsey 1931, 174). For example, Ramsey imagines that he is at a crossroads, with no idea which of the two roads to choose even though he knows that one of them is the right one.[7] Half a mile away, in the middle of a field, he sees a man. The decision to go and ask him for the road depends on the inconvenience of crossing the field compared to the possibility of taking the wrong road. Or, having a vague idea of what the right road is, the distance he will be willing to face will depend on his degree of confidence in the belief about the road to take. Without going into the merits of this proposal, it seems to me that de Sousa and Dennett's idea that non-linguistic beliefs should be

7 This reminds of Crisippus' reasoning concerning the abilities of a dog to infer the disjunctive syllogism as in: one can walks either left or right, but I can't walk right, so, I can walk left.

evaluated in subjective terms, while linguistic opinions should be treated strictly in accordance with the principle of bivalence, encounters some difficulties. Let us consider the following case. Suppose Emilia shows Eugenio a black box with a hole in the middle and tells him: "put your hand in here and I promise no scorpion will sting you". What belief will Eugenio form? It is plausible to assume that he will end up believing, with a certain degree g, that there is no scorpion in the box, because he trusts what Emilia promises. However, he may also believe, with grade 1-g, that there is a scorpion in the box, but he will not sting it. As is clear, even in the case of linguistic statements, or which presuppose linguistic structures for comprehension, it is very useful to carry out treatment by degrees, for example to express cases of doubt or suspicion. Of course, it is not only cases of doubt and suspicion that are suitable for this treatment. In general, everything that has to do with conditions of uncertainty falls within this area, and such conditions are continually present in linguistic life (see Tversky/Kanhemann 1974; Johnson-Laird/Wason 1977). We have uncertainties within language, ambiguities, and epistemic doubts and skepticism, as well as emotional uncertainties, suspicion or distrust, and strategic uncertainties, circumspection. This treatment cannot therefore be restricted to pre-linguistic beliefs alone, let alone be used as a criterion on which to base the distinction. The boundary between a linguistic opinion and a non-linguistic belief seems much more blurred than Dennett, and de Sousa before him, presupposes. Let us now consider the role that Dennett assigns to language in epistemic contexts. According to Dennett, the role of language should be to increase our conceptual and categorical accuracy and complexity, which is reflected in the difference between opinions as opposed to beliefs. It is then possible to establish that statements and expressions that, for example, refer to abstract, counterfactual or possible events are certainly part of the domain of opinions, while behaviors guided by memories, perceptual events and simple choices will be considered as guided by beliefs. Opinions are therefore reflected in sentences such as "today is Thursday", "if we moved further away we would have a better view", while beliefs guide the search for the keys of the house where we remember to have left them (behavior guided by memories), walking towards our car after having seen it in the parking lot (perceptive event) or attempts to try one or the other of two keys when we have a bunch that is not ours (options). But even here we can give complex intermediate cases, and it is on these that the theory must be checked. Here is a situation where these difficulties emerge clearly. Let's suppose that our friend Sergio, his son of about three years, the dog Fido, and a chimpanzee trained in cognitive experiments, are placed in front of the same scene: the throwing of a ball into a bush. The empirical prediction we would be willing to make is that, if the task is to look for the ball, all four

subjects will look for the ball inside the bush because guided by the belief that the ball is in the bush. The problem is, do they all actually have the same belief? Is Sergio's belief that "the ball is in the bush" identical to the one we could attribute to his son, the dog or the chimpanzee? When all four systems start looking for the ball in the bush, Sergio's belief could have many traits in common with his son and the chimpanzee, but for other traits it could be different. What Sergio and the other two systems have in common is, for example, the belief that a ball of a certain color, say red, has ended up in the bush, which differs from what the dog, who is blind to colors, might believe. In fact, if we were to find a blue ball in the bush, a reaction of surprise by the first three systems would be plausible, but none by the last one which, vice versa, could be sensitive to the fact that it does not smell the same. On the contrary, if a red ball was found but with a different smell, the only one that could show surprise would be the dog, and maybe the chimpanzee. However, such differences would still be at the level of beliefs and not at the level of opinions. If that very ball were found in the bush, we would have no way to differentiate, from a strictly behavioral point of view, these systems except that Sergio can tell us that his belief has been confirmed, expressing his opinion, which, however, would not tell us anything new about his epistemic states besides the fact, that we already know, that it is a system endowed with language. Now, the trick of the disappearance of the ball is very useful precisely because it serves to highlight the role of beliefs in the network of the other intentional states of the system. In fact, if the belief that the ball is in the bush turns out to be false, the reactions on behalf of the subject can give a measure of the way in which the given belief is connected to, or dependent on, other beliefs of the system and, eventually, to the opinions and to which of them. Fathoming the bush carefully, looking for the ball in the air, analyzing the pitcher of the ball, human or mechanical as it may be, are just as many indications of what a given system believes a ball to be. If someone, given the disappearance of the ball, started to open the trunk of the car previously closed, or began to dig in the garden, would highlight a strange concept of the ball. An unfulfilled expectation is therefore resolved in an expression of surprise whose consequences give indications on the degree of integration and dependence with the other beliefs with which the system can retain a certain content ("the ball is in the bush"). Integration and dependence can be evaluated in relation to the number and type of research that the system would be able to carry out to solve that problem or with the readiness with which it is willing to infer another belief ("there is a trick"). Sergio will not only perform non-verbal research behaviors, but he will be able to question the eventual pitcher or exhibit behaviors of such complexity that no system without language can match. Moreover, he could confirm our hypothesis and express his own through a simple verbal

interaction. But from a conceptual point of view, what is relevant is his ability to make articulated inferences, to connect various information among them, to treat them in abstract terms and so on. This complex structuring of epistemic states within a network is incredibly enhanced by language, but it as such does not create the network, but expands and enriches it. It represents an exponential increase in capacity, but the interrelationships between epistemic states can also occur independently of it. Dennett is, however, aware that he cannot defend a clear-cut distinction between beliefs and opinions. He weakens this distinction by stating that there is usually a rational agreement between beliefs and opinions. This translates into the idea that there must be some form of integration between such states. But the integration that is compatible with Dennett's model is the inferential integration envisaged by Stich, an integration that is very rich in linguistic expressions, opinions, and limited in pre-linguistic states, beliefs. Also Dennett's model, therefore, can be traced back to Stich's criteria. Where it has parted company from them, as in the case of the Bayesian assessment of bivalence, it is implausible. At the end of the analysis of Dennett's proposal, we can say that his criteria can be reduced, or should be replaced, by those put forward by Stich. At the same time, other aspects have emerged, and they too must be evaluated. It is therefore necessary to analyze what kind of relationships are established between the different forms of content.

5 Forms of Content and Kinds of Epistemic States

From the discussion of the different proposals to distinguish kinds of epistemic states we have concluded that Stich's criteria, inferential integration and accessibility to consciousness, constitute the cornerstones on which the distinction itself can be based. In previous analyses of intentional states (Gozzano 1997; Gozzano 2008) we noted that the epistemic competence of intentional systems can be classified along three discriminatory capacities. Each capacity is based on a specific form of content: non-conceptual content, for perceptual discrimination, semi-conceptual content, for discrimination that allows recognition, and conceptual content, for conceptual discrimination. Few words on these contents are in order. We suggest that a content is non-conceptual if it can occur only in the presence of its stimulus and cannot occur for recombination with other contents. A content is semi-conceptual if it can occur for recombination and inferences in a limited number of cases, where these are limited by the need of spe-

cific stimuli or specific contents. A content is conceptual if it can occur freely for any kind of recombination and inference. Let me consider these contents in turn.

Suppose a system manifests an epistemic state that we can describe as "there is the alfa male there" or "there is a red hue there". How can such content relate to other epistemic states in the system? An inference based on the relation characterized by transitivity can be described as follows. Imagine something like a group of non-linguistic social animals. In this situation we have an animal, S, that observe the alfa male arriving. We may then attribute to S the belief that the alfa male has arrived; S has also a memory that associates the arrival of the alfa male with his stepping back; therefore, S beliefs that he should step back. These states are non-conceptual because for *S* to believe that the alfa male has arrived is for S to see him, and we may further suppose that the memory of his stepping back upon the alfa male arrival is elicited only in very specific cases. These epistemic states, then, are non-conceptual in character. What kind of relationship can be established between states with non-conceptual contents? For instance, we may imagine that transitivity could be one. First, the life of different species of animals living in groups is regulated by strict hierarchical relationships, and transitivity characterize the hierarchical relationships that apply in such social groups. So, simple animals able to manage epistemic states with purely non-conceptual content, can nevertheless manage transitivity.

Semi-conceptual contents allow for some combinations and can represent transitivity and reflexivity. We may include in this category the projection of spatial coordinates in hypothetical alternative points of origin so to recognize a location or a scene from a different angle, as well as the identification of the space-time continuity of material objects that may change some of their features. For instance, this type of content applies to the phenomenon of perceptual constancy, which dominates many beliefs, as when an object looks elliptical from an angle and circular from another one. For transitivity, these states may represent them along the following line: if object (or animal) O has moved from here to there and then has moved from there to over there, then O has moved from here to over there. So, having epistemic states with semi-conceptual contents allow systems to recognize the same individual through time or the same location or event from different points of view in the space. The relations that are at stake between these semi-conceptual contents and those of conceptual content must be characterized by reflexive and transitive properties.

Non-conceptual and semi-conceptual contents can be related to each other, and this can be shown with examples from classical conditioning. An animal has many unconditioned responses, as is salivation in the presence of food for dogs. When a neutral stimulus (a ringing bell) is associated with the stimulus of the unconditioned responses, a conditional response is obtained. In this case, the

semi-conceptual content can be described as "if the bell rings, food will be presented". If we have attributed to the system the content "if the bell rings, food will be presented" and the bell rings, we will attribute to the system the content that food will be presented. It is not difficult to recognize the conclusion of a *modus ponens* in this prediction. This inference is considered correct by the members of our species and appears, at least from a behavioral point of view, to be shared also by members of different species, for example dogs or mice, who are trainable through such forms of conditioning. It should, however, be stressed that this inference in its general validity is still outside the domain of the epistemic activity of many species. In order to consider whether an inference is part of the epistemic activity of a system, in fact, it must be the result of the combination, according to rules, of epistemic states, as beliefs or desires, and not just of their contents taken as something that cannot be combined, as is the case with specific stimuli associated via a form of conditioning. So, what I am suggesting is that many animals can associate epistemic states with non-conceptual or semi-conceptual content, but they do not constitute cases of inference. For, an inference is characterized not by simple association, but by logical relations between epistemic states, as clearly described by Evans with his *Generality Constraint:* "if a subject can be credited with the thought that a is F, then he must have the conceptual resources for entertaining the thought that a is G, for every property of being G of which he has conception" (Evans 1982, 104). Clearly, an inference could be right or wrong, but the way in which its elements are related is not a simple association.

Can epistemic states with non-conceptual or semi-conceptual content be included in inferences? They can only if the inferences are drawn via states with conceptual content. An example may help. Suppose you want to inform not to eat some rotten food. You may rely on the distinctive bad smell of rotten food. Such smell is definitively non-conceptual, as only via its direct perception one may say whether the food is rotten or not. However, such perceptual state can constitute an element in an inference of the form: "if the food stinks like *that* (perceptual presentation) do not eat it". Then, if the subject perceives the stinky smell, she can avoid eating the food by applying the entailment described and concluding via modus ponens not to eat it. The non-conceptual content, then, is part of an inference thanks to it being embedded with conceptual contents.

What next?

Looking at the origin of human thought for searching the basic structures of our capacity to tell stories, creating cultural seeds and the like may seem a too far-

fetched enterprise. However, it is a necessary step, for the seeds of our cognitive capacities are in these fundamental cognitive structures. We may not be the only species that has developed some of these capacities, but we are definitively the only one that has them in flying colors. So, clarifying these capacities is clarifying a fundamental element of our being human.

Acknowledgements

I express my gratitude to Laura Lulli, for having convinced me that philosophy of mind is not, after all, that far from classical studies.

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Paolo Pecere

Words, Gestures, Brains and Caves. Remarks on the Material Bases of Language

Abstract: In this paper, I reconsider a number of crucial moments of modern and contemporary investigations of language, mind and brain, focusing on the growing understanding of the material bases of language. I first question the view that the notion of language as grounded on the body and social interaction is a result of Darwinism and point out that such view is rooted in modern philosophy, from Descartes to the Enlightenment. I also argue that, even in post-Darwinian thought, the critique of solipsism and the idea that linguistic meaning requires the whole body were developed independently of Darwinism. I point out that the neural correlates of linguistic comprehension, linguistic production and writing have been long separated in neuroscience and neuropsychology. On this background, in the concluding section, I examine the problem of the separation and interdependence of orality and writing.

Keywords: Language; body; mind; brain; behaviour; narrative.

1 Introduction

In the last volume of *In Search of Lost Time*, Marcel Proust wrote:

> I realised that the essential book, the one true book, is one that the great writer does not need to invent, in the current sense of the word, since it already exists in every one of us – he has only to translate it. The task and the duty of a writer are those of a translator (Proust 2018, 538).

The idea that structured thoughts exist in the mind before linguistic expression, as a kind of 'language of thought', has an ancient and honored tradition in philosophy, so much so that Proust here took for granted that even his book – one of the monumental masterworks of Western Literature – could be available in his mind before being 'translated' into its written form.

Indeed, phenomena such as the "tip of the tongue" experience and visual imagination strongly suggest that thought cannot be reduced to language. Nevertheless, Chomsky's hypothesis of a "universal grammar" and Fodor's hypothesis a structured "language of thought" are controversial in today's cognitive sciences

 https://doi.org/10.1515/9783110751987-003

(Corballis 2017, 57 ff.). A major point of disagreement concerns the prospects of an evolutionary theory of language. Chomsky (1988) denied that universal grammar could be conceived as a product of gradual evolution. Chomsky's position did not entail any critique of Darwinism in itself, it rather stemmed from the methodological argument that the principles of human language can be derived from the study of language as a formal combination of signs rather than a tool of communication that evolved by natural selection in a natural environment. A similar methodological hiatus was defended by Fodor, whose "language of thought" hypothesis draws on the study of the mind without addressing the environmental context. Many scholars disagree with this philosophical perspective. Ferretti and Adornetti highlight that these views converge with the philosophy of Descartes for their notion of language as a mark of the "human difference" with respect to other animals and for their methodological "solipsism". They argue that "the specter of Descartes [...] continues to hover in the models still prevalent in cognitive science", while "to propose a genuinely naturalistic perspective, the models of language inspired by the Cartesian tradition must give way to those tied to the Darwinian perspective" (Ferretti/Adornetti 2014, 29).

This controversy suggests the importance of philosophical-scientific frameworks for the study of linguistic expression. On the one hand, the "Cartesian" perspective is associated to the priority of mind over matter and to the representation of the individual speaker as isolated from the context of social interaction. On the other hand, the "Darwinian" perspective is associated to the picture of thought as a natural process and to the inseparability of linguistic praxis from the environment. In turn, this alternative is related the study of the material conditions of language, and literary expression in particular, in neurolinguistics and neuroaesthetics. Hence the analysis of the brain correlates of linguistic understanding and production, including writing, as well as the consideration of the body in its environmental and social context as a condition of linguistic interaction, may appear as the consequence of a rejection of Cartesianism and the adoption of a Darwinian perspective.

However, this polarization is grounded on an oversimplified picture of the philosophical and scientific roots of contemporary investigations on brain and language. In this paper, I will reconsider a number of crucial moments of this story, focusing on the growing understanding of the material bases of language in modern philosophy and science. In par. 2, I will argue that Descartes' philosophy could not be reduced to the sharp separation of mind and body that I have outlined above, and indeed Descartes introduced the hypothesis that the whole body is engaged in the production of affective states and the learning of language. In par. 3, I will show that the view of language as grounded on the body and social interaction was considerably developed in modern philosophy

long before Darwinism. In par. 4, I will point out that, even in post-Darwinian philosophy, the critique of "solipsism" and the conception that the study of linguistic meaning requires the whole body were developed independently of Darwinism. In par. 5, I will turn to neuroscience and neuropsychology, showing that the neural correlates of linguistic comprehension, linguistic production and writing have been long separated, and that, at the same time, the plasticity and interconnection of different functions in the brain network has been long debated. Against this background, in the concluding section, I examine the problem of the separation and interdependence of orality and writing and I sketch a conjecture on the material bases of language in the context of prehistoric art.

2 Thought, Language and Body: the Cartesian Background

Descartes, as is well known, has been considered as a controversial pioneer of philosophy of mind and cognitive sciences in general. On the one hand, because of his distinction of the "thinking substance" from the body, Descartes has been considered as the arch-dualist and the enemy of physicalism. According to Paul Churchland (Churchland 1984, 8), "as Descartes saw it, the real you is not your material body, but rather a nonspatial thinking substance, an individual unit of mind-stuff quite distinct from your material body." Antonio Damasio famously described "Descartes' error", that is "the abyssal *separation* between body and mind" (Damasio 1994, 249 – 250, my italics), as the fundamental obstacle to a neuroscientific theory of self and emotions. Descartes' thesis that his own mechanistic model was limited and could not explain the conscious mind has been also valued by a number of contemporary philosophers of mind following the thesis that consciousness requires an extension of scientific models beyond standard mechanism, such as John Searle and David Chalmers. On the other hand, Descartes – since the "Treatise on Man" (*L'homme*) – was also one of the first and foremost mechanist philosophers and the author of the model of man as a "machine", whose parts "imitate all those functions we have which can be imagined to proceed from matter and to depend solely on the disposition of our organs" (AT XI, 120) and thus allows to explain a large number of cognitive and motor functions. The prominent neuroscientist Jean-Pierre Changeux attributed to him "a first connectionist model of the functional architecture of the nervous system" (Changeux/Ricoeur 1996, 47 ff.). Neuroscientific reductionism, as it were, resulted from a Cartesian program that renounced its dualistic side and the limitation of its mechanistic models. Hilary Putnam and others notably denounced

the "Cartesian materialism" of contemporary philosophy of mind: while Descartes had identified the human being with a separate incorporeal soul, modern neurophilosophers reformulated this mistake in their own terms, trying to identify the conscious mind with the brain, whence the reductive conclusion "you are your brain" (Putnam 2012, 589).

Concerning human language, Patricia Churchland (Churchland 1986, 318) argued that Descartes, "though he was a keen mechanist [...] simply could not imagine how a mechanical device could be designed so as to follow rules of reasoning and to use language creatively" and therefore he concluded that "reasoning betokens a nonphysical substance". His scientific imagination was based on the model of "clockwork machines and fountains" and lost its plausibility in the light of "modern symbol-manipulating machines". In this perspective, the case can be seen as an admonition to contemporary critics of physicalism, whose arguments may sound "new and clever", but whose "motivating intuitions are discernibly Cartesian". Today we should just drop Descartes' dualism and turn to materialism.

Let me consider all these claims in historical perspective. As a matter of fact, Descartes did not defend a "separation" of mind and body, he rather claimed that mind and body are "distinct" and at the same time united.[1] Against this metaphysical background, Descartes introduced his account of language, which is based on the interplay of body and mind, and provided important premises of successive investigations of language and communication. First, the notion that human behavior can be explained by means of stimuli and partially automatic responses. This theory famously entailed the postulate – which has been later criticized with plenty of evidence and arguments – that non-human animals act without any kind of consciousness. Nevertheless, Descartes' dualist model of human behavior, based on the interplay of mechanical processes and the free activity of the soul rolling the pineal gland and, thereby, moving animal spirits in the nerves, still deserves reconsideration for its complexity.[2]

Concerning language, indeed, Descartes accepted the view that ideas exist in a non-physical soul, and yet admitted of "material ideas" as seats of representations in the brain. In parr. 44–45 of *Les passions de l'âme* (1645) he also connected the soul-brain interaction with the formation of habits and hence to language understanding, learning and production.

> When we speak, we think only of the meaning of what we want to say, and this makes us move our tongue and lips much more readily and effectively than if we thought of moving

1 On this controversy see Pecere 2020a (*Introduction*; *Chapter* 1).

2 See Sutton 1998, in particular 81.

> them in all the ways required for uttering the same words. For the habits acquired in learning to speak have made us join the action of the soul (which, by means of the gland, can move the tongue and lips) with the meaning of the word which follow upon the same movements, rather than with the movements themselves (AT XI, 362).[3]

The separation of meaning, as a mental property, and brain processes had been introduced in the *Discours de la méthode* (1637), in a passage that deserves to be analyzed for our purposes. Descartes argues that machines conceived as reproductions of humans would be unable to reproduce the full capacity of human language, which therefore requires the introduction of the immaterial soul.

> They could never use words, or put together other signs, as we do in order to declare our thoughts to others. For we can certainly conceive of a machine so constructed that it utters words, and even utters words which correspond to bodily actions causing change in its organs (e. g. if you touch it in one spot it asks what you want of it, if you touch it in another it cries out that you are hurting it, and so on). But it is not conceivable that such a machine should produce different arrangements of words so as to give an appropriately meaningful answer to whatever is said in its presence, as the dullest of men can do.

The reason for this inconceivability lies in the difference between the flexibility of reason and the fixedness of organic mechanisms, for "whereas reason is a universal instrument which can be used in all kinds of situations, these organs need some particular disposition of their organs for each particular action; hence it is for all practical purposes impossible for a machine to have enough different organs to make it act in all the contingencies of life in a way which our reason makes us act" (AT VI, 56 – 57). In other words, the physical explanation of language is inconceivable because of the alleged impossibility of reducing the innumerable "circumstances of life" to prefixed reaction mechanisms in the brain. The weakness of this argument arguably depends not merely on the lack of more refined mechanistic models – as argued by Patricia Churchland –, but also on the bracketing off of environmental and social interaction from linguistic activity, which is thus reduced to the triggering of mechanisms inside the body.

Descartes' philosophical notion of reason as the power of an immaterial soul reflected his philosophical project of breaking with the passivity of learning, hence Descartes wrote that we should read books while taking care of the danger that "traces of their errors will infect us and cling to us against our will and de-

3 This view was introduced in order to show that we can control our passions, for these – similar to meanings – can be indeed "aroused or suppressed by the action of our will, but only indirectly through the representation of things which are usually joined with the passions we wish to have and opposed to the passions we wish to reject" (AT XI, 362 – 363).

spite our precautions" and, before reading a book, he "would try and see whether perhaps I could achieve a similar result by means of a certain innate discernment" (AT X, 366, 403). However, philosophers soon argued that flexibility of language and critical insight might be explained on material basis, if only one did not reduce the latter to prefixed mechanisms in machines made of inert and passive matter.

3 Naturalizing Language in the Enlightenment: Body, Gesture, Word

The diffusion of empiricist and materialist thought in the Enlightenment stimulated a widespread investigation of the material bases of language, which contrasted the Cartesian conception of meaning as an idea represented by the immaterial soul. Both George Berkeley and Étienne de Condillac remarked that Locke's *Essay on Human Understanding*, however important for its empiricist perspective, failed to recognize the limits of the Cartesian discourse on the precedence of mind over language and thus introduced the analysis of ideas (in books 1–2) before the account of language (book 3).[4] This was all the more remarkable since Locke himself was undermining Descartes' view, as he denied the existence of innate ideas (in book 1) and pointed out that children usually learn words concerning ideas they still do not grasp (Locke 1975, 3.5.15; 3.9.9). These remarks suggested that linguistic communication had to be understood rather as a precondition of silent thought and stimulated a number of hypotheses on the origin of language, conceived as the result of physical interaction by means of gestures and inarticulate sounds. Materialists, like Denis Diderot, concluded that the brain, rather than the soul, is the source and support of meanings. I will shortly address both topics of investigation – origins of language and brain localization – for, as we will see, 18th-century works were the direct sources of crucial hypotheses in contemporary sciences of language.

Condillac's seminal discussion of the origins of language takes place in the *Essai sur l'origine des connaissances humaines* (1746). Condillac imagines the case of two children living after the deluge. As long as they were isolated from each other, their survival required perception and memory, but did not entail the development of lasting memories and imagination. This changed when they lived together:

4 See Aarsleff 2001, xvi.

> When they lived together they had occasion for greater exercise of these first operations, because their mutual discourse made them connect the cries of each passion to the perceptions of which they were the natural signs. They usually accompanied the cries with some movement, gesture, or action that made the expression more striking [...]. The frequent repetition of the same circumstances could not fail, however, to make it habitual for them to connect the cries of the passions and the different motions of the body to the perceptions which they expressed in a manner so striking to the senses. The more familiar they became with the signs, the more readily they were able to call them to mind at will (Condillac 2001, II, parr. 2–3, 114–115).

On this account, cries and gestures precede articulated language as "natural signs", and establish the condition of the development of memory and the use of artificial signs.

> The cries of the passions contributed to the development of the operations of the mind by naturally originating the language of action, a language which in its early stages, conforming to the level of this couple's limited intelligence, consisted of mere contortions and agitated bodily movements [...]. Nevertheless, when they had acquired the habit of connecting some ideas to arbitrary signs, the natural cries served as a model for them to make a new language (Condillac 2001, II, parr. 5–6, 115–116).

On the whole, Condillac's perspective reflected his view that human thoughts – including judgment, desire, passions – are nothing but "transformed sensations". While he also recognized an immaterial soul as a condition of consciousness, Condillac insisted that sensations are strictly bound to nervous processes: "The perceptions of the mind have their physical cause in the shock to the fibres of the brain" (Condillac 2001, I, par. 24, 30).

Condillac's problem of connecting sensations and body was shared by Pierre Louis Maupertuis and Denis Diderot, who both admitted the hypothesis of matter as originally endowed with sensibility (Dunham 2019). In Diderot's *Éléments de physiologie* (1769), sensation was a "quality of matter" and the brain turned out to be not merely a physical support for memory and a condition for physical operations of the body; it was rather conceived as a sensitive organ. This idea was significatively expressed by the metaphor of a "book which reads itself", which entailed the thesis of the precedence of understanding on expression.

> In order to explain the mechanism of memory we have to treat the soft substance of the brain as a mass of sensitive and living wax, which can take on all sorts of shapes, losing none of those it received, and ceaselessly receiving new ones which it retains. There is the book. But where is the reader? The reader is the book itself. For it is a sensing, living, speaking book, which communicates by means of sounds and gestures the order of its sensations; and how does it read itself? By sensing what it is, and displaying it by means of sounds (Diderot 1975-, 470. See Wolfe 2014).

This theory may appear to assert, on a new "vital materialist" ground, the precedence of self-perception on communication.[5] However, in Diderot, the very fact that the brain itself had to read its own traces suggests – contrary to Descartes – that the act of understanding is not an immediate intuition of the mind and is rather a mediated process, which can be hardly separated from the intersubjective context of communication. Be that as it may, the latter view gained ground in 20th century philosophy, establishing the ground for a revival of naturalistic theories of the origin of language.

4 From Private Language to Social Interaction

A view of language as an intersubjective praxis rather than an expression of preconceived thoughts was famously advocated by Ludwig Wittgenstein in the *Philosophical Investigations* (1953), leaving a lasting legacy in contemporary philosophy of language and neuroscience. Taking the cue from a purely ostensive understanding of language, Wittgenstein insisted on the "countless different kinds of use of what we call "symbols", "words", "sentences", and introduced the notion of "language-game", which was "meant to bring into prominence the fact that the *speaking* of language is part of an activity, or of a form of life" (Wittgenstein 1967a, par. 23, 11). The concept of "form of life" designated all the shared characteristics – including physical ones – that were presupposed for the mutual understanding in linguistic communication. In this perspective, Wittgenstein pointed out that "commanding, questioning, recounting, chatting, are as much a part of our natural history as walking, eating, drinking, playing" (par. 25, 12). The analogy between language and games allowed to account for the evolution and the innovation of linguistic rules, for "is there not also the case where we play and make up the rules as we go along? And there is even one where we alter them as we go along" (par. 83, 39). The whole conception introduced Wittgenstein's celebrated argument against private language, the inner designation of feelings and thoughts conceived as independent from linguistic interaction, as it had been implicitly in a long philosophical tradition – e. g. in Descartes.

5 Similarly Herder, in the *Abhandlung über den Ursprung der Sprache* (1777), would claim that an intrinsic "reflexivity" (*Besonnenheit*) is a condition of the understanding of the natural "affective language" which gives "voice to sensation" (the latter, in turn, is a condition of rational thought) (see Herder 1986).

This argument had the important philosophical consequence of denying that mental states can be conceived and defined abstracting from behavior and hence from the body:

> Only of what behaves like a human being can one say that it *has* pains. For one has to say it of a body, or, if you like of a soul which some body *has* (Wittgenstein 1967a, par. 283, 97–98).[6]

This perspective was apt to include modern naturalistic theories concerning the origin of language, including their intersubjective setting. In *Zettel*, Wittgenstein devotes a passage to the learning of language in children and concludes:

> Being sure that someone is in pain, doubting whether he is, and so on, are so many natural, instinctive, kinds of behaviour towards other human beings, and our language is merely an auxiliary to, and further extension of, this reaction. Our language-game is an extension of primitive behaviour. (For our *language-game* is behaviour.) (Instinct). (Wittgenstein 1967b, par. 545, 96e).

Wittgenstein's conception of language and critique of pure inner thought has been reprised by Daniel Dennett. In *Consciousness Explained* (1991), Dennett comments on the traditional notion of inner language as a condition of articulated thought, quoting a statement by Hughling Jackson (1915): "We speak, not only to tell others what we think, but to tell ourselves what we think". Hughling Jackson argued that thought is originally linguistic, but Dennett – elaborating on Wittgenstein – also wants to replace the very idea that an internal "central meaner" understands language before the acts of communication and argues that the very formation of meanings is inseparable from linguistic interaction as a production of brain activity. Dennett claims that the language of *Homo sapiens* originally resembled communication among primates, with communicative acts that do not entail the interpretation of the intention of the utterer, but rather served to a mutual orientation in practical situation. Hence, "request" utterances might elicit "helpful" utterances in the context of a project, e. g. finding food. On Dennett's thought experiment, this social practice eventually (and accidentally) led to the "invention" of inner language by "autostimulation".

> Then one day (on this rational reconstruction), one of these hominids 'mistakenly' asked for help when there was no helpful audience within earshot – except itself! When it heard its own request, the stimulation provoked just the sort of other-helping utterance pro-

6 On this thesis and its Aristotelian roots see Pecere 2020a, 137–138.

> duction that the request from another would have caused. And to the creature's delight, it found that it had just provoked itself into answering its own question (Dennett 1991, 195).

The elicitation of reactions thus prompts the evolution of more and more refined forms of language. Be that as it may, Dennett's speculation is an example of naturalistic views, focused on the precedence of sounds or gestures on articulated words and thoughts, that have been reprised by many contemporary linguists, merging the legacy of Wittgenstein to the investigation of philosophers of the Enlightenment on the origins of language. However, a major breakthrough of empirical research has been the evidence in support of a gestural, rather than vocal, origin of language. Primatological evidence is one of the sources of this theory: while the production of sounds in primates is mostly reflex-like, they voluntarily use facial expressions, hand gestures and bodily postures with flexible meanings in different contexts (see e. g. Tomasello 2008, Arbib/Liebal/Pika 2008). It is an irony that this very kind of evidence, which had been first invoked by Chomsky and others in support of the view of the difference of human language, has served to dismiss the latter's views in the light of gradualist theories in the spirit of 18th century hypotheses by Condillac, Rousseau and others.

Michael Corballis, one of the major advocates of these views, has explicitly mentioned Condillac's theory on the priority of gestures on articulated sounds as a seminal account and indeed he subscribes to the whole conjecture on the transition from gesture to speech. Corballis examines Condillac's story and how the latter:

> goes on to explain how articulated sounds came to be associated with gestures, but 'the organ of speech was so inflexible that it could not articulate any other than a few simple sounds.' Eventually, though, the capacity to vocalize increased and 'appeared as convenient as the mode of speaking by action; they were both indiscriminately used; till at length articulate sounds became so easy, that they absolutely prevailed.' Actually that says it all, and this chapter could probably stop right here (Corballis 2017, 124).

The mentioned chapter is titled "Hands on to Language" and is precisely devoted to the discussion of the gestural origins of language. It is remarkable that, although Corballis attempts an evolutionary theory of language, he points out that Darwin himself still believed to the alternative theory: "I cannot doubt – Darwin wrote – that language owes its origins to the imitation and modification

of various natural sounds, and man's own distinctive cries, aided by signs and gestures."[7]

This turn in post-Darwinian theories of the origin of language has been crucially supported by neurological evidence. To this we have to turn now, in order to focus on the problem of how different expressive functions and organs are connected or disconnected.

5 Neural Correlates

The investigation of the neural correlates of mental faculties made groundbreaking progresses in the 19th century, leading to experimentally grounded hypotheses on the structures and physiological processes that accompanied cognitive and motor activities (Clarcke/Jacyna 1987, Hagner 2008). These advances in anatomy and physiology supported materialist views: Magendie (1816, I, 170) regarded intellectual processes as "the result of brain action" and urged "not in any measure to distinguish them from other phenomena which depend on organic action". Localization hypotheses were often conjectural and could even include uncontrolled speculations (such as those of Franz Joseph Gall's phrenology), thus raising the opposition of those (notably Pierre Flourens) who advocated the Cartesian thesis that the mind is a unity and cannot be articulated into separated faculties and respective brain correlates. The discovery of brain correlates of various capacities often derived from clinical evidence of injured or impaired brains, an example being the localization of "language areas". As is well known, these included the Broca area for language production and the Wernicke area for the comprehension of written and spoken language. Damage to these areas entailed different kinds of aphasia. The discovery and determination of these areas, which was subsequently refined by means of fMRI and similar techniques, suggested that language not only depends on brain processes but has to be analyzed into different and functionally disconnected capacities, whether production and comprehension, written and spoken language are involved.

Subsequent investigations have shown that neural plasticity allows the realization of functions in different areas of the brain, thus suggesting that the opposition between localized and global functioning of the mind has to be blurred. Nevertheless, neuroscientific investigations have proved an articulation of semantic functions and their respective brain correlates that has been brought to bear on traditional issues, including hypotheses on the gestural origins of lan-

7 Darwin 1871, 87 (quoted in Corballis 2017, 131).

guage. A notable example is the discovery of mirror neurons by Giacomo Rizzolatti and his colleagues in Parma. These neurons – originally detected in monkeys – discharge when the animal performs an intentional act with the hands (e. g., trying to grasp an object) *and* when it observes another primate (human or monkey) accomplish a similar intentional act. Mirror neurons usually respond to both the execution of act with the hands and to facial expression. In general, the fact that these neurons are activated both by the performance and the observation of an act suggests that they play a crucial role in the learning by imitation of complex operations and behavior, including communication (Rizzolatti/Craighero 2012). Empathy has also been connected to their activation, thus reviving a theory of the "imitation of affects" that goes back at least to Spinoza.[8] As it has been pointed out (Fadiga *et al.* 2006; see Corballis 2017, 129 ff.), the position of these neurons overlaps with language areas in the brain and hence they have been connected to the issue of the origin of language since the 1990s, bringing support to those – such as Corballis himself, Michael Arbib, and Michael Tomassello – who defend the hypothesis of a gestural origin of language.[9]

The separation and disconnection of language functions and their possible replacement had been already investigated in the pioneering research of Aleksandr Luriia, which introduced a case of peculiar interest for our purposes: the distinction of writing and speech. In his book *The Man with a Shattered World* (1987), Luriia tells the story of a Soviet soldier of the Red Army, Lev Zaseczij, who was shot to the head by a bullet in the Second World War, and of his lifelong efforts to recover from his wound. In spite of being hardly able to speak and remember, Zaseczij managed to write a 4000 pages diary over the years, arguing that while writing he was able to recover lost words and memories, and eventually even some ability to speak.

> By working on that one story of mine every day – even small amounts at a time – hoped I'd be able to tell people about this illness and overcome it.

8 On mirror neurons as bases of empathy and social identification see Gallese 2009. Spinoza's theory of the imitation of affects – in the *Ethics* – was based on the claim that the observation of passions in other individuals elicits the same passion in the observer. Although this claim was not entirely original in itself, Spinoza's philosophy, where physiological processes always correspond to mental processes, provided a background for its empiristic, materialistic and neurophysiological elaboration. On the legacy of Spinoza's "imitation of affects" in modern philosophy see Scribano (2015 141 ff.). On Spinoza and contemporary neurosciences in general see e. g. Damasio (2004).

9 As we will see in the final section, neurological evidence could be connected to paleontological evidence in this regard.

> I've already worked on the story of my illness for three years. Writing about and studying myself is my way of thinking, keeping busy, working at something. It reassures me, so I keep at it. By doing it again and again (I don't know how many times I've rewritten this over the years), my speaking ability has improved. I really do speak better now and can remember words that were scattered into bits and pieces by my head wound. By training myself (through thinking and writing) I've gotten to the point where I can carry on a conversation – at least about simple, everyday matters (Luriia 1987, 85).

Inspired by Luriia's approach – that he called a "Proustian neurology" – Oliver Sacks would tell a number of stories of patients with various neurological pathologies, who were able to recover a fair amount of control over their activity by means of different experiences, such as acting and playing. In the light of contemporary neurosciences, these stories can be better appreciated: for example, the investigation on the separation and connection of reading, writing and speaking has led to the discovery of the "reading area" (Dehaene 2009). On the whole, language appears as a set of capacities that can be mainly related to different material bases and at the same time are reciprocally connected and coordinated. Many philosophers and scientists had already argued, since the 19th century, that this connection corresponded to a mechanism that concerned the "whole brain",[10] and this view is supported today in leading neuroscientific theories of consciousness, such as the Global Workspace Theory, which conceives of consciousness as a consequence of the "broadcasting" of local and specialized information in the brain network.[11] This spatial and functional coexistence, which can be compared to the cooperation of instruments in the production of a symphony, leaves open the issue of the evolutionary origin of the different functions.

6 Narrative, Literacy and Prehistoric Caves

In the preceding sections I have connected the hypothesis of the gestural origins of language to investigations of neural correlates of language. The mirror neurons provide a solid underpinning for this view, but this discovery does not fully address the evolutionary theory of language yet, that is the problem of evaluating whether there is a functional and/or temporal precedence of, e. g., gesture and the inscription of signs over speech, or a precedence of the production of sounds over gestures, etc. In particular, in the context of this paper, we are inter-

10 See. e. g. Lange 1875, 343 – 344.

11 For an exposition and defense of this theory see Dehaene 2014.

ested in learning more about the precedence of orality over writing in ancient storytelling. In this final section I will briefly examine this point.

I will start from the acknowledgment that some form of narrative is a condition for the existence of the human self. Many scholars, notably Sacks, Ricoeur and Dennett, have argued that self-consciousness is related to memory and the construction of a personal narrative or "narrative identity" and this suggests that a social context of communication might well be a necessary condition of the human self, and, in turn, of narrative.[12] This hypothesis has been positively received by neuroscientists such as Damasio (1999) and LeDoux (2003). Vygotsky and Luriia already maintained that social interaction interacts with the structural evolution of the brain. As he put it, "social history ties the knots that produce new correlations between certain zones of the cerebral cortex."[13] However, these views do not explain whether there is an original form of communication, since basic narratives of the "autobiographical self", in spite of the fact that we associate these words with orality and writing, might be constructed in memory out of gestures and pictures. Indeed, as Dehaene (2011, 24) has pointed out by comparing the brain of literate and illiterate people, the "reading area" in the brain "specializes for visual object and face recognition before committing to visual word recognition".

A tempting way to deal with this issue is to turn to paleontology. Indeed, the seminal researches of André Leroi-Gourhan aimed precisely at providing paleontological evidence that gestures preceded speech. On Leroi-Gourhan's account, in the two volumes of *Gesture and Speech* (Leroi-Gourhan 1964 – 1965), the transition to bipedality in human evolution freed the hands for grasping and modeling rocks and other material into tools, and it also freed the face for gesturing and speaking. The development of technology and language – as well as the parallel development of the cortex – all followed from the adoption of the upright stance. This approach had the advantage of considering the different operations and skills that are connected to the rise of creativity in the light of the history of the whole body in its interaction with the environment, thus avoiding the restrictive consideration of the brain and its "software" that has been lately denounced as a limit of neuroscience.[14]

Nevertheless, even if we take for granted the primacy of simple gesture acts of communication, the problem of the original way of sharing narratives is far

12 See Sacks 1985; Ricoeur 1990; Dennett 1991. See Pecere 2020b for an overview.

13 Luriia 1978, 279. See Malafouris 2010, 268: "Our minds and brains are (potentially) subject to constant change and alteration caused by our ordinary developmental engagement with cultural practices and the material world."

14 See e. g. Damasio 1994, 247 – 250.

from being settled. Indeed, I submit, the very question of an *original* form or function, in this context, may be ill-posed. A good perspective on this matter is given by the study of prehistoric cave paintings, such as those in the Chauvet cave, which count as possibly the most ancient work of pictorial – figurative and dramatic – representation of humans. A number of conjectures have been made on the meaning and the original context of these paintings. Some scholars have argued that the pictures might have been produced in a religious context and possibly accompanied by shamanic rituals and out-of-body experiences (Lewis-Williams 2002). Justin E. H. Smith has recently reviewed these hypotheses, concluding that we can make a more basic assumption:

> Scholars have shied away in recent decades from the view that this preoccupation with animals, and with their artistic representation, amounted to a magical practice, or to ritual invocation of the spirits of the beasts for shamanistic purposes. It is just as likely that the representations were supplements to a cultural practice of storytelling, aided by images that appeared to move along the walls under the flickering flame, for no other reason than that cave artists were, as we are, members of the species *Homo narrans:* people who tell stories (Smith 2018).

Be that as it may, we can conjecture that the original setting of production and observation of these works entailed some kind of communication. We may take some of these paintings as primitive forms of narrative. For example, where a herd of horses is represented, the different figures form a kind of time-lapse, which, in turn, represents a scene of riding horses. At the same time, the mixture of anthropomorphic and animal shapes suggests an incipient, creative reflection on the nature of different kinds of being, including humans. The joint awareness of successive events and the human self in question seems to provide the basic elements of a story. Whether this story was actually *told*, in the presence of these paintings, is not sure, but it is most likely that, as soon as a first attempt at this storytelling was made, both gestures and sounds might have been used to point to, describe and connect the pictures. This suggests that an originary connection of visual, gestural and auditory signs might have been the material background of narrative, long before orality and literacy emerged.

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Epigenetic Cell Memory

Abstract: The inheritance involves the transmission of DNA sequence and non-genetic information, as epigenetic modifications, across generations, contributing to parent-offspring similarity. Epigenetic inheritance concerns changes in DNA expression, it contributes to the transgenerational transmission of phenotypic variation. In this way phenotypic modifications, that are usually mediated by changes in environmental conditions, can be heritable also from one generation to the next. In the new concept of epigenetic inheritance, epigenetic modifications, which become part of the cellular information cycle, are expressed as a phenotype and are passed on to subsequent generations. This article summarizes the epigenetic inheritance from microorganism to human, highlighting how this process has implications in human health. Moreover, there are reported some known mechanisms that allow to remember the functional adaptation to environmental changes, which consists in the epigenetic memory.

Keywords: Inheritance; epigenetic mechanisms; HDAC; microorganisms; *Candida albicans*; bacteria.

1 Introduction

The state of a biological system is determined by present conditions and by past history. The inheritance involves the transmission of DNA sequence and non-genetic information, as epigenetic modifications, across generations, contributing to parent-offspring similarity. Several evolutionary biologists claim a wider evolution conception. The concept of inclusive inheritance redefines evolution as "the process by which the frequencies of a population's variants change over time" where the word "variants" replaces the word "genes" to include any inherited information, whether genetic or not genetic and with continuous or discontinuous effects.

In addition to genetic inheritance, this theory includes all other inheritance processes such as epigenetic inheritance and cultural inheritance. Both biological and social factors influence the genomic landscape independently and jointly with other forces. Genetic inheritance alone cannot fully explain why we look like our parents. As well as genes, we inherited the environment and culture from our parents, which were partly built by previous generations. Recent evidences

https://doi.org/10.1515/9783110751987-004

suggest that cultural transmission is widespread among animals.[1] Examples concern the influence that cultural heritage has on the choice of mate, on the social structure and on the hunting strategies of predators. Cultural selection is another engine of evolution as it interacts with natural selection in both animals and humans. There are different theories of cultural transmission in humans that diverge in focus and aims. Some authors reported that cultural replication happens when naive learners copy actions. Moreover, Tamariz claims that if actions are not replicated, then culture could not have evolved to produce technology, religion, art, attitudes etc (Tamariz 2019).

All types of inheritance and their complex interactions considerably expand the range of potential evolutionary mechanisms, helping to solve the main evolutionary puzzles (Danchin *et al.* 2011).

Non genetic inheritance of information across generations includes epigenetic changes in DNA expression, which are transmitted to the progeny. Epigenetic modifications are usually mediated by changes in environmental conditions. Genes and environment influence epigenome and phenotype. The phenotype variability which not depends on genetic alterations, is regulated by epigenetic mechanisms. The environment can alter gene expression. The changes in the epigenetic state of a cell is called epigenome.

The epigenome has a memory function in both somatic and germ cells. Parents and children can share the same epigenomic characteristics. The latter is the basis for transgenerational non-genetic inheritance.

The modifications, called epigenetics, are dynamic and quickly change in response to environmental stimuli. Almost every aspect of cellular life is influenced by epigenetics and, therefore, it is one of the most important fields of modern biology.

In this review, the role of epigenetics in the transmission of information is reported.

2 What Is Epigenetics?

"Epigenetic" literally means "in addition to changes in genetic sequence". The term has evolved to include any process that alters gene activity without changing the DNA sequence. The DNA contains all the information that determines the organism characteristics. The DNA contained in a cell of an organism is called genome. It consists of genes which represent the hereditary information of the

1 See Ercolani in this volume, 89 – 103.

cell. In eukaryotic cells, DNA is packaged into chromatin and it is tightly bundled to fit into the nucleus. Chromatin is formed by DNA, proteins called histones, and other proteins present in the cell nucleus. Gene expression is the process by which DNA code is converted into a functional product, that contributes to determine the specific characteristics of the cells. The level of condensation of chromatin varies during the life cycle of the cell and plays a very important role in gene expression. Covalent modifications of histones and DNA can influence the expression of genes. Each cell in an organism contains the same DNA, but the phenotype depends on the way in which the DNA is expressed. In our body, the mature cells, that form different tissues, are morphologically and functionally very different from each other (such as, for example, a neuron and an epithelial cell), even if they all originate from a single cell, the zygote. In a mature cell, only 10 – 20 % of the genes are active, while the rest is inactive. This means that, in different cell types, some genes must be switched on while others must be switched off. Epigenetics is a mechanism for the stable maintenance of gene expression, which allows genotypically identical cells to be phenotypically distinct. Three systems are considered key elements to start and support epigenetic change: DNA methylation; chromatin changes, that include the methylation, acetylation, phosphorylation, ubiquitylation, and SUMOylation of the histone proteins; non-coding RNAs. These systems often work cooperatively, acting together to turn specific genes on or off. DNA methylation is the most studied epigenetic modification. The most abundant methylation in DNA is the addition or removal of a methyl group (CH_3) to the cytosine nucleotide in the regions of DNA where the process of transcription of the gene begins. DNA methylation is mediated by specific proteins called DNA methylase or DNA methyltransferase (abbreviated to DNMT). This epigenetic modification is associated with the transcriptional repression of a gene. DNA methylation, like all epigenetic modifications, is reversible.

However, some DNA methylations are not removed and are inherited in later generations. Like DNA, histones can be modified by adding chemical groups to the amino acids that compose them, in particular in one of their ends (the histone tails). Histone changes are capable of modulating the activation and inactivation of genes. Histone methylation or demethylation are mediated by histone methyltransferases (HMTs). Histone acetylation is catalyzed by histone acetyltransferases (HATs), which transfer an acetyl group from acetyl coenzyme A to the ε-NH^+ group of a Lys residue within a histone. The process is reversible, and the enzymes that catalyze the reversal of histone acetylation are known as histone deacetylases (HDACs).

As other proteins, histones are ubiquitylated through the attachment of a ubiquitin to the ε-NH^+ group of a Lys residue, leading to the degradation of

the protein structure. Phosphorylation of histones H1 and H3 was first observed more than 50 years ago in the context of chromosome condensation during mitosis (Bradbury *et al*. 1973, 131–139). The genome contains numerous non-coding sequences which are transcribed in non-coding RNA. Some of them have been identified as important epigenetic regulators. Animal species express three types of endogenous silencing-inducing small RNAs: microRNAs (miRNAs), endogenous siRNAs (endo-siRNAs), and PIWI-interacting RNAs (piRNAs) (Kim *et al*. 2009, 126–139). The roles of nuclear small RNAs of a broad range of organisms include epigenetic inheritance and developmental gene regulation (Castel 2013, 100).

3 Epigenetics and the Environment

Epigenetic mechanisms are essential to many organism functions. Many epigenetic modifications become biologically stabilized at a particular stage of development and are maintained subsequently throughout the lifetime of the organism. The environmental factors modulate the establishment and maintenance of epigenetic modifications, influencing gene expression and phenotype.

Chemical pollutants, dietary components, temperature changes and other external stresses can indeed have long-lasting effects on development, metabolism and health, sometimes even in subsequent generations. This mechanism is related to the capability of cells to maintain the homeostasis in adverse conditions, modifying metabolism through an alternative genetic expression. Epigenome remodeling by environmental stimuli such as diet, physical activity, hormones or pheromones, affects several aspects of transcription and genomic stability, with important consequences for longevity (Benayoun *et al*. 2015, 593–610).

Diet (Fontana *et al*. 2010, 321–326), exercise (Janssen *et al*. 2013, 23–29), sexual stimuli (Maures *et al*. 2014, 561–544) and circadian rhythms (Orozco-Solis/Sassone-Corsi 2014, 66–72) and others environmental factors can induce epigenetic remodeling. There is a linear relationship between external factors and specific chromatin changes. Data obtained using animal model such as *Drosophila*, *Caenorhabditis elegans*, mouse, rat and also human have demonstrated that parental environmental alterations can affect the phenotypes of offspring through gametic epigenetic alterations. This could explain the prevalence of obesity, type 2 diabetes and other chronic non-genetic diseases in specific population groups (Wei *et al*. 2015, 194–208).

4 Epigenetics and Information Storage

A crucial process in life is the ability of cells to pass useful information to their descendants. Some of this information is encoded within molecules of DNA, including genes that contain specific coded instructions. Another layer of information is epigenetic information, that specify whether individual genes are switched on or off, which means cells with the same genes can perform different tasks (Saxton/Rine 2019, 8).

Several examples demonstrate that epigenetic mechanisms are widely used for the formation and the storage of cellular information in response to environmental signals. The storage of cellular information can be compared to the formation of behavioral memory in the central nervous system.

Some authors propose two different molecular signals of epigenetic states: 'cis' and 'trans' signals. In 'cis memory', epigenetic information is stored in chromatin states that are associated with DNA methylation or histone modifications; in 'trans memory', epigenetic information is stored in the concentration of a diffusible factor such as a transcriptional repressor. A natural system in which is possible to study this issue is the cold-induced epigenetic silencing at *Arabidopsis thaliana* Flowering Locus C (Dean 2017, 140).

5 Epigenetic Inheritance

Environmental signals can induce epigenetic changes that are transmitted to subsequent generations. This phenomenon goes by the name of epigenetic inheritance.

In eukaryotes, chromatin packages organize the genome in order to protect it from environmental insults and to orchestrate all DNA-based processes, including DNA repair and transcription (Allshire/Madhani 2018, 229 – 244). Cells preserve transcription programs and chromatin composition. In this way, chromatin states contain epigenetic information. During cellular replication, the chromatin status is maintained and propagated as cellular identity is one of the key elements in this event. As well as in the somatic cells this can happen also in gametes, guaranteeing the acquisition of epigenetic modifications in the progeny. In the last years, new technologies have permitted many discoveries that have deepened our understanding of transgenerational epigenetic inheritance (Heard/Martienssen 2014, 95 – 109). The specific contribution of individual chromatin components, such as histone post-translational modifications, DNA methylation, or histone variants, is less clear. How the DNA replication and

the cell cycle influence chromatin and the epigenome remains more elusive (Annunziato 2015, 353 – 371). During DNA replication, histone chaperones, epigenetic modifiers and chromatin remodelers accompany the replisome and re-assemble chromatin post-replication. Chromatin components, which carry epigenetic information, are handled at the replication fork determining how nascent chromatin matures post-replication. Advances in technologies are now permitting the analysis of the relationships between DNA replication, chromatin assembly, cell cycle, and epigenome. Nucleosome assembly is tightly integrated with DNA replication. Therefore, chromatin assembly represents a system to study epigenetics, for understanding how chromatin function is inherited in dividing cells and its importance in epigenetic cell memory (Stewart-Morgan *et al*. 2020). An example of inherited epigenetic memory has been demonstrated in *Caenorhabditis elegans*. It has been shown that, in this animal, epigenetic inheritance passes through the production of small non-coding RNA molecules. These small RNAs, produced by natural conditions, are transmitted to the following generations (Greer *et al*. 2011, 365 – 371). An environmental change can induce changes that affect DNA or histones. The modification appears in the germ cell of the adult and is then transmitted to the subsequent offspring through the fertilization process.

Agrawal *et al*. (Agrawal *et al*. 1999, 60 – 63) reported that *Daphnia cucullate*, a tiny crustacean known as "water flea", responds to the chemical signals of its predators by increasing the size of the "helmets", extensions of the exoskeleton that most protect the animal. Its nonexposed progeny born with the enhanced helmet, even in the absence of predator signals. This effect continues in subsequent generations but, in absence of a new signal, the helmet becomes smaller and smaller.

Indeed, the epigenome can change rapidly in response to signals from the environment and in many individuals, multiple epigenetic changes may occur at one time. Through epigenetic inheritance, some of the parental experiences can pass on to future generations. Epigenetic inheritance, therefore, can allow an organism to continuously adjust its gene expression in order to adapt to the environment, without changing its DNA code.

6 Memory and Epigenetic in Bacterial Cells

Phenotypic heterogeneity is common in bacteria and frequent during adaptation to environmental changes. Inheritable phenotypic diversity without DNA sequence changes is controlled by epigenetic mechanisms. In bacteria, the epigenetic mechanisms range from feedback loops to DNA methylation patterns (Ca-

sadesús/Low 2013, 13929 – 13935). DNA-protein interactions, as in eukaryotes, are controlled by DNA methylation, found in bacterial genomes. In many bacterial species, such as *Escherichia coli* and *Salmonella* Typhimurium, methylation controls reversible switching of gene expression, that generates phenotypic cell variants (Sánchez-Romero/Casadesús 2020, 7 – 20). Some authors suggest the presence of a long-retention effect, or "memory effect," of the persister cell state, which is described in the colony-biofilm culture of *Escherichia coli* and a wide variety of other bacteria (Miyaue *et al.* 2018, 1396). The actual extent, variety and potential selective value of prokaryotic memory devices remain open questions, still to be addressed experimentally. Possible implications could interest the role of epigenetic in bacterial resistance and adaptation against immune system and drugs, factors which contribute to determine bacterial pathogenicity.

7 Memory and Epigenetic in Fungal Cells

Chromatin modifying elements have been implicated in fungal morphogenesis and virulence. In *Candida albicans*, biofilm, adhesion and morphological transitions are epigenetically modulated and have been linked, more-or-less specifically, to defined processes.

Epigenetic variations during the infections, such as yeast-hyphae transition, contribute to the fitness of *Candida albicans* in a specific host niche. In this fungal specie there are different epigenetic modulators that regulate the phenotypic transitions (Rotili *et al.* 2009, 272 – 291).

In our previous studies, we have evaluated the inhibition of adhesion, which is the first step of biofilm formation, using histone deacetylases inhibitors. The results demonstrated 90 % reduction in the adherence of *Candida albicans* to the human cultured pneumocytes. Moreover, we have demonstrated that histone deacetylase inhibitors inhibited germination in several strains. The treatment with different histone deacetylase inhibitors resulted in transcriptional down regulation of EFG1 and this is proportional with the ability to inhibit germ tube formation. These histone deacetylase inhibitors were consequently able to affect a step that is considered crucial in giving *Candida albicans* its potential to cause systemic infections *in vivo* (Simonetti *et al.* 2007, 1371 – 1380).

Important issues in fungal infections, which are common in compromised patients, are treatment failures that are associated with the emergence of azole-resistant strains of *Candida albicans* during treatment, in vivo and in vitro. Acquired resistance to azoles and other drugs was shown to be inducible. This antifungal resistance has not been associated with plasmids or other trans-

ferable genetic elements but is thought to involve primarily mutations and genetic or epigenetic rearrangements.

In cultures, histone deacetylases inhibitors have minimal effects on *Candida albicans* growth but, in combination with fluconazole, showed a strong reduction of the resistance induction through regulation of CDR and ERG genes (Mai *et al.* 2007, 1221–1225).

Studying epigenetic mechanisms in fungal pathogens can reveal innovative therapies and treatments which go beyond the resistance equipment that these species have.

Saccharomyces cerevisiae is a well-studied model system for epigenetic regulation and inheritance of chromatin states. This specie has provided a wealth of information on the mechanisms behind the establishment and maintenance of epigenetic states, not only in yeast, but also in higher eukaryotes. In higher eukaryotes the hereditary domains of chromatin are of H3K9 and H3K27 with trimethylation (H3K9me3), (H3K27me3), associated with repressed chromatin. The experiences determine modifications at phenotype and genotype level. Both memory and learning depend on a variety of communicative processes within the whole organism (Witzany 2018, 1–16).

8 Memory and Epigenetic in Mammalian Cells

In addition to genes, we inherited from our parents the environment and culture, which have been partially built by the previous generations.

Non-DNA sequence-based inheritance of information occurs in multiple species and it is important for development and physiology. Several reports on transgenerational responses to environmental or metabolic factors in mice and rats have been published. The inheritance of environmental factors is due to epigenetic modifications as DNA methylation; Wei and colleagues showed that in male mice prediabetes, caused by streptozotocin, affects DNA methylation in sperm, leading to a pathological picture in pancreatic islets of offspring (Wei *et al.* 2015, 194–208).

As said before, different mechanisms can determine the parental effects over a single generation with phenotypic consequences. For example, the progressive loss of function in cells, tissues and organs associated with aging is influenced by both genetic and epigenetic factors. (Carlberg/Molnár 2019).

Epigenetic inheritance of transcriptional repression can be perturbed by environmental insults, with gradual restoration over generations leading to a transgenerational transfer of information about ancestral environmental experience.

In animals, the epigenetic profile of cells sums up the signals that the organism has faced during his life, progressively edifying a kind of cellular memory. Epigenetic modifications record the experiences of cell modifying genic expression. During embryonic development, the organism receives external stimuli which orchestrate tissue differentiation, permitting cells to assume distinct identity and specialized function. In mammals, changes in gene expression, which modify cellular function and properties in response to environmental pressure, are often propagated from mother to daughter cells (Ehrenhofer-Murray 2004, 2335 – 2349; Levenson/Sweatt 2005, 108 – 118).

The study of epigenetics and social epigenomics permits to understand the complex connection between biology and socio-cultural factors such as diet, stress, environment and cancer. In human, different biological, environmental, and socioeconomic conditions may contribute to racial disparities in lung cancer as effect of different epigenetic modifications in pneumocytes.

Terry and colleagues, reported that lung cancer is associated with race of African Americans, which have the DNA more hypomethylated than Non-Hispanic White or Hispanic (Terry *et al.* 2008, 2306 – 2610).

Moreover, social stressors such as stress, starvation, domestic violence and war has been shown to alter methylation status, increasing susceptibility to develop pathologies (Watson *et al.* 2019, 87).

Some authors reported that individual behavioral identity such as diet, physical activity, smoking and alcohol consumption affects the phenotype of the subsequent generations through epigenetic modulation of spermatozoa (Donkin/Barrès 2018, 1 – 11). Epigenetic changes determined by environmental factors persist even after the removal of the inducing agent, causing long-lasting effects.

Obese and lean men have a different epigenome which can be passed on the offspring, affecting subsequent generation's health (Marsit 2015, 71 – 79).

Ahmed reported that traumatized individuals can transmit metabolic modifications until the third generation. This mean that trauma has negative consequences on spermatozoa and ova which are the links between generations (Ahmed/Alsaleh 2019, 115).

Otherwise, favorable environments and healthy behaviors can have positive consequences on the germ cells in individuals and consequently on the offspring.

Some authors showed that dietary percent of macronutrients are correlated with DNA methylation (Williams 2017). The food can influence the epigenetic state of cells, therefore can change gene expression and be inherited from our offspring.

In conclusion, epigenetics has overturned the rules on cell identity, inheritance and disease. It represents a real revolution for biology and offers answers

to problems of general interest, providing new weapons against human affections.

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Federico Albano Leoni

Some Remarks on Orality and the Antinomy between Writing and Speaking in Western Linguistic Thought

Abstract: This article offers a concise outline of: a) the general features of orality and how it differs from writing; b) the history of the antinomy between writing and speaking in Western linguistic thought from Plato to the present day and the reasons for the expunging of orality; c) contemporary research trends and the primacy of signification in the analysis of words and spoken language; d) the usefulness of corpora for the study of spoken language.

Keywords: Orality; spoken language; paralinguistic; suprasegmental; signification; corpus linguistics.

Orality, which is to say the vocal – yet not necessarily linguistic – mode of expression used by human beings, presents some specific features. Some of these it shares with writing, while others are peculiar to it. Here I will chiefly refer to so-called primary orality and to what Nencioni 1976 has compellingly referred to as "il parlato parlato" (really spontaneous spoken language), which manifests in spontaneous dialogue with free turn-taking. However, writing will still be present in the background, as contrastive observation aids the understanding of both.

In this presentation of the state of the art and of its antecedents, we will come across historiographical and theoretical questions that would be worth discussing separately, but which can only be recalled here. I will therefore strive for succinctness and divide my presentation into three sections.[1]

In the first I will briefly outline the general features of orality: its properties, its power, and its intrinsic multimodality, as these are now commonly acknowledged in studies on the topic.[2]

1 I have frequently had the opportunity to discuss the topics of orality and spoken communication, either directly or indirectly. Therefore, in the present text I will often be drawing upon previous works of mine. The core ideas I am about to present may be found in Albano Leoni 2014. Some insights are drawn from Albano Leoni 2002 and Albano Leoni 2015a.

2 The bibliography on the topic is vast and any attempt at exhaustiveness would be in vain. Here I will simply recall the well-known and still valuable works by Havelock 1963, Ong 1982, and Zumthor 1983, as far as the general aspects of orality are concerned, and, as for the linguistic aspects of

https://doi.org/10.1515/9783110751987-005

In the second section, I will touch upon the issue of how the question of orality has been posed (or not posed) in Western thought from Plato to the present day.

In the third, which follows closely from the second, I will discuss how linguistics – in its institutional form, at any rate – has approached orality, particularly in the 20th century.

In the conclusions I will endeavour to outline possible future developments.

1 The General Features of Orality

1.1. The first feature is the voice's pre-linguistic *primordial power:* its capacity to immediately manifest moods and feelings, to direct the attention of individuals belonging to the same species towards something (appeal), and to manifest the speaker's gender, age, state of health, and bodily structure. The manifestation of these states is often accompanied by gestures, facial expressions, and different postures. These properties are partly common to many non-human animals as well.

1.2. The second feature, which Humboldt 1836 acknowledged as fundamental, is dialogue, sharing: without a listener who can understand us and without the shared knowledge of a world and form of life, our voice is nothing but noise.[3]

1.3. The third feature is the semiotic, linguistic power of the voice, its ability to be meaningful, which is to say to give sensible symbolic form both to meanings which we might describe as referential, and which refer to the world and to meanings that we might call modal, conveying the speaker's attitude towards what he or she is saying (moods, emotions, and more generally all the passions of the soul). This last capacity manifests itself not only through gestures and facial expressions, but also through constant variations of tone, rhythm, and intensity, in the constant alternation of thesis and arsis, and in the countless shades

spoken language, a landmark work by De Mauro 1970, an influential little book by Halliday 1985, a more recent overview Albano Leoni 2015a, and a very recent publication by Voghera 2017. As regards the pragmatics of spoken language, see Bazzanella 1994 and Sbisà 2007; on bodily language, see Poggi 2006. Finally, on the influence of writing on the development of linguistic theories, see Olson/Torrance 1991, Downing *et al.* 1992, and Harris 2000. A survey parallel to the one I am conducting here may be found in Poli 2020.

3 A monologue is a literary or theatrical fiction, and even inner monologue – which is to say any expression of endophasic speech – is mostly the outcome of the splitting of an I that speaks and listens to itself (Di Cesare, in Humboldt 1836, It. transl., xxxvi-xxxvii; Benveniste 1970, 85 – 86).

of meaning we lend to our voice. Humboldt 1836, 51–52, uses highly evocative words to express its power:

> Da das intellektuelle Streben nicht bloß den Verstand beschäftigt, sondern den ganzen Menschen anregt, so wird auch dies vorzugsweise durch den Laut der Stimme befördert. Denn sie geht, als lebendiger Klang, wie das atmende Dasein selbst, aus der Brust hervor, begleitet, auch ohne Sprache, Schmerz und Freude, Abscheu und Begierde, und haucht also das Leben, aus dem sie hervorströmt, in den Sinn, der sie aufnimmt, so wie auch die Sprache selbst immer zugleich mit dem dargestellten Objekt die dadurch hervorgebrachte Empfindung wiedergibt.[4]

1.4. The fourth feature is indeterminateness, which is a general property of languages and of all their expressions, including writing, but which is particularly evident in spoken language. It manifests itself in the fact that most of the enunciations we produce in natural conditions are ambiguous, and thus it is necessary to interpret them to grasp their meaning. This occurs through hypotheses and inferences (De Mauro 1994), which also depend on the context and on our expectations. Far from being a limit of languages, indeterminateness is an instrument of their semiotic omnipotence and spareness: it enables the reuse of old material to express new senses, not least through the capacity of speakers and languages to constantly redefine the boundaries of meanings (consider the emblematic case of metaphors and of tropes more generally). All this is possible, without limiting mutual understanding, because ambiguity is counterbalanced and determined by what has been defined as the *deictic field* (Bühler 1934), namely explicit or implicit references to the surrounding world,[5] or to the broader one of shared knowledge.

The intertwining of a symbolic capacity and of deixis (Bühler 1934) is the foundation of our capacity to express and understand any conceivable meaning. Moreover, in spoken language indeterminacy also acquires a material dimension, because – as we shall see in 3.1 – even the phonic form can be vague, to

4 At a more trivial level, let us think of literary locutions such as *angelica voce, voce cupa, voce domenicale*, *voce cattedratica*, and *torbida voce notturna* in Italian (Albano Leoni 2002 for the sources; see also Galazzi 1997). These locutions reveal what characteristics the literary imagination attributes to the voice (characteristics which to some extent are understood and regarded as plausible by speakers). A fine treatment of issues related to voice labels is provided by Laver 1974, Laver 1976, and Laver 1980. On the vocal expression of emotions, see Anolli/Ciceri 1997.
5 The prototypical example, of course, is represented by deictics, personal pronouns, and verb tenses, which are empty in themselves, but are specified in the act of enunciation that includes the coordinates *I*, *here*, and *now*. These forms, which in speech are clear even when they occur in an isolated, one-word enunciation, are empty in themselves in writing, unless they are accompanied by an explicit linguistic context.

the point that words taken out of the context in which they have been produced and are understood may no longer be recognisable (Albano Leoni/Maturi 1992).[6] This too is a form of economy related to the principle of least effort.

1.5. Today there is widespread awareness of the fact that speaking and writing are not two expressions of language that merely differ in terms of the material by which they manifest themselves – respectively, graphic and phonic material. Rather, it is generally agreed that they constitute two semiotic modes of the enactment of language that differ in many respects: one is the crucially important fact that – as I have just noted in 1.4 – in spoken communication signification processes do not all exclusively occur within the text, understood in a conventional sense as the linear succession of linguistic units; rather, they are often largely external to the text in a strict sense, and conveyed by elements that are conventionally regarded as extralinguistic or paralinguistic (see par. 3.2), such as prosody, voice, gestures, and facial expressions. Spoken language, therefore, is multi-modal to a far greater degree than written language.[7]

Finally, nowadays we know that the processes of reading and writing are very different from those of speaking and listening, because the percepts involved are different (in one case they are discrete, in the other continuous), as are the neurological mechanisms activated, the time and mode of execution and interpretation of the text, and, lastly, the pragmatic conditions (absence/presence of an interlocutor). Spoken and written language, then, are irreducible and there are no intermediate levels between the two (Albano Leoni 2015a).

1.6. This new awareness has led to the flourishing of study projects and research centres focusing on spoken language, on the analysis of conversation and discourse, and on the investigation of the pragmatic aspects of spoken communication. Thus, after the long structuralist and generativist eclipse, real speakers have come (or returned) to the fore, with their communicative intentions and means to achieve them (including non-verbal means). This has added new elements to the theoretical and semiological foundations of linguistics, although it must be acknowledged that classical descriptive frameworks are still based on the (often implicit and unstated) assumption that there is only one language,

6 Much the same occurs in the case of informal handwriting, where individual segments or portions of the text are often indecipherable and only recognised – if at all – on the basis of hypotheses formulated by taking the context and the reader's expectations into account.

7 Paradoxical as it may seem, it must be noted that this last aspect of spoken language is also shared by the sign languages of the deaf, so much so that spoken language is closer to sign language than it is to written language, as recently shown by Volterra *et al.* 2019. For the complex relationship between sign languages and orality seen also Capirci/Bonsignori in this volume, 69 – 87.

namely written language, and that spoken language is but an imperfect expression of it.

As we shall see in par. 3, we have reached this state of affairs and awareness through a process that began in the late 19th century, and which has progressively come to incorporate an interest in living languages, phonetic studies, studies on *parole*, an interest in psychology[8] and the cognitive sciences, pragmatics, conversation studies, and – last but not least – the application of technologies for automatic voice processing, such as simulations of the vocal interaction between human beings and machines.

In addition, we should not underestimate the contribution provided by scholars such as Havelock 1963 and Ong 1982 when it comes to awareness of the fact that orality and writing differ semiotically and cognitively, and fulfil different communicative functions, as well as the fact that the presence of an alphabetic representation of language also has a profound influence on a community's modes of knowledge and categorisation of the world.

2 The Antinomy between Writing and Speaking in the History of Western Linguistic Thought

In the Western world, the history of the awareness of this difference is a discontinuous and unique one, which conventionally stretches from Plato and Attic culture to the contemporary situation I have just outlined (while also being documented in the Latin world, at least up to Augustine).[9] What lies in between? Apparently, not much: indeed, it seems that the antithesis in question, which was quite clear to Plato, Alcidamas, Cicero, Quintilian, and St Augustine, was progressively obscured, forgotten, or at any rate resolved in favour of the predominance of written (and, in our case, specifically alphabetical) representation, which became the form of representation of language par excellence and its only important form. This history, then, is marked by a profound rift: on the one hand, we have the Greek world, particularly that of the 5th-4th centuries BC, and the Latin world between the 1st century BC and the 1st century AD; on the other, we have a period of stagnation that lasted until the end of the 19th century.

8 I am thinking of the works of Herbart, Steinthal, and Wundt, and especially of Hermann Paul's *Sprachtheorie*, an important and still highly relevant book, not least for the issue of the speaking subject, as is shown by the pithy overview provided by Formigari 2004, 154–159.
9 A first overview of certain moments in this history may be found in the essays collected by Orletti/Albano Leoni 2020.

2.1 Philosophers, Rhetoricians, Greek and Latin Orators

The Greek world undoubtedly plays the most prominent role in this history of the reflection on, and awareness of, the antinomy between writing and speaking, and of its general implications. In his logographic excursus in the *Phaedrus* (De Mauro 1970), Plato recounts the myth of Thamus and Theuth, where the god who invented writing sings its praises, and the wise pharaoh shows its flaws. This account illustrates with remarkable clarity what today we would call the cognitive, pragmatic, and mnemonic aspects of spoken language, and how they differ compared to written language. Plato was aware that he found himself at a turning point between an archaic, oral phase, in which writing ultimately still played a marginal role – chiefly an epigraphic and monumental, or administrative, role – and a modern phase in which writing was becoming an instrument commonly employed to record language and, I would add, to establish a form for the representation of language that remains dominant in those parts of the world which have developed alphabetic writing. No less interesting is the case of Alcidamas – investigated by Piazza 2020 – who evokes the vitality and plasticity of speech in contrast to the rigidity of writing, along with the role of memory and differences in terms of production times, stressing the primacy of spoken language.[10]

This awareness stems from at least two factors described by Serra 2020, Piazza 2020, and Di Piazza 2020.

The first is the fact that in its earliest phase the Greek world was still steeped in orality, which implied a very pregnant view of spoken language, given that for a long time this had been the only instrument for human interaction as well as for the preservation of memories, poetry, history, and encyclopaedic knowledge – indeed, this still continued to be the case to some extent.

The second factor, which is closely connected to the first, is the fact that in Greece, and particularly in Attica, a heated debate on the issue emerged involving philosophers, orators, and logographers. This debate revolved around the controversy over which form of rhetoric was better: the form which is orally improvised and agonistic, or that which is recited on the basis of a written text. This controversy powerfully brings out the antinomy between writing and speaking (or between recited speech and improvised speech), with all its implications. It is rhetoric, then – understood in its original, noble sense – that constituted

10 Of course, other positions are to be found as well. In one famous passage, Thucydides claims that his (written) work is an everlasting achievement, whereas (spoken) addresses can only provide temporary satisfaction (Serra 2020).

the fabric of this debate in the Athenian milieu, where political and legal oratory was central to public life. Besides, as Serra 2020, 10 notes,

> la retorica, costituendo il primo metalinguaggio sviluppato nella cultura greca antica, rappresenta anche il luogo teorico privilegiato in cui essa ha esplicitamente incominciato a riflettere sull'attività del parlare e quindi sulla dialettica oralità/scrittura.

Confirmation of the fact that political and legal rhetorical practices are the reason for the enduring awareness of this antinomy comes from the Latin world, which would be worth investigating in detail in this respect. Here – while providing a few examples in the footnotes – I will only recall that even a cursory look at *Rhetorica ad Herennium*, and at Cicero's *Orator*, and *De oratore*,[11] followed by Quintilian's *Institutio*[12] (and possibly St Augustine's *De magistro*),[13] would be enough to identify many pertinent reflections and to confirm the endurance of elements that were also commonly found in ancient Greece's debate. The most notable of these is the significant connection between the reflection on the antinomy between writing and speaking and the flourishing of political and legal (later exclusively legal) rhetoric, of the sort certainly found in Rome between the time of Cicero and that of Quintilian (as well as – we should add – Augustine's interest in education).

This time frame would also include the Stoics and grammarians of Alexandria, but – for reasons that will soon become evident – I prefer to deal with them in relation to the subsequent phase.

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11 Cic., *orat.* 17 *quo modo autem dicatur, id est in duobus, in agendo et in eloquendo. Est enim actio quasi corporis quaedam eloquentia, cum constet e voce atque motu. Vocis mutationes totidem sunt quot animorum, qui maxime voce commoventur. Dicerem etiam de gestu, cum quo iunctus est vultus; quibus omnibus dici vix potest quantum intersit quem ad modum utatur orator.*

12 Quint., *Inst.* 1, 11, 2–3 is interesting because in warning a pupil against some of *elocutio*'s flaws, the author indirectly lists the voice's potentialities, which actors exploit: *non enim puerum, quem in hoc instituimus, aut femineae vocis exilitate frangi volo aut seniliter tremere. Nec vitia ebrietatis effingat neque servili vernilitate imbuatur nec amoris, avaritiae, metus discat affectum* [...]. *Ne gestus quidem omnis ac motus a comoedis petendus est. Quanquam enim utrumque eorum ad quendam modum praestare debet orator, plurimum tamen aberit a scenico, nec vultu nec manu nec excursionibus nimius.*

13 Aug., *de mag.* 7, 19 [...] *ventum est ad ea quae interrogantibus digito monstrantur. Haec ego corporalia esse omnia arbitrabar, sed invenimus sola visibilia. Hinc nescio quomodo ad surdos et histriones devenimus, qui non quae sola videri possunt, sed multa praeterea ac prope omnia quae loquimur, gestu sine voce significant; eosdem tamen gestus signa esse comperimus. Tum rursus quaerere coepimus, quomodo res ipsas quae signis significantur, sine ullis signis valeremus ostendere, cum et ille paries, et color, et omne visibile, quod intentione digiti ostenditur, signo quodam convinceretur ostendi.*

2.2 From Late-Antique Grammarians to the Late 19th Century

Between the Hellenistic Age – a period partly overlapping with the previous phase from a chronological standpoint – and Late Antiquity, the picture changes, and the study of language chiefly involves grammarians. An antecedent is to be found in the Stoics and in the crucial effort made by the Alexandrian grammarian Dionysius Thrax to define a canon for the description of grammar, with the emergence of a kind of 'technicisation' of it (the title of Dionysius' work is precisely τέχνη γραμματική). Here I will only briefly refer to the vast and largely repetitive output of the Latin grammarians. The two who stand out the most, in terms of the spread and enduring popularity of their writings, are Donatus and especially Priscian, who strongly influenced the subsequent treatment of grammar in Europe down to the 19th century.[14] Terms developed in the previous phase and then rendered in Latin (*elementum* or *littera*, *vox individua*, *composita, articulata, syllaba*) crystallised into a doubtless powerful school model which remained largely unchanged until the late 19th century.

It is worth briefly recalling here two short definitions by Donatus (*Ars maior*, IV, 367 f. Keil), since they constituted the foundation of phonetics for centuries: *littera est pars minima vocis articulatae* and *accidunt unicuique litterae tria, nomen figura potestas. Quaeritur enim quid vocetur littera, qua figura sit, quid possit*. What we have here is an excellent stratagem to distinguish between letters and sounds (Latin grammarians were aware of the physical difference between the two: see Desbordes 1988, and Desbordes 1990): the *nomen* is the name of the *littera*, the *figura* is the graphic aspect, *potestas* the phonic aspect, and *littera* is the thing to which the three *accidentia* – or what remains of this Aristotelian concept – are subordinated.[15]

14 Some exceptions are to be found within this long history, such as Cesarotti (Roggia 2020) and Leopardi, yet the dominant atmosphere is the one just outlined. As examples, we can refer to the 16th century treatises on rhetoric and poetry brought together by Weinberg 1970. It is evident that by this stage rhetoric had come to be understood as the science of fine writing, and had lost the civic overtones previously illustrated.

15 As late as 1822 Jakob Grimm – one of the founding fathers of comparative linguistics, along with Franz Bopp – entitled the first part of his *Deutsche Grammatik* (1822) *Von den Buchstaben*, thereby showing that he was still operating fully within the season of the *littera* I have just discussed. The fact that the misunderstanding in question is deep-rooted and conceptual rather than merely terminological clearly emerges from remarks that seem quite striking to us, such as "In unserm worte schrift z. B. drücken wir acht lauten mit sieben zeichen aus, f nämlich stehet für ph" (3).

The idea of *vox articulata*,[16] already found in Aristotle's *Poetics*, thus became consolidated, providing the matrix for the compositional view of language according to which the latter is a succession of elements ranging from simple to more complex ones.[17] Alphabetic writing, therefore, was no longer merely a tool for representation, but the matrix of a phonological theory which was functional to the representation of language as the linear succession of discrete elements, yet very weak – almost useless – for the representation of other crucial components of spoken language such as prosody, which is scarcely represented in writing, if at all.

There is an interesting litmus test we can perform to grasp the influence which the tyranny of the alphabet (Harris 2000) has exerted on the study of signifiers. Over the centuries up until the 1800s, grammarians, anatomists, and teachers paid considerable attention to individual segments.[18] This occurred because alphabetic writing provided for them an excellent representation and visual conceptualisation. But in those cases where writing proved deficient, as with the representation of prosody, which for a long time was completely overlooked and later – quite recently, in fact – only marked through the use of a few diacritics, the phenomenon – in this case a very important one – was simply ignored. Significantly, until very recent times, prosody was the Cinderella of phonological studies, as it never featured in treatments of the subject: at most, it was presented by teachers in its limited sense of a discipline ancillary to the study of metre, used to scan verses and identify the number of vowels and syllables. In other words, as already noted, what we have is the tyranny of the alphabet. This is an interesting example of how the representation of a phenomenon can give rise to a certain theory and determine the course of a field of study.[19]

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16 Laspia 1997 has devoted an important study to this compelling anatomical and biological metaphor which find its basis in Greek ἄρθρον, "limb, joint, articulation" (and derived terms such as ἔναρθρος, "articulated"), which clearly also gives us the Latin (*vox*) *articulata*. Unlike Laspia, who believes that the metaphor stems from an attempt to represent a property of language, I believe that it derives from the influence of the alphabetic representation of language.

17 Arist., *Poet*. 1456b τῆς δὲ λέξεως ἁπάσης τάδ' εστὶ τὰ μέρη, στοιχεῖον συλλαβὴ σύνδεσμος ἄρθρον ὄνομα ῥῆμα πτῶσις λόγος, "diction as a whole is made up of these parts: letter, syllable, conjunction, joint, noun, verb, case, phrase" (transl. W. H. Fyfe). The progression thus begins with letters, continues with syllables, and ends with phrases. The very term syllable (defined as *comprehensio litterarum* in Latin) is revealing of the compositional view.

18 A survey of this interest on the part of physicians and teachers can be found in Dovetto 2020, and Poli 2020.

19 With regard to prosody, it may be useful to recall the opposite case. In the representation of enunciations' prosody, the current – and indeed dominant – system is the so-called ToBI one (*Tone and Break Indices*, initially developed by Pierrehumbert 1980 and further refined in Beck-

3 Modern Linguistics, the Rediscovery of Spoken Language, and Its (Partial) Removal

An awareness of the peculiarity of spoken language resurfaced in the second half of the 19th century.

3.1 New Problems and Regressive Answers

The turning point which has led to the current awareness of spoken language's specificity is essentially due to two factors, one general and the other more specific.

The general factor is the interest in living languages and their actual usage, combined with the birth of psycholinguistics in Germany (see n. 9) and attentiveness towards this subject (which has proven to be far from constant within linguistics).[20]

The specific factor lies in vocal recordings, which have made spoken language permanent and open to repeated observation and listening, along with the emergence – shortly afterwards – of sound spectrum analysis since the work of Rousselot 1902. This new technique made the physical properties of spoken language visible. The new technical knowledge required a revision of phonetic models (and a few decades later of the new phonological models) in the light of the newly discovered properties of the object of investigation.

Indeed, instrumental phonetics unequivocally revealed that, from a material point of view, spoken language was *variable*, *fragile*, and *non-segmentable*, which is to say *systematically non-discrete*.

This discovery undermined the three fundamental properties of the classic model of language, constructed on the basis of alphabetic representation

man/Pierrehumbert 1986, and then in Ladd 1996). This is based on the principle that the rhythm and melodic flow of a language consists of a succession of high and low pitches, viewed from a binary perspective (± high; ± low) and that is plainly derived from the phonological binarism developed by Jakobson and later adopted with modifications by Chomsky. In this case, the theoretical model adopted, i.e. binarism with its matrix-based representations, is imposed on the representation of the phenomenon despite its manifest inadequacy.

20 On the eclipsing of the subject in 20th-century structuralist theories (after the season recalled in n. 9), see De Palo 2016. Much the same has occurred in generative theories – Benveniste 1958 being a significant exception.

which created segments that appeared to be precisely *invariable*, *solid*, and – naturally – *discrete*.

What was one to make of this new picture? It was necessary to either change the model or take some remedial action. Linguistics chose the latter option.

A response to *variability* was found in the concept of *phoneme*,[21] which made it possible to re-establish invariability and discreteness by confining observed phenomena within the sphere of non-pertinent variants which, as such, were considered irrelevant from the point of view of theory. Linguists thus retrieved the old notion of *littera* under a different name and within a different theoretical framework (in this respect, that of the phoneme was a regressive invention).

A response to *fragility* was found in the concept of *reduction*,[22] which is ideologically transparent: something is reduced with respect to a complete, ideal model, also known as the canonical model, which is obviously not a reduction. The phenomena of spoken language came to be explained as a sort of decline, thereby preserving the model.[23]

The question of *non-segmentability*, or rather of the frequent impossibility of drawing clear lines between phonemes, and hence between syllables and words (Albano Leoni 2015b), has simply been ignored and has never been addressed as a problematic feature of the theory of phonemes, if not possibly in relation to articulatory phonology, which pays greater attention to co-articulation.[24]

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21 The history of this key category in 20th-century linguistics is explored by Albano Leoni 2014, 67–137.

22 The concept of 'reduction' was defined slightly later, when scholars started systematically examining natural speech: according to the detailed investigation by Cangemi/Niebura 2018, the term began to sporadically crop up in the 1960s and then spread like wildfire from the 1990s onwards; today, reduction is the focus of several specialist journals. Of course, the term – or analogous ones – already appeared in studies on Indo-European linguistics published in the 19th century, where it was used to indicate the *reduced grade*, or *grade zero*, in apophonic alternations; but this was a more confined and slightly different use of the term.

23 Jakobson and Halle provide a particularly clear formulation: "since in various circumstances the distinctive load of the phonemes is actually reduced for the listener, the speaker, in his turn, is relieved of executing all the sound distinctions in his message: the number of effaced features, omitted phonemes, and simplified sequences may be considerable in a blurred and rapid style of speaking [...]. The slurred fashion of pronunciation is but an abbreviated derivative of the explicit clear-speech form which carries the highest amount of information" (Jakobson/Halle 1956, p. 6). No different is Lindblom 1990's view, which ultimately rests on the concept of reduction and hence, implicitly, on the assumption of an ideal, hypostatised language. Whether we call it *explicit clear-speech form* or *hyperspeech* does not make much difference.

24 It is worth noting the effort it takes to read a text in *scriptio continua*, even when it is written in a language one knows well. As we shall see later on, this provides an informal yet significant

3.2 Linguistic and Paralinguistic, Segmental and Suprasegmental

While phonology somehow seemed to have solved the question of the variability of signifiers, the question of the variability of meanings emerged – or, rather, became more visible.

Indeed, given the focus on spoken language and *les langues vivantes*, it became increasingly difficult to ignore expressive phenomena. These began to be noted by unprejudiced observers who acknowledged their importance,[25] but proved difficult to describe through the discrete categories of linguistics. What's more, they were steeped in subjectivity, *parole* and *performance*, which few linguists were keen on at the time.

Linguistics was thus forced to come up with a defensive remedy on the level of signification as well, and it did so by resorting to a concept, or rather an antinomy: *internal linguistics vs external linguistics*. This operation was initially performed by significantly hardening the distinction originally drawn by Saussure between internal and external linguistics (Saussure 1967, 31–34 and notes)[26] and then by juxtaposing it with another popular antinomy, *linguistic vs paralinguistic*.[27]

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indication of the extra work that listeners must do compared to readers, since spoken language is precisely continuous.

25 When publishing letters by Italian prisoners of war, Spitzer 1921, 4 recalled how in spoken texts one could find not only the popular dimension of language, but also theoretically significant linguistic traits: Vygotskij 1990 (= 1934), 365–372 offers some enlightening pages on spoken language, dialogue, and particularly prosody and its power; the most famous example among linguists is the case – reported by Jakobson 1960, 187 – of an actor from the Stanislavski Theatre in Moscow, who executed the Russian sequence *segodnja večerom*, "this evening", with fifty-odd different linguistic shades, all of which were recognisable to the public. Besides, Jakobson was preceded in this by Balzac, who – as Enrica Galazzi (Galazzi 1997, 158) notes – in *Petites misères de la vie conjugale* listed 29 different ways of saying the word *friend*.

26 In these pages Saussure notes that *external linguistics* – the importance of which he does not at all wish to deny – refers to what has to do with the relationship between linguistics and ethnology, language and political history, language and institutions, and language and the geographical extension of languages and dialects – i.e. nothing even vaguely reminiscent of the relationship between *linguistics* and what we now call *paralinguistics*.

27 The term *paralinguistic*, coined by Trager (1958), was introduced in Italy by Eco and Volli in 1970 when they chose *Paralinguistica e cinesica* as the title of the volume of proceedings from a major conference which they were translating, and which Sebeok and others had published under the less challenging title *Approaches to Semiotic*s (1964). A broad overview of so-called paralinguistic phenomena may be found in Poyatos 1993.

It is noteworthy that the term *paralinguistic* had been used by Sebeok with a broader meaning than that assigned to it by Trager, and in a markedly positive sense, to illustrate the complexity and richness of what we would today call multimodal semiotic processes. It was used *ad includendum* to encourage linguists to take these processes into account. By contrast, the term paralinguistic and the concept it refers to were largely used *ad excludendum*, i.e. to leave expressive power, particularly that of prosody and gestures, outside the field of linguistic analysis. I believe that this development is partly due not merely to a widespread mistrust of interior phenomena, but also to the fact that, whereas in the case of the description of so-called *linguistic* phenomena well-established conceptual and terminological tools had been available for centuries, in the case of the non-impressionistic description of so-called *paralinguistic* phenomena (i.e. the perceived world, emotions, moods, modal attitudes, etc.) linguists lacked – and to some extent still lack – equivalent analytical tools. In other words, this power was ignored because it was difficult to trace it back to the compositional order of linguistics based on discrete categories.

Moreover, a perfect counterpart to the *linguistic/paralinguistic* dichotomy was found in the equally dichotomous pair of terms *segmental/suprasegmental* in phonology, introduced by Firth in 1948 – where the suprasegmental coincides with prosody. From this perspective, the primary feature of language would be the linear succession of discrete elements, segments, or phonemes, each of which has its own oppositional properties, which from Jakobson/Halle 1956 onwards have been represented as a binary matrix of universal traits. Prosody would be superimposed upon this string.

The correlation between these two dichotomous pairs lies in the fact that, according to the current perspective, almost all expressions of the suprasegmental pertain to the paralinguistic sphere.[28]

Be that as it may, Martinet 1962, 63 gave concrete shape to this widespread impression that everything which is irreducible to the double articulation in question falls outside of linguistics. A (prejudiced) view thus came to be expressed that was already clearly implied by the logocentric way of seeing things common to many linguists: language came to be interpreted as a system independent both from the speakers and from the world, and was conceived of either as an ontologised and transcendental structure (in conventional structuralism), or as an innate competence of the ideal speaker (in generativism). A hierarchy thus became established that ranked linguistic and segmental elements first,

28 Prosody is acknowledged to serve a linguistic function in certain languages, such as Italian, where it is the sole factor determining whether an enunciation is interrogative or affirmative.

and the core of enunciations and paralinguistic and suprasegmental elements second.[29]

I believe that this is an unfounded hierarchy, which in no way represents the actual relations between phenomena. If anything, the latter would require us to turn this hierarchy on its head by ranking suprasegmental and paralinguistic elements first and segmental and linguistic ones second, for reasons that I can only here briefly recall.

The claim that the suprasegmental precedes the segmental is true from a phylogenetic perspective because the anatomical changes which have led to the development of laryngeal mechanisms (which produce sound) are more ancient than those which led to the formation of the supralaryngeal tract, which – with the tongue, teeth, and lips – generates articulation. These changes are also shared by primates and other mammals (Lenneberg 1967, 2, II; 3, II-V). But the claim in question is also true from an ontogenetic perspective: newborns produce and perceive prosody before they are able to formulate any segments (Mehler/Dupoux 2002); furthermore, we are capable of producing prosody without any segments, for example by humming a tune, whereas every string of segments necessarily occurs within a prosodic setting no matter how flat this may be. Therefore, the hierarchy we are dealing with really ought to be inverted (besides, even according to Aristotle φωνή can exist without διάλεκτος, which is to say the articulated voice, which instead cannot exist without φωνή: Lo Piparo 2003, 153 – 160).

Likewise, as far as the linguistic/paralinguistic pair is concerned, it is well-known that, on the ontogenetic level, the expression of emotions, feelings, moods, intentions, and needs precedes by a great deal the production of clearly-formed predicative clauses or merely denotative ones, such as *the cat is a domestic animal*; and it is reasonable to assume that this is also true on the phylogenetic level. Indeed, it would be difficult to deny that pure denotation, just like pure lexical meanings, is the outcome of a process of abstraction of the metalinguistic sort, since for real speakers in real situations every enunciation al-

29 For example, Fónagy 1983, 13 – 23 and *passim*, one of the most insightful scholars of the phenomenology of the voice, has supported the thesis of a codification of signals based on two distinct channels. He goes so far as to regard stylistic messages as parasitical and subordinate to linguistic ones, according to a perspective that assumes the primacy of the referential function (21). In his view, segmental information is primary (14), suprasegmental information secondary (19 ff.). Léon, a great master in the field of phonostylistics, writes (Léon 1993, 5): "nous percevons mieux un éclat de colère ou de joie mais probablement sans pouvoir analyser ce qui s'est passé exactement pour transformer un message ordinaire en émission émotive". This formulation implies that we first have the *message ordinaire*, and then transformation comes into play.

ways occurs *hic et nunc*, and is thus steeped in subjectivity, intentionality, and contextuality. Every natural enunciation, then, is chiefly connotative, and its realisation is bound to also involve so-called paralinguistic instruments, which is to say those which contribute to making the semiotic resources of languages inexhaustible.

4 *Unde exoriar?*

The answer to this question comes from a plain and simple statement by Benveniste:

> Avant toute chose, le langage signifie, tel est son caractère primordial, sa vocation originelle qui transcende et explique toutes les fonctions qu'il assure dans le milieu humain. Quelles sont ces fonctions? [...] pour les résumer d'un mot, je dirais que, bien avant de servir à communiquer, le langage sert à *vivre*. (Benveniste 1967, 217).

This view (but see also De Mauro 1965 and De Mauro 1982) is of crucial importance. If we accept it, it means that the first question which a linguist ought to raise with regard to an enunciation (be it a spoken, written, or signed one) is ultimately the same question a naive speaker will pose: "What is the meaning of what I have heard (or read, or seen)?". Only at a subsequent stage, possibly immediately afterwards, can other crucial questions be raised: "How and by what linguistic and/or extralinguistic means does it signify this?"; "How was what I have heard produced? What are its sounds? What and how many are its words? What are the morphosyntactic markers? Etc.".

What is required, then, is a transition from the primacy of form – which characterises much of the linguistics literature of the past two centuries, and which was already denounced by Bréal (in De Palo 2001, 27–28, 77–119) and by De Mauro 1968 – to the primacy of substance. The necessary process of generalisation and transition to other levels of analysis will occur at a subsequent stage, starting from these achievements.

But if we concur that the primary (or perhaps sole) purpose of language is to signify, and that meaning cannot be expunged from linguistic analysis (De Mauro 1968), the theoretical framework changes considerably, and suprasegmental elements become an integral part of language, as they *signify* or contribute to the construction of meaning just as much as phonic or graphic strings.

Here I would like to present a simple example, out of the many possible ones, which illustrates how the path leading to the acquisition of meaning is

not always a linear one that revolves entirely around the deciphering of phonic signifiers.

When I say to a friend "You're really clever!", I might mean either that he really is clever, or that he is not clever at all. These are two different meanings, and hence two different enunciations. This difference is expressed by subtle variations in the prosody and possibly in facial expressions, and is grasped by the listener not merely through these clues, but also on the basis of his expectations and previous knowledge. But this example also reveals the fallaciousness of the illusion that linguistics must only study what falls within double articulation. Clearly, irony does not, and yet it expresses a distinct meaning from that of non-ironic enunciations. The difference in question can be measured by the fact that whereas in spoken language there is no need to add anything to this statement, which would usually be understood, by contrast if the dialogue were to be put in written form, it would be necessary to add a clarification ("he said in an ironic voice").[30]

5 Conclusions

The conclusion which my reflections suggest is a very simple one. Orality and spoken language are the domain of *parole*, in which both the speaker who acts and the linguist who interprets the words need some anchoring points to a far greater degree than someone producing or observing written language.

The first anchoring point is provided by the world, understood both as the sum of all knowledge and general experiences shared by the members of a community, which is to say as a form of life, and as the particular knowledge shared by the people involved in a communicative exchange.

The second anchoring point is found in the speaker/listener. As already noted, every real enunciation is bound to occur within a space defined by the points of reference *I*, *here*, and *now* in which the subjects find themselves.

The third anchoring point is offered today by the linguistics of corpora. Spoken language varies considerably at all levels, from the phonic to the pragmatic; therefore, like all variable phenomena, each of its manifestations must be evaluated in terms of the probability of its occurrence. This is the same parameter used both by human listeners, when they are evaluating what they have per-

30 An analogous case is that of theatrical texts. On the one hand, we have a written text, directions of the author (when present), and notes from the director; on the other, we have the *mise en scène*, which is to say the event as it is produced by the actors and perceived by the spectators, which requires no directions.

ceived and must interpret, and by automatic systems designed to provide orthographic corrections or translations, as well as by linguists who wish to evaluate what they are observing.

What we are dealing with is only apparently an empirical question. Indeed, if the linguistics of *parole* were limited to the first two anchoring points, it might seem to amount – and in a sense actually would amount – to the impressionistic analysis of a mass of individual events which are always different. But through corpora and wide-scale observations, it is possible to avoid this risk. The probability that a given event might occur is a reflection of the concrete practices of the multitude of speakers and includes both variation as one of its intrinsic features, and correlations with other variables (including extralinguistic ones). An individual event – the unrepeatable act of producing *parole* – endures as the foundational element in human linguistic acts, but it can now be evaluated in a way that is not merely subjective. We thus return, as indeed we must, to *langue*; but it is not a static, categorical, self-referential, and innate *langue* of the sort we find in traditional descriptions, but rather a dynamic one: not a succession of calculable algorithms, but a sum of tendencies to be interpreted and correlated.

And this is no small difference.

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Olga Capirci and Chiara Bonsignori

Beyond Orality: The Case of Sign Languages

Abstract: The present paper reviews the main approaches developed for the linguistic analysis of sign languages, discussing the different theoretical assumptions and methodological implications applied along with the history of sign language studies. Sign language research demanded a revolution in some core beliefs of language, namely the linearity of speech, discreteness, and arbitrariness, providing a new way to look at the nature of language.

Keywords: Sign language; iconicity; simultaneity, signs transcription and annotation.

1 Introduction

Nowadays, according to the Glottologue website https://glottolog.org, there are more than 140 sign languages signed by deaf and hearing people all over the world. Sign languages do not have a traditional written form, and there is a considerable lack of linguistic resources for them (such as vocabularies, corpora, automatic recognition, and synthesis systems, etc.). Therefore, sign languages are a very special type of non-written languages, spoken silently.

For a long time, Sign Languages were addressed only for educational purposes, ignored by linguists, and considered as a minor form of gestural communication similar to pantomimes.[1]

In 1960, linguists still considered as true language only speech and as such characterized by the vocal-auditory channel, arbitrariness, and discreteness. These properties are listed in the famous 13 design-features proposed by Hockett in his paper *The Origin of Speech* and defined as shared by all the languages of the world. However, in the same year, William Stokoe published *Sign Language Structure* and finally framed American Sign Language (ASL) in the linguistic domain, proving that the vocal-auditory channel, the first design feature, was not

1 The misconception of linguists does not mean that sign language has been ignored in the past centuries. On the contrary, the interest in sign languages has been linked to the debate of the origin of language since Plato. From then on, many philosophers as Vico, Condillac and Diderot mentioned the gestural language of deaf in their reflection on the nature of language, for a proper discussion on these issues see Kendon 2002, Pennisi 1994 and Sacks 1989.

https://doi.org/10.1515/9783110751987-006

so essential at the end. Stokoe claimed that signs have structural properties comparable to those of vocal languages showing that Sign languages are highly abstract, rule-governed, combinatorial linguistic systems and must thus be recognized as fully developed natural human languages.

Sign Language Structure described ASL as a true language, giving rise to the spread of sign language research in Europe, supported by the organization of three international symposia in 1979, 1981, and 1983 (Ahlgren/Bergman 1980; Stokoe/Volterra 1985). Nevertheless, the initial aim of sign language research was stressing the similarity between spoken and signed languages dividing down signs into smaller elements to prove sign language had phonology and morphology, and studying the rules for assembling signs to produce a sentence to prove the existence of a signed syntax.

Signs can be analyzed, breaking them up into four formational parameters: the handshape, namely the configuration of the hand; the movement; the place of sign articulation; and the palm orientation.

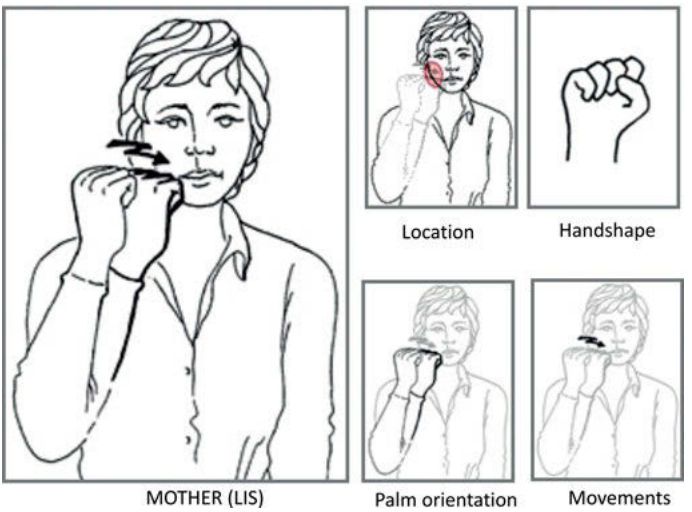

Fig. 1: The four parameters of LIS sign's MOTHER.
(c) The original figure has been conceptualized by the first author of the paper and used in an educational webpage by ISTC (currently not active).

The need to prove that signs were natural languages leads linguists to enhance the property they share with words, adopting analytic tools created for the study of written form of spoken languages, and building up a barrier between signs and gestures.

The main distinction between spoken and signed languages is the different usage of articulators: in the first case, the leading one is the vocal trait, while in the other the entire body encodes phonology, lexicon, and grammar. The use of visible articulators, instead of audible, allows signers to load of linguistic value the three-dimensional space in which signs are produced, a unique feature of sign languages not shared by speech.

This is not the only peculiar trait of using another modality: sign languages can display several blocks of linguistic content at the same time, encoding different pieces of information using simultaneously different articulators. Moreover, the use of the visual modality and bodily articulators prompts a pervasive use of iconicity, used as a source of language creativity to a greater extent than spoken languages. These peculiar properties could not be included in a framework that looked at human language as an arbitrary and linear system.

Although from the beginning some scholars such as Klima/Bellugi 1979, Schlesinger/Namir 1978 and Karlsson 1984 paid attention to aspects such as the use of space, iconicity, and simultaneity, the majority of sign language linguists tried to analyze signs by forcing ASL and other signed languages into molds that were created for studying spoken languages, or, to be precise, Indo-European written languages (Slobin 2008).

Even though in the last years there has been an increasing interest in iconicity, simultaneously organized signed structures and non-manual components in sign language, the persisting mainstream approach imposes severe limits to the advancement of Sign language research.

In the present paper, we will show how instead Sign Language Studies provide a unique opportunity to revise certain assumptions on the nature of language.

2 Putting Signs into Boxes Made for Words: the Assimilationist Approach

At the beginning of the reflection on language Aristotele identified the articulation and the combinatorial properties of sound and words as the main features of human language (De Mauro 2002, Lo Piparo 2003). Therefore, the assumption that language consists of discrete elements has been entrenched in the history of language science, starting with the ancient Greeks.

During the 20th century, linguists built their models starting from discrete elements belonging to discrete categories, governed by combinatorial rules. Following this approach, any sort of expression in sign languages that cannot be

analyzed in discrete, categorical terms is defined as gestural. The structuralist approach relies on discrete units to provide a listable linguistic description, like dictionaries, or phonological and morphological inventories. This view forced signs and words to fit in a picture that has been drawn to describe written languages whose limitations have been shown for spoken and signed languages (Albano Leoni 2009; Bybee 2010; Volterra *et al.* 2019).

As Slobin 2008 noticed, sign language linguists look similar to European colonists when encountered exotic languages in the course of building their colonial empires and tried to describe these languages using categories that they were familiar with, using linguistic tools based on the classical grammars of Greek and Latin. To give another example of the assimilationist approach, the author reports this striking analogy taken from his friend Wolfgang Klein, a German linguist who works on Chinese, fighting against the tendency to apply familiar linguistic classes to an unfamiliar language. Klein jokes about the fact that Germans know that every cuisine includes potatoes, so it is no surprise to find that Chinese cuisine also relies on small, grained potatoes: "rice can be made to fit into the category of potatoes – but only if you ignore everything else that you know about rice" (Slobin 2008, 121).

Sign Languages have been and still are addressed using vocal language tools: linguistic theory, categories, and terminology based on vocal languages. More precisely, linguists adopted the theoretical assumptions learned from the study of a single group of spoken languages, the Indo-European family.

Recently, Goldin-Meadow/Brentari 2017, in a target article, proposed a comparison between gestures and language tracing a clear dichotomy between what is discrete, countable, and categorical (language) and what instead is gradient, uncountable and vague (gestures). Following this view, as well as spoken languages have co-speech gestures, sign languages have co-signed gestures, a category including all the gradient and motivating elements excluded from the proper linguistic system. As pointed out by Occhino/Wilcox 2017, this dichotomy is too simplistic to describe both gestures and languages.

For too long academics considered only a small portion of signs as linguistic, while excluding, relegating into the darkness of non-linguistic and gestural domain about 80% of signed phenomena, as non-manual components, iconic or deictic constructions. Following the principle of discreteness, linguists even go as far as not considering "linguistic" some of the formational parameters of signs: location and movement of the signs are hard to list, and less countable compared to handshape. For this reason, even among the parameters, the only one who is given a clear linguistic status is the handshape, while the others, in particular the movement, are sometimes considered as gestural elements (Goldin-Meadow/Brentari 2017). As pointed out by McNeil "we tend to consider

linguistic what we can write down and gestures everything else" (McNeill 1985, 351).

This approach has been reinforced by the spread of a notation system that labels signs with the respective spoken translator written in capital letters and inappropriately defined as "glosses".

Researchers have often used glosses, especially for studies of sign language grammatical structure, the problem is that this system catches only partially the meaning and, more importantly, covers the signed form completely; hence no form-meaning patterns are described. Due to an unavoidable lack of consistency in the choice of translators, it is hard to recover the original sign from possible lexical variants.

The spread of glossing among Sign Language Studies led and still leads to inappropriate segmentation, inappropriate labelling, inappropriate analysis, and description of signed structures. On top of that, glossing may drive the linguist to transfer the word's properties to the signs.

Would any field linguist working on an unknown spoken language ever try to represent the form-meaning patterns of this unknown language using for this purpose primarily or only the words of his own language (e. g. English)?

Slobin 2008 sharply explains the misleading role of glossing using the example of the ASL sign usually glossed as INVITE, a sign in which the signer moves the flat hand with the palm up with a movement forward himself. As reported by the author, the sign has been included in a category called by Padden 1988 "backward verbs" since the movement is forward the signer, namely from the supposed object of the action, the person that has been invited, to the supposed subject, the person that invites. These types of verbs are said "backward" because the direction of movement is the opposite of the expected one. Generally, the movement agrees with the semantics, and it is therefore (in its citation form) from the signer, the subject, forward the object, placed in the space in front of the signer. This reasoning makes sense in the framework of the English sentence "I invite you". Nevertheless, if the linguist considers the verb as meaning something like "please, you come to me" or "I offer that you come to me" then the movement path would be appropriate: the addressee is encouraged to come to the signer (Slobin 2008, 124).

Glosses help the linguist to find English-like categories on sign language data, covering the form of signs and misinterpreting their meaning. This notation system not only masks the signed form but leaves out all the key aspects involved in the articulations, as spatial and non-manual features, that are not represented.

There is still a lack of consensus on a format to describe sign languages in a written form, many writing systems have been developed, but none of them has

reached critical mass, because it is challenging to capture the three dimensions of a visual language in a paper. In its work of 1960, Stokoe proposed a linear notation system specifically devoted to sign annotation. This type of writing is based on the discrete analysis of sublexical components of signs, linearly arranging them, reducing in sequence what comes simultaneously in signs.

Following this approach, we have specialist 'notation' systems which apparently 'work' for de-contextualized single signs as reported in sign language dictionaries, all based on the first description proposed by Stokoe 1960: the Hamburg Notation System (Prillwitz *et al.* 1989), a graphical formalism based on a set of pictograms, or Sign Font (Newkirk 1989).

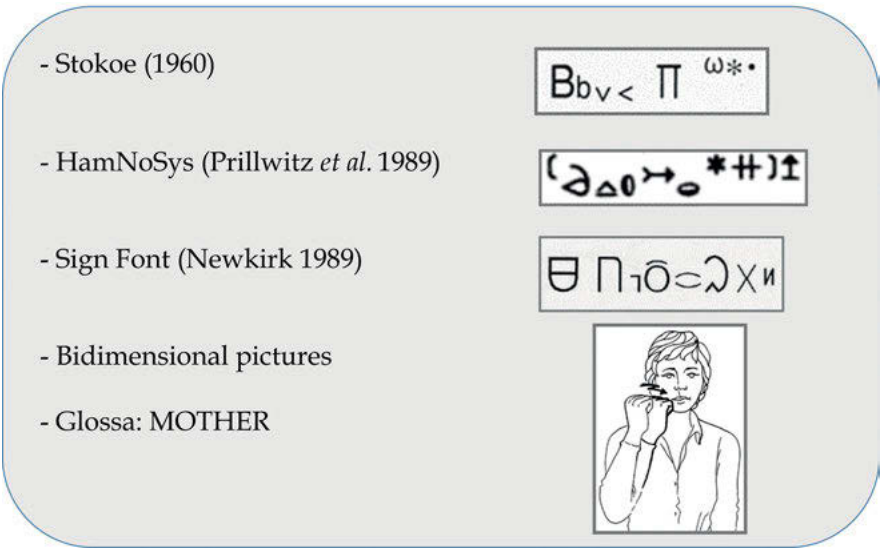

Fig. 2: Notation Systems.
(c) The original figure has been created by the first author of the paper (inspired by the work of Elena Pizzuto).

Is it by chance that in most cases this kind of notation is accompanied by pictures and illustrations? Antinoro Pizzuto *et al.* 2006 highlight four main limitations of all the notation systems based on Stokoe's 1960: first of all, these systems are based primarily on the hand's features, dismissing the relevance of non-manual components; secondly, they represent the constituents of signs in an artificial linear way; thirdly, according to the authors, they rarely success to completely represent a real signed utterance or discourse, and are easier applied

to de-contextualized signs; finally, they are rooted in the assumption that signs are words-like elements.

Nowadays, the most spread formalization is SiGML (Hanke 2004), which is a digital representation of the Hamburg Notation System (HamNoSys). HamNoSys (Prillwitz *et al.* 1989) is a simplification of sign language, designed to give humans a way to write sign languages with pen and paper, as a consequence, also SiGML is an oversimplification of sign language, describing sentences as a sequence of glosses. Only within the glosses' boundaries, there is a parallelization between manual (hands, fingers) and non-manual features (eyes, lips, nodding, etc).

Only in 2006, Huenerfauth introduced the partition-constitution approach, showing the importance of describing the motion of the two hands independently, and the need to span non-manual components across signs. His approach is however still limited, as it focuses on the description of the motor-level of the signer's body, without considering the many elements that have been already recognized and classified by linguists in the description of sign language utterances, such as their strong iconic aspects.

Languages should not be analyzed by bending them to an already pre-packaged analysis system, if anything it is the description system that has to bend to the language. Signs cannot be wrapped in a description made for spoken languages, but how represent forms in order to allow an acceptable degree of variation? How take into account simultaneity and iconicity?

3 Unboxing Signs: the Non-Assimilationist Perspective

Cuxac proposed in 1985 a radically different model to study sign languages, highlighting the crucial role of iconicity in shaping sign language semiotic (Cuxac 1985, Cuxac 2000, Cuxac 2004). While verbal and signed languages are both characterized by iconic features at every level of their structure, signed languages exploit iconic devices to a greater extent due to the peculiar features of the linguistic community they are used by. According to the model, sign languages are grounded upon the semiotic resources signers exploit to iconize their perceptual/practical experience of the physical world. One of the effects of this iconization process is to endow sign language with an additional semiotic dimension compared to vocal language. The model proposes that sign languages have two ways of signifying: by "telling without showing", using units that are broadly comparable to vocal language words and by "telling and showing", thereby pro-

ducing complex structures that can be characterized as "Transfers" or "Highly Iconic Structures" (HIS) and are unique of the signed modality.

A most relevant feature of HIS is that they can be combined among themselves, or with lexical units, to encode information on two (or even more) referents in a multilinear, simultaneous manner that has no parallel in speech. Gaze patterns play a key role in distinguishing the two ways of signifying: when producing the lexical units and therefore in the "telling" mode the signer's gaze is oriented towards the addressee, in contrast, when producing HIS generally the signer's gaze is away from the addressee, iconically mirroring the gaze of the referent whose actions are being referred. Generally, head movement, body posture and facial expression clearly differ from those used in producing the lexical units (Cuxac 2004; Antinoro Pizzuto *et al.* 2010).

The high frequency of HIS in sign language productions of different kinds (e.g. narratives, reports, cooking recipes, poetry) has been well documented in studies of LSF, and LIS (Cuxac 2004; Sallandre 2006; Antinoro Pizzuto 2009; Russo *et al.* 2001; Russo 2004a).

Antinoro Pizzuto *et al.* (2008) investigated ASL, LIS, and LSF in elicited narratives[2] pointing out the great relevance of HIS in the construction of discourse cohesion. In fact, the results show that HIS constitute the favourite constructions to carry out an anaphoric reference, covering in each narrative from 76% to as much as 95% of the reference to animate and inanimate referents. Iconic features resulted to have a structural role in signed discourse.

Comparable data have been reported on different sign languages using diverse terminology and methodologies, showing the relevance of iconic constructions as depicting constructions or constructed actions (Cormier *et al.* 2015; Liddell 2003; Schembri 2003, Tomasuolo *et al.* 2020, among others). For example, Slonimska *et al.* 2021 found a remarkable amount of iconic constructions in an experiment where the task of the LIS signer participants is to describe images to make the matcher choose the right one. If constructed action were just a tool available to the signers to render their stories more entertaining and vivid, it would be strange that they resort to this strategy when having to be concise, but yet as informative as possible, in a description task. This finding is a strong argument for reconsidering constructed action as a linguistic strategy that allows high flexibility and simultaneity of information encoding, and, as a result, is used in informative and not simply narrative contexts.

2 The LIS and ASL narratives were elicited through "Frog where are you?" (Mayer 1969) and the LSF narratives were elicited through "The Horse" story (Hickmann 2003).

As sharply noted by Antinoro Pizzuto *et al.* 2010, if we reckon with the evidence of the high frequency of iconicity in signed discourses, it should be taken for granted that a proper description of any sign language should take into account iconic structures. Moreover, iconic structures cannot be diminished "as "gestural", "non-linguistic" or "partially linguistic" elements simply because it is difficult to assimilate them to what is considered "typical" vocal languages structures (e. g. to putatively "more abstract", "word-like" elements, ordered primarily in linear sequences)" (Antinoro Pizzuto *et al.* 2010, 219).

The Semiological Model proposed by Cuxac shows similarity with the approach that has been recently proposed by Ferrara/Halvorsen 2018 and Ferrara/Hodge 2018. The authors, referring to Clark's 1996 theory of language, look at signed and spoken languages as having three modes of representation: describing, indicating, and depicting. The authors point out that the three different ways to use languages proposed by Clark are handy tools to analyze sign language discourse and face to face communication, in which different semiotic practices can be mixed or used simultaneously.

Volterra *et al.* 2019 provided another elegant example of how this semiotic model can be productively applied to sign language, integrating the insight of Clark 1996 within a sociolinguistic and cognitive framework to the study of Italian Sign language (LIS). The authors conceive the recent contribution as a new description that overcame the assimilationist perspective of the first description of LIS (Volterra 1987).

Interestingly, while Cuxac's model describes "showing" as an additional semiotic mode of sign languages, insisting on the inherent productivity of the visual gestural modality; Ferrara/Halvorsen 2018, Ferrara/Hodge 2018, as well as Volterra *et al.* 2019, refer to Clark 1996 and conclude that even spoken language can vividly depict, once you look at language as a multimodal system and take the semiotic functions of gesture seriously.

Particularly relevant in the Volterra *et al.* 2019 approach, for the present discussion, is the continuity from gestures and signs, seen from a developmental perspective as routed in motor action. As proved by many pieces of research in language acquisition, review clearly by Volterra *et al.* 2018, both hearing children and deaf children acquiring a spoken or a signed language display a strong continuity from action to gesture to signs/words. The use of iconic representational strategies, common in gestures and signs, in the LIS description, shows that the idea of the formational parameters as meaningless elements to combine into meaningful units is most of the time misleading.

Moreover, the authors focus on all the components of signs showing a high degree of gradience, as the non-manual component, dismissed by the previous LIS description. In this perspective, neither the channel of transmission nor the

gradience of some elements have to stop the linguist from looking closely at them and recognizing their essential linguistic functions, as, for example, in the analysis of the oral component in LIS based on Roccaforte 2018.

Once established that the visual and gestural modality can perfectly serve the need of the faculty of language, it is crucial to not underestimate the medium of linguistic expression. The material properties of speech force words to be displayed sequentially, while signs (and gestures!) can be used simultaneously. A signer can, for example, depict a boy holding a dog that is liking his check using all its bodily articulators at the same time, to use an example taken from an actually signed occurrence described in Antinoro Pizzuto *et al.* 2008 (fig. 3). In order to encode these two simultaneously occurring events, the speaker would need a long sentence, presenting the two events sequentially. In sign languages, however, the signer can become the boy by mapping him into his own body, using his torso and eye gaze to depict the boy. The boy's holding action is encoded on the left hand. The dog is marked by the facial expression of the signer, and the licking action is encoded on the right hand and mouth of the signer.

Fig. 3: A signer encoding two simultaneously occurring events.
(c) The original figure has been recreated for demonstration purposes. See the original in Pizzuto *et al.* 2006, 483.

Recently, the use of such iconic simultaneous constructions has been shown to increase with the increase of informative demands, indicating that simultaneity can be used to achieve communicative efficiency, by Slominska *et al.* 2020. They explored whether and how signers vary the amount of simultaneously available information in a systematic and controlled, but yet ecologically valid way. In the study's design, the density of the messages that have to be encoded by deaf particpants has been altered in order to assess whether an increase in density would also increase the amount of simultaneity used. The results of the study show that Italian Sign Language (LIS) signers constructed their utterances in such a way that, as information got denser, the number and the density of their simultaneous constructions proportionally increased.

The change of perspective in sign language linguistics goes hand in hand with the development of new approaches in the language science: cognitive linguistics, cognitive grammar, and usage-based approach lead the way to redraw the boundaries of spoken and signed languages.

Cognitive linguists are giving an important contribution to the field of sign language studies, building new models starting from sign language data and enhancing the peculiarities of signs to broaden our perspective on language.

Initially, Wilcox 2004 redefined the notion of iconicity based on a cognitive grammar framework, in which both grammar and lexicon are described as symbolic structures, as pairings of form (the phonological pole) and meaning (the semantic pole). The two poles lie in our conceptual space and thus iconicity is "a relation between the form of a sign and what it refers to in the real world, but as a relation between two conceptual spaces. Cognitive iconicity is a distance relation between the phonological and semantic poles of symbolic structures" (Wilcox 2004, 122).

The notion applied to both signed and spoken languages but, in the author's words, "sign languages, by using articulators that visibly manifest the same grounded archetypes that underlie our conceptual abilities – objects moving in space within our field of vision – differ from spoken languages in that they have an enhanced potential for realizing these iconic mappings" (Wilcox 2004, 141). In this sense, the notion of cognitive iconicity relies on an embodied perspective: we experience and understand our world towards our body and language reflects these interactions.[3]

On this note, also usage-based approaches analyze language looking at domain-general cognitive processes, like schematization, categorization, and en-

3 For a recent discussion on conceptualization of space in sign language using tools of cognitive grammar see Martinez/Wilcox 2017 and Wilcox/Occhino 2016.

trenchment, as emerging from the interaction with the world. Usage-events themselves are produced by the body, and their motoric features play a role in the form-meaning mapping process in both spoken and signed language.

Following the usage-based approach and the insight from the concept of cognitive iconicity, Occhino 2017 addressed the distribution of handshapes in two different sign languages and outlined a new framework she called "embodied phonology" to investigate both language-internal and external sources of motivation that led to the form-meaning mappings.

One of the core assumptions of the usage-based approach is to see linguistic structure as emergent from the repeated application of underlying processes, rather than given by combinatorial rules, and that is why language has to be seen as a gradient system (Bybee 2010).

Considering the distorted perspective that the linguist's need for discreteness imposed to sign languages, leading to inaccuracies and mistakes, is it clear why usage-based approaches are very promising for the sign language field. In this respect, Lepic/Occhino 2018 explain how the usage-based framework could help to overcome the focus on discrete and listable elements considering language in terms of constructions, conventional patterns of meaning and form containing both fixed elements and variable slots and organized in a structured network. The authors analyzed different morphological constructions in ASL, and an English spoken discourse as multimodal events (gestures and speech) and gradient structures did not pose any obstacles to the analysis. In fact, the assumption of their approach is that: "all linguistic constructions show gradient structure, and highly schematic constructions are emergent generalizations extracted by language users through their experiences with language. Under a usage-based approach, gradient structure is not gesture: it is grammar." (Lepic/Occhino 2018, 166).

To complete a trustworthy usage-based analysis, looking at frequency and linguistic data in contest is essential to have at linguist's disposal a robust corpus. Unfortunately, sign language corpora represent an emerging practice in sign language research. Most sign language corpora are currently in progress: these are primarily large datasets consisting of spontaneous and elicited signing that has been annotated (Fenlon *et al.* 2015). Nevertheless, it should be at least mentioned the ongoing project for documenting German Sign Language (DGS) (Prillwitz *et al.* 2008), collecting data from a wide variety of users and contexts; the British Sign Language Corpus (https://bslcorpusproject.org/projects/); and the Australian Sign Language Corpus.

A modern corpus should cover different linguistic registers to be representative of real language usage and has to be in a machine-readable form. Therefore, the lack of a recognized transcription system and time-aligned video annotation

software slowed down the creation of corpora at the very beginning of sign language research (Crasborn *et al.* 2008; Fenlon *et al.* 2015).

Luckily, technology has proven to be extremely helpful for sign language research introducing annotation software suitable for video and sign language analysis. The most used multimedia annotation software program in the field of signed linguistics is ELAN (Max Planck Institute for Psycholinguistics Language Archiving Technology Group, 2009). ELAN allows to create, edit and explore annotations for video data, it is possible to overlap annotations on the same signed chunk, on different tiers according to the levels of analysis.

The use of new annotation technologies does not, however, dismiss the transcription problem. Fenlon *et al.* 2015 report that the most used practice among signed corpus in the use of "ID gloss", referring to the practice of using one unique identifying gloss for each sign, one along with all its phonological and morphological variants. The authors compare the ID gloss with the concept of lemma and lemmatization, but it should be noticed that in the case of sign language the citation form is given in another language (a spoken one!), a significant difference.

Fenlon *et al.* 2015 point out that the practice of using ID glossing is supposed to be consistent along with the corpora and annotators, the translations in the spoken language are linked to the ID gloss in separate tiers.

However, there is another way to avoid the use of glosses and translations: namely to directly write signs using SignWriting, a "movement-writing-alphabet" which uses visual symbols to represent the handshapes, movements, and facial expressions of signed languages (https://www.signwriting.org/). SignWriting is based on Sutton Dance Writing, a notation system for representing dance movements that Valerie Sutton developed in 1972 and is designed to write any sign language (Sutton 1999; Di Renzo *et al.* 2011).

Pizzuto *et al.* 2006, Di Renzo *et al.* 2006, and, more recently, Volterra *et al.* 2019 experimented the use of SignWriting on LIS, as a tool for both composing LIS texts directly in written form and transcribing signed face to face dataset. Pizzuto *et al.* 2008 explain how the research activity of the Italian team has been developed with the direct involvement of experienced Italian deaf signers and that SignWriting has proven to be an effective tool, and easy to use, for representing the form-meaning patterns of the language.

It has taken several decades to overcome the initial biases that influenced the first sign language research. We briefly examined the semiotic models proposed firstly by Cuxac, the cognitive linguistic theories, that provide the analytical tools to discover what is unique about signed languages, and then the usage-based approaches, which view the constructions of language as built-up and abstracted from experience (Bybee 2010; Langacker 1987 and Langacker 2008). Fi-

nally, we saw how the use of a new framework on sign language analysis required the development of new linguistic tools, as corpora and signwriting.

4 Unboxing Language: Lessons from Sign Language Research

Sign languages provide us with a way to expand our knowledge to all human language, through a revision of what were believed to be the basic tenets about language, not merely the spoken modality, but the arbitrariness, the categorical nature, and the linearity.

The tendency towards categorizing is a product of researchers' needs and originates from an alphabet-based culture that influences our idea of the linguistic environment irreversibly. On the contrary, we saw how sign language studies demand the revision of the dichotomy between linguistic (categorical, invariable, arbitrary) and para-linguistic (gradient, variable, iconic) primarily, improving the development of a new approach to language as a form of action.

The prejudice of sign studies against iconicity is rooted in the assumptions that iconicity and arbitrariness are opposite, and they cannot coexist in the language system, purely arbitrary.

In the sign language literature, it is often mentioned Saussure as the modern theoretician of this notion. As the fundamental work of De Mauro demonstrated (De Mauro 1967), this is a misinterpretation based on the diffusion of the *Saussurean vulgate* that failed to report the deeper meaning of the Saussurean notion of arbitrariness (see Russo 2004b for a detailed discussion of this notion and sign language studies).

In the words of Pietrandrea/Russo 2007, 52:

> how can highly iconic language phenomena coexist with the formal and structural needs of a linguistic system? We claim that the iconic phenomena in signed languages, as well as those in verbal languages, are not just an incidental feature of the surface form of signs. Indeed the coexistence of iconicity and arbitrariness must lie at the heart of the complex interplay between the formal requirements of the linguistic system and the pragmatic constraints which guide the interpretation of a linguistic utterance. On the one hand, each particular linguistic unit responds to certain formal requirements at the phonological, morphological and syntactic level (rules for the combination of single units in a meaningful proposition included). On the other hand, textual and situational context always add additional information to the interpretation of the linguistic units.

Dingemanse 2018 in his elegant review of studies on ideophones in vocal languages, invites us to reflect on some critical questions in linguistics that could find answers if we tried to widen the boundaries of language:

> here I argue that this narrative of marginalisation, though historically justified [...], has outlived its usefulness: it risks obscuring insights from a rich history of research and stands in the way of progress on key questions in linguistics. How does form link to meaning? What are the limits of language? How do subsystems in language relate to each other? How does language ideology shape linguistic inquiry? (Dingemanse 2018, 1).

We believe that the study of sign languages offers a significant contribution to answering these questions, teaching us at least three valuable lessons:

1. *Iconicity is deeply arbitrary, and Symbols grow from Icons*. Iconicity and arbitrariness are not opposite semantic properties, they coexist in verbal and signed languages, even if they play different roles in the structures of the linguistic system (Perniss *et al*. 2010).
2. The linguistic sign is *underspecified, deformable, not systematically discrete and categories are fuzzy, placed in a dynamic flux, negotiable and context-dependent*. The semantic vagueness of linguistic units makes it possible that these can be interpreted in context and can change meaning and form (De Mauro 1982 and De Mauro 1991). Signs and words (with gestures, ideophones, prosody) can be used both as descriptions and depictions, and we should look at usage events as objects to place somewhere on a continuum between these two semiotic strategies instead of separating them into two distinct categories.
3. *Language is embedded in use as a form of action*. Being a linguist does not necessarily mean to set the boundaries of what is linguistic and what is para-linguistic. Language Science should describe how people use language as an act of communication and comprehension, paying attention to all the multimodal aspects of communication. If we follow this approach, as Kendon suggests, "*languaging, or doing language*, would become the object of study" (Kendon 2014, 13).

If we really tried to follow Slobin 2008 and Kendon 2014 advice, and begin with a description of language use as a form of action, trying to observe and describe the linguistic phenomena for what they are, spoken or signed, we will succeed to unbox the nature of language and start exploring it in its full complexity.

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Epic and Ethology: The 'Saddleback Model'. An Analogical Model for the Study of Archaic Greek Epic

Abstract: The ethological behaviour of the saddleback (*Philesturnus carunculatus rufusater*) demonstrates not only how a song tradition can be constructed and modified, but also how meaningful its functional role can be from a social and cultural point of view. Since such a song tradition is completely oral, it offers stimulating analogies with ancient Greek epics, analogies that can be positively used to rethink and reassess old philological questions.

Keywords: Ancient Greek epics; Homer; orality; ethology; song-traditions.

Introduction

The oral nature of the archaic Greek epic tradition has been demonstrated by M. Parry's studies and, subsequently, by ethnographic comparisons with other oral traditions. Nevertheless, every so often this notion continues to be called into question and at times even entirely rejected by scholars.[1]

In recent years, we have witnessed – as a far from negligible research area – the reformulation of interpretations of archaic Greek epic (chiefly the Homeric poems) as a unitary phenomenon based on writing, ultimately suggesting that the introduction of writing in Greek-speaking areas is closely connected with the written recording, if not composition, of the Homeric poems.[2]

1 I wish to thank all the participants in the discussions of the present essay during its various oral presentations, particularly Manuela Giordano, Laura Lulli, Riccardo Palmisciano, and Livio Sbardella. I am especially grateful to Chiara Bozzone and Elizabeth Minchin for reading the manuscript and offering positive feedback and usefull suggestions. Clearly, I claim sole responsibility for the argument presented in this essay.

2 It seems to me that this tendency has been reinforced at least since van Wees 2002 (which largely draws upon van Wees 1999, arguing that the Homeric poems were probably laid down in writing shortly before 650 BC). A detailed overview falls beyond the scope of the present essay: among the most recent contributions in this direction, I will refer – *exempli gratia* – to Teodorsson 2006 and Lucarini 2019 (with his assumptions about writing clearly laid out on pp. 2–3). As far as Hesiod is concerned, for an overview of critical approaches, see Ercolani/Sbardella 2016, 12–14. Different opinions and perspectives on problems related to the opposition

 https://doi.org/10.1515/9783110751987-007

Many of the contributions questioning the oral nature of archaic Greek epic display a markedly mediated – and at times narrowly bookish – notion of orality: the fact of having no direct experience of oral production and of the communication mechanisms associated with it has inevitably entailed a failure to fully appreciate the importance of studies on orality.[3]

Once again confirming my oralist view, I here wish to draw attention to an ethological element which may serve as an interpretative model (and which I will be presenting as such) to illustrate, clarify, or at any rate rethink certain mechanisms related to: 1. the oral transmission of epic texts (both horizontal and vertical, which is to say both synchronic and diachronic); 2. the tension between conservation and innovation (in terms of themes, formulas, and language) to be found in epic texts and, more generally, in the oral epic tradition.

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between orality and writing – an opposition sometimes understood in dialectical terms – may be found in the *Mnemosyne* supplements brought together in the series *Orality and Literacy in the Ancient World*, of which 13 volumes have been published so far (the most recent one is Beck 2021): I found particularly stimulating the volumes edited by E. Minchin (Minchin 2011) and R. Scodel (Scodel 2014). On the question of orality in contemperacy Homeric studies see also the contribution of Giordano in the present volume, 167–197.

3 Precisely on account of the evidence provided by studies on orality (a vast amount of comparative material is offered by *Oral Tradition*, http://journal.oraltradition.org/, specifically in volume 18 [1–2] of 2003; see also Foley 2005, 196–212 [*Analogues: Modern Oral Epics*, again by J. M. Foley]), I believe that the burden of proof falls on the champions of literacy, i.e. of the idea that epic poems were first produced in written form. I will not delve into the debate here: for some pertinent and compelling arguments in support of orality, I refer to Ercolani 2006, 63–70 (overview and up-to-date bibliography on the orality of the Homeric poems in Finkelberg 2011, *s.v.* "Anthropology", *praesertim sub* (1) [W. G. Thalmann]; extensive information can also be found in Foley 2005). Major comparative developments, confirming the correctness of the oral scenario as a context for understanding the composition of archaic Greek poetry, are now provided by the study of the methods of composition used for the music genre of hip hop: after the pioneering work by Pihel 1996, a fundamental text is Gainsford 2010. His formulations on p. 7 offer an excellent summary of the whole issue, framed in highly reasonable terms: "for the earliest phases of the Greek epic tradition, appropriate modern Western comparisons include improvised and semi-improvised performance genres like: rap and hip-hop music, especially freestyling; classical jazz; and sermons given by American folk preachers. The similarities do not lie in the content (though even in content, there is more common ground between the *Iliad* and gangster rap than meets the eye). They lie in the roles played by *improvisation* and by a communal, inherited *tradition of tropes* that govern performance". I should emphasise that the similarities also extend to the strictly cognitive function of narration, which is common to all the above-mentioned forms of communication accompanied by texts: narration is a social and educational practice that enables and aids processes of recollection, insofar as it is a major means of sharing collective experiences (from learning to history and entertainment; with regard to archaic Greek epic, see Ercolani 2006, 71ff.).

The model in question is drawn from ethology,[4] and is intended to serve as an analogical model – nothing less, nothing more.

1 The Case of the Saddleback

In an article published in *Animal Behaviour* in 1978, P. F. Jenkins[5] documented the "cultural" behaviour of a New Zealand bird, the saddleback.[6] This bird lives according to a rigid social structure: pairs are very long-lasting ("the pair-bond is very strong and usually it is life-long") and sedentary, meaning that saddlebacks live within a territory which they control and delimit through their song ("their 'territories' were apparently the product of mutual avoidance

4 It is worth recalling the fact that some cognitive systems of man, as a biological being, are embedded in his genetic code; and it is also worth recalling that animal species share a considerable genetic heritage. To put it in different and simpler terms: some adaptation mechanisms have been codified and transmitted through DNA and, generally speaking, can be regarded as being interspecific; this would appear to include some (if not all) processes of learning and information transmission (see nn. 5 and 15 below). I like to recall that the observation of animal behaviour lies at the basis of the anarchist ethics of P. A. Kropotkin, who – significantly – was also a zoologist (see e. g. Kropotkin 2011, 52, 236; more specific observations in Kropotkin 1890a and Kropotkin 1890b).

5 As far as I was able to ascertain, Jenkins' results and observation have not only been confirmed by numerous later studies, but similar studies have shown that this cultural behaviour is also common to other animal species, including both birds and mammals (I should note that Jenkins 1978 is one of the starting points for the definition and development of the theory of "memes" put forward by Dawkins 1992, 198 ff.). The following bibliography on birds, limited as it may be, suffices to show that this field of study is a consolidated one: in addition to the pioneering work by Marler/Tamura 1964, see Petrinovich/Patterson 1981, Grießmann/Naguib 2002, Nordby *et al.* 2002 (stability of song repertoires), Merker 2005, Baker 2006, Mennill/Rogers 2006, Kiefer *et al.* 2010, and Danner *et al.* 2011. A critical discussion of the "social learning" of forms of vocalisation associated with cultural systems may be found in Bluff *et al.* 2010. For a discussion of many of the aspects related to birdsong, and which I can only mention here, see *Annals of the New York Academy of Sciences*, vol. 1016, 2004: *Behavioral Neurobiology of Birdsong*. The research conducted in relation to mammals (see n. 15 below) goes in a similar direction (here the imitative factor of sight seems to prevail over the acoustic/auditive one, but at least in the case of primates the hypothesis is emerging that certain cultural factors also entail a linguistic form of learning: e. g. Crockford *et al.* 2004). For an overview, see Galef 2012 (pointing to the similarity between animal and human "social learning"). On animal learning by imitation, see Byrne 2009; on "social learning" among primates, an extensive survey in Whiten/van de Waal 2018 (review article).

6 This is a passerine from the *Callaeidae* family (its scientific name is *Philesturnus carunculatus rufusater*). In the Māori language, it is known as *tieke* (on onomatopoeic name based on one of its calls: *ti-e-ke-ke-ke-ke*).

behaviour mediated by very loud song"). This bird produces two kinds of song: loud and quiet. The loud sort is characterised by powerful vocalisations and may in turn be divided into two types or subgroups: chatter song and male rhythmical song (MRS). The latter kind of song is what interests us here (I will be quoting extensive excerpts from the original study because they no doubt provide a better picture than my paraphrase would; I am assigning progressive numbers to the passages quoted in order to be able to refer to them more easily and swiftly later on).

> [from p. 53]
> 1. The male rhythmical song [...] is used exclusively by site-attached pair-bonded adult males. Each bird sang from one to four patterns.
> 2. This song is typically, but not invariably, divisible into two parts, (a) an 'introductory phrase' [...] (b) a 'repeated phrase' which is sung from three to seven times.
> 3. This repeated phrase is often complex and is delivered in a very stereotyped pattern and, for any one bird, with a characteristic and unvarying pause between successive notes and phrases. The whole performance conveyed an impression of carefully contrived and rehearsed rhythmical pattern, contrasting markedly with the stop-start and erratic delivery of the chatter song.
> 4. M.(ale) R.(hythmical) S.(ong) patterns were not distributed randomly. Indeed each song pattern was restricted to a small group of birds, ranging from two to eight. [...] the song patterns sung by individual birds were in general constant, both in number of patterns and in form. With a few very rare exceptions a given song pattern was not heard from birds outside the particular song group.
> 5. [...] the sets (i.e. of songs) overlapped to a small extent in the region where they abutted, the birds in the region of overlap singing both song types.[7]
>
> [from p. 56]
> 6. After a detailed illustration of 'song pattern groups' and their distribution, the author points to what might constitute an exception that proves the rule. Only one bird [...] regularly sang a song that did not fit into the surrounding song groups. After the first season[8] it shifted into a different song group and modified its song pattern accordingly.
> 7. The 'song group' is the set of birds singing a particular song pattern and [...] where two song groups abut, birds on either side of the meeting line often sing both songs.
> 8. Towards the end of the first season an entirely new song pattern NE[9] occurred in the centre of the study area and spread to three other birds. In the following three seasons this song spread through approximately half the study area. The acquisition of NE song was not confined to young birds settling in the area but was also learnt by long established birds whose repertoires had been previously been thought to be stabilized.

7 Of the 28 male individuals studies, 12 used two MRS patterns, 16 just one.

8 The reference here is to the research campaign of 1970 – 1971.

9 The various song patterns (of the MRS sort) are marked by a group of letters, which in the article is associated with a descriptive sonogram (see Jenkins 1978, 54 – 55). The new song under discussion here is marked by the letters NE.

[from pp. 60 – 61]
9. During the 4 years of the study many birds died and were replaced by young ones, yet the song groups showed striking persistence both in space and time. Young birds establishing a new territory or replacing a bird in an old territory usually developed songs that were consistent with the existing song group pattern.

[from p. 61]
10. Only one case was observed of a bird shifting after it had already bred once. This male rebonded about 400 m away from its original territory in the centre of a different song group. It modified its song to match its new set of neighbours and abandoned its other two song patterns.

[from p. 63]
11. One of the larger song group was the PH. From year to year the PH song was acquired by young recruits with no important variations until 1974 when two important variants were observed on the fringe of the group, in poor quality habitat. The variations consisted of the elision of certain notes, [...] but the identity of the song type was obvious from the rhythm and from counter-singing against nearest PH neighbours.
12. The variants [...] may be regarded as arising from errors in imitation, whereas 'hybrid' songs[10] resulted from the incorporation of parts of the song of two neighbours into one song. This can likewise provide the basis for a new song tradition.

[from p. 65]
13. (A saddleback specimen, A-GB) sang an incomplete version of the SR song type in which it repeatedly elided the last two notes during the whole of the 1971 to 72 season. [...] By January 1972 (specimen) A-GB was hesitantly including the terminal two notes but the timing was not the same. [...] However, by November 1972 A-GB had achieved a very precise match between its SR song and those of the older birds.
14. Many examples of young males singing imperfect versions of well-known songs were recorded. Usually they achieved perfect versions over a period of days or weeks.

[from p. 66]
15. Thus it seems clear that the birds which colonized Cuvier Island brought with them at least five of the nine song patterns [...].
16. I had shown (i) that song groups existed with one or two of the original colonists in each and, (ii) that there was a strong tendency for new recruits to conform to the group's song pattern, but that (iii) variant forms did occur leading sometimes to the formations of a new song tradition.

[from p. 69]
17. (Discussing the father/child relationship in connection to song, the author shows that the context is what determines what songs are learned and reproduced). The observations

10 Examples of hybrid songs are illustrated in detail on pp. 63 – 65. One instance of VPH/PH hybrid song is noted in relation to quote no. 11.

show clearly that irrespective of the parental song young males when settling to breed perpetuate very exactly the existing dialect systems.[11]

[from p. 75]
18. Irrespective of whether the recruits intercalated between established pairs [...] or whether they re-bonded with widowed females [...], the songs they developed were consonant with the existing dialect system.

[from p. 76]
19. I found no evidence at all that saddlebacks mimicked the songs of other species so the predisposition to learn only the species specific songs which has been observed in other species where song learning is important [...] occurs also in this species.[12]
20. (Cultural mutations, i.e. the genesis of song variations:). New song forms have been shown to arise variously by change of pitch of a note, repetition of a note, the elision of notes, and the combination of parts of other existing songs.

2 Ethology, Cultural Transmission, and Archaic Greek Epic

The case just described, which is not unique when it comes to bird species,[13] is a genuine example of cultural transmission, which is to say of the passing down of a cultural fact from one individual to another, both horizontally and vertically, not in a way that is mechanical or automatic (i.e. not via the information provided by a genetic code),[14] but rather according to a specific cultural context (nos. 17–18 are especially revealing in this respect). The transmission in question occurs via modes of functional learning, use, and reuse of song in response to an environmental stimulus, which in this case is socio-cultural.[15]

11 Jenkins discusses the presence of MRS 'dialects' and their areas of diffusion on pp. 70–73. The current definition of a dialect is a particular kind of song performed by a species spread in a given geographical area; it is comparable to the linguistic definition of dialect, from which it indeed derives. The notion is used in many of the works mentioned (see n. 5 above); see also the definition provided in MacDougall-Shackleton/MacDougall-Shackleton 2001.

12 This serves a specific adaptation function, ensuring greater possibilities in terms of mating, hence of reproduction, therefore of conservation of the species (p. 76). But this is only of marginal relevance to the argument developed here.

13 See n. 5 above.

14 To clarify this further: what is controlled by genetics is the cognitive system enabling the birds to learn song, not song in itself. For variations in birdsong in relation to both cultural and genetic evolutionary phenomena, see Podos/Warren 2007.

15 The existence of "cultural behaviours" among non-human animals, including social learning and its horizontal and vertical transmission, has been proven by the conspicuous amount of evidence collected in ethological studies: see Aplin 2019 (birds); Perry/Manson 2003 (monkeys);

The processes noted in relation to the saddleback can, in my view, provide a good interpretative model of the analytical sort which, when applied to archaic Greek epic, enables us to clearly explain a range of features related to cultural transmission: what I have in mind is precisely the 'saddleback model'.[16]

One first, clear and obvious, consideration is that writing in no way constitutes the *conditio sine qua non* for the development and transmission of a cultural message: the saddleback does not practice writing and yet is capable of learning, executing, and transmitting a cultural message, which actually takes the form of a repertoire (a more or less large one, depending on the individual or group). Given that the same holds true for songs (i. e. formalised and rhythmically developed texts) within many traditional societies, as ethnographic studies confirm, the only truly necessary and sufficient condition – let me stress this: the only necessary and sufficient condition – to define archaic Greek epic production is the system of oral communication.[17]

Whiten *et al.* 1999, Boesch 2003, Whiten *et al.* 2007, Gruber *et al.* 2015 (chimpanzees and wild chimpanzees); Leca *et al.* 2016, and van de Waal 2018 (primates) – but the list could go on. On the issue of "culture" among animals, see Fragaszy 2003, Laland/Hoppitt 2003, and Laland 2008. In some cases, we even seem to find a kind of figure specialising in teaching: see Csibra 2007 (revealingly entitled *Teachers in the Wild*). The question as to whether animal learning is cumulative or not (i. e. whether "cumulative cultural evolution" is unique to man) remains open: see e. g. Price *et al.* 2010, Mesoudi/Thornton 2018, and Schofield *et al.* 2018.

16 The analogies I am highlighting do not exhaust the diagnostic potential of the 'saddleback model': they are simply the analogies I have been able to detect. Others may assess the data differently and combine them with different outcomes.

17 The objection that, both quantitatively and qualitatively, the saddleback's repertoire cannot be compared, say, to the *Iliad* and *Odyssey*, is quite flimsy. The saddleback's rhythmic song has a high level of formal elaboration, as is proven by the contrast with the bird's ordinary song. The evident volumetric (and hence functional) inequality between the saddleback's brain and the human brain is sufficient to account for the presumed quantitative gap (to get a very vague idea – based on underestimation – of the amount of data which the human brain is capable of storing, see, for example, Dudai 2011 and Namaziandost/Ziafar 2020, 69 – 70). The idea of inferring from animal behaviour models applicable to human cultural phenomena, at least as diagnostic terms of comparison, does not strike me as far-fetched, particularly considering the fact that, in cognitive terms, it seems possible to establish different connections: an overview of "cognitive ethology" may be found in Ristau 2013. A (well-argued and persuasive, if hypothetical) reconstruction that emphasises the similarity, if not identity, between human cognitive systems for sound (and hence language) recognition and those found among animals (especially birds) was already provided by Marler 1976. For a comparison between human and animal brain systems (again exclusively in relation to the linguistic sphere), see Snowdon 1990 and especially Jarvis 2004 (who suggests a parallel development of the capacity for vocal learning in man and in some bird species, starting from a pre-existent and genetically controlled neural network in the brain of vertebrates). From a different perspective, interesting comparisons can be

A second, equally clear yet not as obvious consideration is that a structure that is formalised,[18] in terms of rhythm and music, has a remarkable capacity to act on / activate certain cognitive systems among both animals (as shown by the saddleback case – see nos. 1–4 – and plenty of other similar case studies) and humans:[19] the fact that epic is a metrically organised textual form with a musical accompaniment (even a very basic one) confirms its cognitive and communicative impact, pointing out its status as a 'cultural text'.

In what follows, I will offer a number of more detailed considerations.

a. The kind of song which Jenkins examines in the study I have been discussing, namely MRS, is a highly formalised kind of song which is culturally marked and socially functional (it is a prerogative of male birds who have found a mate; the opposition between different songs delimits a pair's area of habitation and hence of resource exploitation: the song is socially functional, which is why it is transmitted/learned):[20] see nos. 1–3, 9–10. The same holds true for archaic Greek epic, whose nature as a 'cultural text' (serving various functions, in social terms) is well-known (suffice it here to record the notion of "tribal encyclopaedia" put forward by Havelock 2003, 126 [see also 49 and 105 ff.]).

b. The diffusion of a particular repertoire, with specific formal features and a delimited geographical area – as may be inferred from the 'saddleback model', which points to the creation of genuine 'cultural' areas (see nos. 2, 11, 27) – immediately recalls, as though through a Pavlovian response, the cultural areas in which archaic Greek culture appears to have been fragmented and organised, and within which independent epic traditions circulated.[21]

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found in Marler/Peters 1982. Some important works drawing upon ethological data to explain the behaviours and ritual codes of ancient Greek culture are Burkert 1987 and Giordano 1999.

18 On the level of formalisation of the song of some passerines belonging to the *Poecile* genus, see also Hailman *et al*. 1987.

19 This point, which has been widely argued and various upheld, finds confirmation in recent studies: see especially what emerges from Bhide *et al*. 2013 (with further bibliography). The development of rhythmic and musical abilities enables the improvement of phonological, graphological, and reading abilities. In other words, rhythm and music are fundamental cognitive factors capable of coming into play and operating even where the instruments normally employed prove largely ineffective: "this small-scale intervention study suggests that a theoretically-driven musical intervention based on rhythm and on linking metrical structure in music and language can have benefits for the development of literacy and phonological awareness" (Bhide *et al*. 2013, 120). This strikes me as a fundamental element suggesting that it is the vocal and auditory systems, which is to say oral ones, that are capable of reinforcing 'literacy' (which would thus appear to be secondary and derivative even from a cognitive point of view).

20 It would also appear to be functional to pair formation and especially to the re-forming of pairs in the case of widowed birds: see Jenkins 1978, 76.

21 Consider epichoric epic traditions: Cerri 2002, Lulli 2014 (with further bibliography).

c. The areas of contact and overlap between the various groups of songbirds emerge as sensitive areas, where a broadening of the traditional repertoire occurs – at least in terms of the acquisition of a double repertoire (see nos. 4 and 5 – for a comparison – and 7), as well as innovations, which may be seen as the potential foundations of a future song tradition (see nos. 11–12). Precisely with reference to contact areas, the 'saddleback model' could fruitfully be applied to archaic Greek epic, in order to rethink both questions pertaining to language (such as, for instance, the mingling of different dialects in the Homeric *Kunstsprache*) and issues related to the existence of multiple epic traditions (the overlap between Homeric and Hesiodean diction and formulas, to mention only one long-standing question).[22] This hypothesis is not entirely new *in Homericis*, but in the case of the saddleback it is not a hypothesis at all, since the processes just described can actually be seen at work and observed in their concrete functioning.

d. The 'saddleback model' is also a fruitful one to reconstruct phenomena related to the spread of a song tradition: in the areas within which a song group ('dialect') occurs, *de facto* only one MRS is practised (the tradition is unique and homogeneous, so to speak), whereas in border areas some singers partake in the repertoire of both groups; hence, it is reasonable to assume (although Jenkins does not provide any information with regard to this point) that as an area belonging to one song group extends to the detriment of another, thereby shifting the contact area elsewhere (i. e. along a new borderline), the former contact area – now encompassed within the new and broader song area – will become increasingly uniform over time. In any case, what is certain is that in areas marked by overlaps, the number of 'shared songs' increases: traditions are brought together and combined[23] – see Jenkins 1978, 60, Table II, presenting specimens that partake in two song traditions, and 60–61, Figs. 8–11, with a comparison illustrating the (usually incremental) evolution of the overlap

22 The "overlap area" featuring the phenomena just noted can actually be traced back to the "wave of advance" model developed in processual archaeology to explain phenomena of cultural convergence (this model has also been applied to the "Indo-European question" in linguistics): after Ammerman/Cavalli Sforza 1979, see especially Renfrew 1989 (*passim*; specifically for a definition of the "wave of advance" model, see 143 ff., 175). Despite the criticism it has received, and later attempts to refine it, the model essentially seems to hold water: see e. g. Rowley-Conwy 2011 ("lurches of advance" in place of "wave of advance"). Equally striking analogies may be found with the linguistic continuum model applied to Greek dialectology in order to explain overlaps, convergences, and (phonetic, morphological, and lexical) isoglosses: Finkelberg 1994.

23 Incidentally, this fully and precisely coincides with known models of cultural transmission: whereas vertical (diachronic) ones are usually conservative in nature, horizontal (synchronic) ones allow for and favour innovations. For an initial overview, see Cavalli Sforza 2004.

of different songs in contact areas over the course of the years in which the study was conducted.

e. The phenomena reflecting innovation in saddlebacks' traditional song patterns exemplify the mechanisms of oral transmission. This entails a dialectical tension between conservation and innovation, of the sort we find in the oral traditions we can examine, and which have also been extensively reconstructed in the case of archaic Greek epic, in a particularly evident way when it comes to language and formulas (consider, respectively, the phenomena of linguistic stratification and the alteration of formulas). Alongside 'fundamental' sequences of a conservative sort, which tend to be fixed, we now and then find addition elements that are functional to new contexts. As a result, innovation is produced via addition, subtraction, concretion, and occasional changes produced by mistake: see nos. 16 and 20.

3 Appendages and Connections

In what follows I provide a bare list of debated questions surrounding archaic Greek epic, with a reference to 'ethological' passages that may be of diagnostic significance and stimulate hypotheses and reassessments.

a. Formulaic/modular structure: nos. 1–3.
b. Definition of a song trajectory that imposes itself in and (functionally?) dominates a geographical area: nos. 4–11, 15, 18.
c. Learning and perfecting song via oral production and usage (i.e. according to the 'apprenticeship' model of traditional pedagogy): nos. 13–14, 19.
d. Exporting of one's song heritage/repertoire in the event of the colonisation of a new territory: no. 15.[24]

Appendix. How a Song Tradition is Born: The Ethological Model from the Saddleback to the *Megaptera novaeangliae*

Only after I had completed my study of saddlebacks was I informed[25] of a recent ethological work on humpback whale song, published by the "Royal Society" in 2019,[26] which bears interesting implications for issues surrounding archaic Greek epic.

24 Consider Hesiodic metanastic poetry: Martin 1992.
25 By Elena Maria Eusebi, a student from the University of Siena, whom I would like to thank.
26 Owen *et al.* 2019. For an overview, see the news report at the following link: https://www.facebook.com/tg3rai/videos/877051272694603/?v=877051272694603.

Very briefly, this is what we find: humpback whales meet each year to stage a genuine song festival, in which individuals take turn to listen and sing, following a traditional repertoire (that can be identified on a regional basis). This repertoire, however, can be modified precisely as a consequence of the festival, after listening to other whales' performances.

In this case too, I will quote the most relevant excerpts:

> 1. Male humpback whales (*Megaptera novaeangliae*) perform complex, culturally transmitted song displays that can change both evolutionarily (through accumulations of small changes) or revolutionarily (where a population rapidly adopts a novel song).
>
> 2. Three song types were identified in the song recordings from 52 singers collected at 6 wintering grounds [...]. Song type 1 was the dominant song in the central Pacific (the Cook Islands and French Polynesia), song type 2 was the most prevalent in the West (New Caledonia, Tonga and Niue) and song type 3 was only recorded in eastern Australia.[27]
>
> 3. This contact (= where migratory routes from multiple populations overlap) is likely to be a driver of horizontal transmission of song across the South Pacific. While convergence and transmission have been shown within a population during migration and on their wintering grounds [...], song exchange and convergence on a shared migratory route, and the location of such an event, remained elusive. [...] our results are consistent with the hypothesis of song learning on a shared migratory route, a mechanism that could drive the eastern transmission of song across the South Pacific.

It is worthy highlighting certain features shared by the 'saddleback model' and humpback whale song, features which can easily be extended to archaic Greek epic:

> 1. An absolutely oral communication context.
>
> 2. Socially relevant and functional singing (in the case of humpback whales, the singing is functional to courting, and hence is of primary importance, as success or failure with respect to it determine a whale's chance to mate).
>
> 3. Variation/increase of the traditional repertoire by listening to others' songs, memorising them, and reproducing them with some variations, thereby making it 'traditional' again, i.e. part of new individual repertoires; its insertion within a traditional repertoire.

This last point strikes me as highly relevant on account of its implications: it seems to me that this is precisely the mechanism or dynamic of interaction we should posit in the case of archaic Greek epic, as far as the constitution and broadening of a singing tradition is concerned (it makes no difference whether

27 The definition of the songs, singers, and tradition of reference by areas is based on standard analytical models (for the data, see Owen *et al.* 2019, table 1 and figs. 2–3).

we understand this as a regional tradition or one associated with a guild of rhapsodes): a synchronic interaction between singers that enables the circulation and redevelopment of stylistic features, formulas, and themes.

In order to understand the complexity of Greek epic diction, then, what we need is not just diachrony, but a kind of synchronic such as the one just described.

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Riccardo Palmisciano

To Speak Like a Bird: Beyond a Literary *Topos*

Abstract: The idea that poets can understand and imitate the birds' voice is much more than a literary *topos*. In this paper an anthropological approach and the theory of inconscious formulated by Ignacio Matte Blanco cast a new light on the ancient Greek sources that provide important evidence on the topic (Alcman, Hesiod and Aristotle *in primis*). Poets can understand the language of the birds because they are special gifted men, like seers and prophets. The interesting history of Wakdjûnkaga the trickster demonstrates that these *maîtres de verité* can experience in everyday life what was common to all human beings during the prehistoric Age.

Keywords: Alcman; poetics; trickster; Matte Blanco; theory of language.

Greek poetry from the Archaic period offers some examples of an image found in many other cultures: gifted men who can speak and understand the song of birds and other animals.[1] In particular, the poet's voice can be considered as a human version of the birds.[2]

The starting point of every investigation about this subject is a well-known fragment by Alcman, affected by many textual problems. We quote it as it is pre-

1 On folk tales and myths about people who can speak with animals, and in particular with birds, see Frazer 1931; Bettini 2018, 183 – 208; *MIFL* B216; B217. In the *Quran* (27:16) both Solomon and David claim to have been taught the language of the birds. According to the *midrashim* tradition, Solomon was able to understand birds and practice ornithomancy, see Shemesh 2018, 4 – 7. The motif is widespread in Norse mythology, too, where Odin usually speaks with the ravens Hugin and Munin. Furthermore, Sigurd learns the language of the birds when he accidentally tasted the blood of Fafnir the dragon (see Bettini 2018, 194 – 200). The knowledge of the language of birds can also be traced within the esoteric tradition: Sufism, Kabbalah, Renaissance magic, and alchemy.

2 Already in the Mycenean period we can find in Greece documents that associate poets/singers and birds: the pyxis from Kalami, now displayed in the Archaeological Museum of Khania (Crete), Mus. Khania, inv. 2308, that dates to LM III A2-B (1350 – 1200 BC; see Betancourt 2007, 190) and the fresco from the Throne hall of the Pylos' palace (LH III B2, 1250 – 1200 BC; see Lang 1969, 79 – 80; Immerwahr 1990, 133 – 134). In both images a singer/player is at direct contact with birds. In the Pylos' fresco a big bird seems to fly directly from the singer. Even in the vedic tradition, lines can be represented as flying birds, see Durante 1976, 124.

https://doi.org/10.1515/9783110751987-008

sented in the two most recent editions, which are very different as to their interpretation of the rare word γεγλωσσαμέναν at line two.[3]

Alcm. fr. 39 Davies
ϝέπη τάδε καὶ μέλος Ἀλκμάν
εὗρε γεγλωσσαμέναν
κακκαβίδων ὅπα συνθέμενος

Alcm. fr. 91 Calame
ἔπη δέ γε καὶ μέλος Ἀλκμάν
εὗρε †τε γλωσσαμενον†
κακκαβίδων ὅπα συνθέμενος

We have these lines thanks to the quotation by Athenaeus, who explains their meaning following the opinion of Chamaeleon about this poem:

Athen. 9, 390a (II 350 Kaibee)
σαφῶς ἐμφανίζων ὅτι παρὰ τῶν περδίκων ᾄδειν ἐμάνθανε [*scil.* Alcman]. διὸ καὶ Χαμαιλέων ὁ Ποντικὸς [fr. 24 Wehrli] ἔφη τὴν εὕρεσιν τῆς μουσικῆς τοῖς ἀρχαίοις ἐπινοηθῆναι ἀπὸ τῶν ἐν ταῖς ἐρημίαις ᾀδόντων ὀρνίθων· ὧν κατὰ μίμησιν λαβεῖν στάσιν τὴν μουσικήν. οὐ πάντες δ' οἱ πέρδικες, φησί, κακκαβίζουσιν.

According to Chamaeleon, who devoted specific attention to Alcman (cf. also fr. 25 Wehrli), the Greeks of the ancient times thought that men learned to sing by imitating the birds' songs they heard in the most isolated places.

More than a century before Chamaeleon, the philosopher Democritus stated that the men learned many important activities from the animals: for example, weaving and building. Singing is one of these activities. Men learned to sing by imitating birds.

Democrit. 68 B154 D.–K.
ὁ Δ. ἀποφαίνει μαθητὰς (*scil.* of the animals) ἐν τοῖς μεγίστοις γεγονότας ἡμᾶς [...] τῶν λιγυρῶν, κύκνου καὶ ἀηδόνος, ἐν ὠιδῇ κατὰ μίμησιν.

Democritus introduced the general idea that it was natural for men to imitate birds and other animals. Many years before the *Poetics* by Aristotle, the philo-

3 γεγλωσσαμέναν (or γεγλωσσαμένον) is the best correction of the γλωσσαμενον offered by the manuscripts (see Degani/Burzacchini 1977, 287; Brillante 1991, 155–157). Against this correction see the arguments by Calame 1983, commentary *ad* fr. 91. For the reasons I will show I consider the text with γεγλωσσαμέναν as more suitable to the general idea expressed in this poem.

sopher from Abdera seems to be well conscious that imitation is a natural cognitive process for men.[4]

Democritus' idea had a famous follower in the Latin literature, where we find very similar words in the *De rerum natura* by Lucretius:

> Lucr., *de rer. nat*. 5, 1379–1381
> *At liquidas avium voces imitarier ore*
> *ante fuit multo quam levia carmina cantu*
> *concelebrare homines possent aurisque iuvare*

In his anthropological survey about the development of humankind, Lucretius considers imitation of the sounds of nature, *in primis* birdsong, as the origin of the human language. The first men were able to sing like the birds even before they began to speak a human language and perform poems. The idea that songs and poems preceded the use of prosaic speech will be re-proposed by many philosophers who dealt with the origin of language, in particular during the debate on this topic that developed in the 18th century.[5]

Modern scholars have supported, with a variety of arguments, the idea that the Greeks considered poetic activity as a matter of imitation. Bruno Gentili has formulated a very clear definition of this fundamental conception:

> The actual activities of the poet – devising and constructing – are thus conceived as mimesis – the imitation of nature and human life. Conscious formulations of this idea appear as early as the fifth century, presenting imitation either as a re-creation, through voice, music, dance, and gesture, of the actions and utterances of men and animals – or, with more specific reference to the figurative arts, as the production of an inanimate, visible object that is a realistic replica of something living.[6]

It is hard to find a better example of this idea of poetry than that displayed by Pindar in the XII *Pythian ode:*

> Pind., *Pyth*. 12, 7–8
> Παλλὰς ἐφεῦρε (*scil*. the art of playing the *aulos*) θρασειᾶν <Γοργόνων>
> οὔλιον θρῆνον διαπλέξαισ' Ἀθάνα

4 Plato's position (*Resp*. 10, 595a-607a) recognizes the mimetic nature of poetry yet criticizes poetry as the superficial imitation of an object. Plato is very far from asserting that imitation is a universal cognitive process.

5 See Gozzano in this volume, 1–17.

6 Gentili 1988, 51, but see the whole chapter 4 *The Poetics of Mimesis* (whose penetrating arguments can be traced in Gentili 1971).

Pind., *Pyth.* 12, 19 – 21
[...] παρθένος αὐλῶν τεῦχε πάμφωνον μέλος,
ὄφρα τὸν Εὐρυάλας ἐκ καρπαλιμᾶν γενύων
χριμφθέντα σὺν ἔντεσι μιμήσαιτ' ἐρικλάγκταν γόον.

The goddess Athena invented the art of playing the *aulos* by imitating the shrill cries and noises uttered by the Gorgons and by the snakes they had for hair when Medusa's head was cut by Perseus. The object of this artistic imitation was the real lament of Euryale (γόος); its final artistic product was the *threnos*, that is, a gloomy music for an *aulos* solo quite similar to the funerary lament. The distinction between the object imitated and the result of the mimetic process is strongly underlined by the two different words that Pindar uses: γόος – θρῆνος.[7] Pindar seems to be aware of the difference between reality and its imitation. When a poem imitates something real, the imitation cannot be exactly the same thing as the imitated object. This general conception of poetry seems to be slightly different from Alcman's poem about partridges.

But if imitation is in general terms closely connected with poetic composition, the specific imitation of the birds' song seems to rely on more concrete reasons. Aristotle and his followers, among whom we must consider the aforementioned Chamaeleon, were deeply engaged in understanding why men and birds are so close as regards to linguistic skills. Aristotle was the first to propose an explanation based on anatomic similarities.

Arist., *Hist. An.* 4, 535a 27 – 535b 2
φωνὴ καὶ ψόφος ἕτερόν ἐστι, καὶ τρίτον διάλεκτος. φωνεῖ μὲν οὖν οὐδενὶ τῶν ἄλλων μορίων οὐδὲν πλὴν τῷ φάρυγγι· διὸ ὅσα μὴ ἔχει πλεύμονα, οὐδὲ φθέγγεται· διάλεκτος δ' ἡ τῆς φωνῆς ἐστι τῇ γλώττῃ διάρθρωσις. τὰ μὲν οὖν φωνήεντα ἡ φωνὴ καὶ ὁ λάρυγξ ἀφίησιν, τὰ δ' ἄφωνα ἡ (535b) γλῶττα καὶ τὰ χείλη· ἐξ ὧν ἡ διάλεκτός ἐστιν. διὸ ὅσα γλῶτταν μὴ ἔχει ἢ μὴ ἀπολελυμένην, οὐ διαλέγεται. ψοφεῖν δ' ἔστι καὶ ἄλλοις μορίοις.

Arist., *Hist. An.* 4, 536a 20 – 536b 2
τὸ δὲ τῶν ὀρνίθων γένος ἀφίησι φωνήν· καὶ μάλιστα ἔχει διάλεκτον ὅσοις ὑπάρχει ἡ γλῶττα πλατεῖα, καὶ ὅσα ἔχουσι τὴν γλῶτταν αὐτῶν λεπτήν. [...] τὰ δὲ ζῳοτόκα (536b) καὶ τετράποδα ζῷα ἄλλο ἄλλην φωνὴν ἀφίησι, διάλεκτον δ' οὐδὲν ἔχει, ἀλλ' ἴδιον τοῦτ' ἀνθρώπου ἐστίν· ὅσα μὲν γὰρ διάλεκτον ἔχει, καὶ φωνὴν ἔχει, ὅσα δὲ φωνήν, οὐ πάντα διάλεκτον.

Aristotle clearly distinguishes between noise (ψόφος), sound (φωνή) and language (διάλεκτος). The most complex skill, that is language, is the distinctive feature of human beings and of those birds that have a thin tongue. Only men and

7 For a more detailed analysis of this passage see Gentili 1995, *ad loc.* and Palmisciano 2017, 186 – 188.

birds are able to articulate sounds in order to produce a linguistic utterance, other animals can only produce sounds without meaning.[8]

According to the tradition discussed above, it could seem clear that Alcman provides the most ancient example of the idea that poetry was a mimetic activity and that the poets considered birds to be the most suitable object of imitation by reason of their affinity with human beings. However, this explanation is only partially correct.

When Alcman claims to be able to produce poetic words similar to birdsong, he aims to distinguish himself from ordinary people.[9] Everyone can try to imitate birds' song by singing or whistling, but true imitation of the birds' voice requires a particular skill.

If we scrutiny Alcman's words we find more than imitation. Alcman claims to be able to understand the birds' singing and to translate the partridges' song to a human voice, made of sound and meaning. We must not neglect the two keywords we find at the beginning of the fragment: ϝέπη [...] καὶ μέλος. Alcman has found not only the right music but also the right words. The partridge's song has a meaning and the poet is able to understand it. Whatever choice we make about the problematic †τε γλωσσαμενον† in line 2, it is hard to deny that the word recalls the domain of the γλῶσσα, not in its anatomic meaning but referring to human speech. The text as presented by Davies (and accepted by most scholars) restores a poem full of meaning and interesting implications. Two slightly different translations are possible:

> Alcman found these words and music, giving poetic form (συνθέμενος) to the partridges' voice, translated with human words.

Or with different interpretation of συνθέμενος:

> Alcman found these words and music, and after having understood the partridges' voice, he translated it with human words.[10]

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8 For an overall investigation of Aristotle's ideas on the relationships between human and other animals' language see Ax 1978; Labarrière 2007; Manetti 2011. Modern ethologists have reduced the distance between animals and men regarding linguistic skills: see Ercolani in this volume, 89–103.

9 See the interesting reflections by Bettini 2018, 121–125, in particular 125.

10 Among the meanings of the verb συντίθημι we find both "compose" (see LSJ s.v. II 3) and "give heed, perceive" (see LSJ s.v. B I). For a thorough study of this word see Brillante 1991, 153–154. The connection between ὅπα and γεγλωσσαμέναν is well explained by Gentili 1971, 62: "il nesso γεγλωσσαμέναν ὅπα συνθέμενος istituisce i modi concreti del poetare, esplicita programmaticamente *come* e per quale *via* (verbalizzando, cioè, la voce delle pernici) il poeta 'ha trovato' i due elementi compositivi del carme, la parola e la melodia".

Every effort to translate this fragment, however, can hardly reach the superb quality of the translation by the Italian poet Salvatore Quasimodo (*Lirici greci*, 1940):

> Questi versi e la loro cadenza
> trovò Alcmane, imitando con parole
> quello che aveva inteso
> dal canto delle pernici.

I have started with Alcman's fragment 39 because this poem offers the most detailed description of the complex relationship that the poet establishes with the voice of the birds. With this premise I hope it would be more clear the meaning of another well known fragment, in which Alcman claims to know the songs of every kind of bird:[11]

> Alcm. fr. 40 Davies = 140 Calame
> οἶδα δ' ὀρνίχων νόμως
> παντῶν

In this short fragment Alcman says nothing about how he acquired the special knowledge of which he boasts. The verb οἶδα at the beginning simply states that he possesses it. The word νόμως recalls the idea that the birds' song can be considered as a codified song. Alcman claims to know an uncountable amount of songs, corresponding to the endless variety of the melodies uttered by the singing birds.

The skill boasted by Alcman can be found elsewhere. Continuing the topic of poets' lives, a very singular, and mostly neglected, tradition about Homer's life tells that Homer was son of two Egyptians and that his nurse was a prophet, daughter of the priest of Isis. Once, honey flowed from her breast in Homer's mouth and the baby, during the night, uttered the voice of nine different birds. The nurse, then, found the baby playing with nine doves on his bed. One day, in a state of possession, she pronounced some prophetic lines in which she foresaw that the baby will be famous and that he will build a temple to the nine Pierides. For this reason Homer always respected birds.

> Eust. *in Od.* 12, 63 [1713, 17] = De Martino 1984, 140 – 141
> Ἀλέξανδρος δὲ ὁ Πάφιος ἱστορεῖ τὸν Ὅμηρον υἱὸν Αἰγυπτίων Δμασαγόρου [cf. *Cert. Hom. Hes.* 3, 21 = 758 *FGrHist* 13c Καλλικλῆς δὲ †Μασαγόραν] καὶ Αἴθρας, τροφὸν δὲ αὐτοῦ προ-

11 See *contra* Calame 1983, 548, who refers the "I" speaking in the poem to the performers of the chorus.

φῆτιν τινὰ θυγατέρα (20) Ὤρου, ἱερέως Ἴσιδος, ἧς ἐκ τῶν μαστῶν μέλι ῥεῦσαι ποτὲ εἰς τὸ στόμα τοῦ παιδίου. καὶ τὸ βρέφος ἐν νυκτὶ φωνὰς ἐννέα προέσθαι, χελιδόνος, ταῶνος, περιστερᾶς, κορώνης, πέρδικος, πορφυρίωνος, ψαρὸς, ἀηδόνος, καὶ κοττύφου· εὑρεθῆναί τε τὸ παιδίον μετὰ περιστερῶν ἐννέα παῖζον ἐπὶ τῆς κλίνης. εὐωχουμένην δὲ παρὰ τοῖς τοῦ παιδὸς τὴν Σιβύλλαν, ἐμμανῆ γεγονυῖαν, ἔπη σχεδιάσαι. ὧν ἀρχὴ, Δμασαγόρα πολύνικε, ἐν οἷς καὶ μεγακλεῆ καὶ στεφανίτην αὐτὸν προσειπεῖν, καὶ ναὸν κτίσαι κελεῦσαι ἐννέα Πιερίδων (25)· ἐδήλου δὲ τὰς Μούσας. τὸν δὲ καὶ τοῦτο ποιῆσαι, καὶ τῷ παιδὶ ἀνδρωθέντι ἐξειπεῖν τὸ πρᾶγμα. καὶ τὸν ποιητὴν οὕτω σεμνῦναι τὰ ζῷα οἷς βρέφος ὢν συνέπαιζε.

It seems noteworthy that the most distinct feature that defines the prodigious nature of the young Homer is precisely his skill in speaking the language of birds, and that even if this tradition is as old as that of the *Certamen Homeri et Hesiodi*,[12] the fact that the poets are able to speak like a bird goes back to a more ancient tradition. To be cautious, the tradition is at least as old as Alcman's poetry.

Poets' special relationship with the birds is a feature that connects them with other special people such as seers and prophets.[13] The birds' signs can be the subject of an archaic poem, as it is well displayed by the *Bird omens* (*Ornithomanteia*) assigned to Hesiod, a poem that was attached to the end of *Works and Days* in a specific branch of the Hesiodic tradition.[14] The final lines of *Works and Days* are a reminder of the importance of correctly interpreting the signs coming from the birds to live in the right way.

Hes., *Op*. 826 – 828
[...] ὄλβιος ὃς τάδε πάντα
εἰδῶς ἐργάζηται ἀναίτιος ἀθανάτοισιν,
ὄρνιθας κρίνων καὶ ὑπερβασίας ἀλεείνων

Hesiod was concerned with prophecy. Pausanias (9, 31, 5) says that Hesiod was taught about mantic art in Acharnania and that it was still possible to read the

12 See Bassino 2019, 115, who mentions the earlier sources (say, 5th century BC) of the materials included in the *Certamen*. See also p. 125, *ad* 21 for a commentary on Callicles' information about Homer's father.

13 In Soph., *Ant*. 1021, the seer Teiresias says that the birds' song is no more intelligible for him due to the *miasma* spread by Oedipus: οὐδ' ὄρνις εὐσήμους ἀπορροιβδεῖ βοάς. Porphirius recalls that the old prophets like Teiresias and Melampous were able to understand the language of the birds: Porph., *de abst*. 3, 6 εἰ δεῖ πιστεύειν τοῖς παλαιοῖς καὶ τοῖς ἐφ' ἡμῶν καὶ τῶν πατέρων γεγονόσιν, εἰσὶν οἳ λέγονται ἐπακοῦσαι καὶ σύνεσιν ἔχειν τῆς τῶν ζώων φθέγξεως· ὡς ἐπὶ μὲν τῶν παλαιῶν ὁ Μελάμπους καὶ ὁ Τειρεσίας καὶ οἱ τοιοῦτοι.

14 We do not have reasons to consider worthless the words of *schol*. Hes. *Op*. 828 a, 3 (p. 259 Pertusi) τούτοις δὲ ἐπάγουσί τινες τὴν Ὀρνιθομαντείαν <***>. See Ercolani 2010, 436 – 437 *ad loc*.

ἔπη μαντικά he composed. Another Hesiodic poem, the *Melampodia*, concerned the figure of the prophet Melampus. It is possible that the title *Explanation of prodigies* was another form of the title *Ornithomanteia*, but it is also possible that it was a different work.[15]

To summarize, the tradition of the poet as a wise man (or cultural hero) able to speak and understand the language of the birds and interpret the signs that birds expressed to men, confirms the general idea that the archaic poets, by reason of their exceptional qualities and their divine gifts, must be considered among the σοφοί, or, in the well-known definition by Marcel Detienne, as *mâitres de verité*.[16]

It is possible to go further still. It is very tempting to try to connect the idea that the poets know the language of the birds with views about the life of the most ancient men. As we have seen, the Greeks seem to be aware that in the most ancient times men (all men, not only the poets) learned to sing from the birds. The passages by Democritus, Chamaeleon, Lucretius quoted above can be considered an attempt to build a rational explanation of the process that led men to acquire the skill to sing and compose poems. But the boundaries between those rational ponderings and a mythical tale are not well established. Democritus' and Lucretius' theories cannot be proven. If we accept them, we take them as self-evident and not because they are founded on tested evidence. They are nothing but fascinating myths.

For these reasons, we can find some help to better understand the idea that the poets can speak the language of the birds, even outside Greece, in the myths of other cultures. A comparative approach can offer new perspectives to the reading of the Greek authors. A precious source of inspiration are the astonishing histories about an American trickster. In 1956 a book was published by the anthropologist Paul Radin,[17] who collected the tales about Wakdjûnkaga, a sacred character of the Winnibago, a tribe of the Sioux nation. The book could boast the collaboration of Carl Gustav Jung and Karl Kerényi and thanks to the fame of the authors and to the English translation made in 1956 (Radin 1956), Wakdjûnkaga and the figure of the trickster became familiar to everyone concerned with anthropological studies.

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15 For an introduction to the corpus Hesiodeum see Cingano 2009, who considers, however, the *Explanation of prodiges* as a different title of the *Ornithomanteia*.

16 A fragment by Heraclitus, 22 B57 D.-K. διδάσκαλος δὲ πλείστων Ἡσίοδος· τοῦτον ἐπίστανται πλεῖστα εἰδέναι demonstrates that Hesiod, like Homer, was considered by the ancients as a *mâitre de verité*. On Hesiod's poetry as an example of "wisdom poetry" see the remarkable studies by Ercolani (Ercolani 2010, Ercolani 2012, Ercolani 2016).

17 Radin 1956.

Wakdjûnkaga was a chieftain. The day before a battle he violated the traditional rules and he was criticized by the other warriors. He then renounced his social status and went far from his tribe. Once he abandoned his weapons, his canoe and his status symbols he became something different from a human being. He had no more self-consciousness. He did not perceive the boundaries of his own body. When he slayed a deer, his right hand, which was cutting the deer with a knife, quarreled with his left, and eventually the right hand wounded deeply the left (Radin 1956, chapters 4 and 5). In a climax of violence, Wakdjûnkaga inflicts the most painful cruelties and cannibalizes himself. Wakdjûnkaga can also change his gender. He can assume a female identity and give birth to a child.[18] As a female he/she got married with a warrior but also with a fox and other animals (chapter 20). Neither man nor woman, Wakdjûnkaga is no more a human being than he is an animal. Thanks to his extraordinary qualities Wakdjûnkaga is also responsible for many inventions very useful to mankind. He creates and gives order to reality, granting names to things. The linguistic skills of Wakdjûnkaga are very interesting for our discussion. When he renounced his role as chieftain and began a new life,

> from there on he continued alone. He ambled along calling all the objects in the world younger brothers when speaking to them. He and all objects in the world understood one another, understood, indeed, one another's language (Radin 1956, 7).

Wakdjûnkaga can speak to all things and to all animals, and all things and all animals can speak to him because he understands them. This is the first skill that he experimented in his new life. He can speak the many languages of nature because there is no clear distinction between him and nature. The myths about Wakdjûnkaga are the myths about a primordial age in which men and nature were one and the same. In this respect it is hard to find more penetrating words than those of C. G. Jung:

> this phantom of the trickster haunts the mythology of all ages [...]. He is obviously a 'psychologem', an archetypal psychic structure of extreme antiquity. In his clearest manifestations he is a faithful copy of an absolutely undifferentiated human consciousness, corresponding to a psyche that has hardly left the animal level (Jung 1956, 200).

18 This aspect is consistent with the myth of the seer Tiresias who once became a woman and then came back to the male identity: Ov., *Met*. 3, 323–331.

The idea that there has been a phase in which the single cannot be separated from the whole can be traced back already in an enlightening explanation of totemism by Jane Harrison:

> [totemism] stands for fusion, for non-differentiation. Man cannot project his individual self, because that individual self is as yet in part undivided; he cannot project his individual human will, because that human will is felt chiefly as one with the undifferentiated *mana* of the world; he cannot project his individual soul because that complex thing is as yet not completely compounded.[19]

Harrison's position is consistent with Lévy-Bruhl's theories (Lévy-Bruhl 1910) about the cognitive processes of primitive men. The French anthropologist sustained that the *principium individuationis* does not belong to this phase of human development.

The psychic condition of the trickster can also be experienced by modern men. Some hints of the trickster's awareness of his own boundaries can be detected in the first phases of babies' evolution, who are very concerned with their own bodily exploration. Self-aggression is a common experience of animals, for example dogs that bite their own tail or paw because they do not perceive their own body's limits. Among men, self-injury can be observed in many pathological states of mind. Even well-tempered adult humans can, however, enter a mental condition in which there is no distinction at all between self and other, rational and irrational, aware and not aware. I refer to the condition in which the unconscious displays its power. I draw here from the notion of unconscious of Ignacio Matte Blanco, the Chilean psychologist who undertook a deep revision of Sigmund Freud's theory. Matte Blanco developed an original theory of the unconscious named the theory of bi-logic (see Matte Blanco 1975). In this theory he considered the unconscious not as the state of mind in which the repressed aspects of our personality are expressed, but as a different way to think, quite similar to the processes of the more advanced mathematical theories, in particular that of Dedekind. In the mathematics of infinity, the principle of non-contradiction has no relevance and it is impossible to distinguish between part and whole. According to Matte Blanco, the human unconscious works in a similar way. In 1988 the Chilean psycologist published a book in which he elucidated the developments of the bi-logic theory formulated in 1975.[20] Matte Blanco unifies the sphere of thinking and the sphere of feeling in the unconscious dimension. The natural tendency of thinking to divide and distinguish, and the

19 Harrison 1927, 122.

20 Matte Blanco 1988.

natural tendency of feeling to unify, cannot be separated. They support each other. This happens in the bi-logic structure, which is active when we consider the same reality as formed at the same time by parts and simultaneously as an undivisible whole. The bi-logic structure has different levels of complexity. In the fifth and most complex level every form of thought is impossible. Any one thing cannot be distinguished from anything else. All things form one only indivisible thing. This is exactly the condition represented in the myths about Wakdjûnkaga. This is exactly the condition which Harrison, Levy-Bruhl and Jung refer to.

It is time now to go back to Alcman and the Greek poets. The theoretical frame we have sketched can give a more solid explanation to the archaic poets' claims to be able to speak and understand birdsong. The poets wanted to be considered as extraordinary people, but the skills they boast can be appreciated by everyone, since according to the tales about the most ancient times it was common to speak and understand the voices of other animals, birds in particular. The poets keep alive the experience of ancient men, when they were one only thing with nature. Ordinary people can have indirect access to this privileged experience during infancy or in the oneiric states of mind when the unconscious reproduces the same conditions as ancient men. It is not by chance that the tale about Homer reported by Eustathius combines infancy and dream.

The Greeks were familiar with the idea that a man can become something different from a human being. Their myths offer plenty of tales about metamorphosis to another form. For the same reasons they easily admitted the existence of hybrid creatures like centaurs, satyrs, nymphs and dryades, which remind us that it is possible to be simultaneously a man and something different from a human being. Within this general idea we must place the tales about the poets' portentous skills. When Alcman claims to understand and speak birdsong he is building a mythical tale to give authority to his own words. We can consider this tale as we consider Hesiod's or Archilocus' tales about their meeting with the Muses, since for the Greeks it was normal to refer to gods the true fact that poets, like seers or prophets, were exceptionally gifted people.

The particular skills of which Alcman boasts are deeply linked with orality, since they originate in sounds and produce sounds. It is relevant that in different cultures, when we are told of people who can speak an unknown language (xenoglossy) or a non-human language (glossolaly) we are never told that people are able *to write* that language, and on the contrary we are always told that people are able *to speak* that language.[21] It is evident that to use a writing system

21 See for example the miracle produced by the Holy Spirit during the Pentecost, when Jesus'

requires the use of abstraction and conscious thought. This implies that the bilogic structures, to recall Matte Blanco's theory, cannot work, while orality is perfectly coherent with the conditions in which men perceive a continuum between themselves and the world around them, and in which there is no clear perception of the specific nor of the individual identity. Orality is then the only possible form of communication in those states of mind in which is impossible to keep conscious and unconscious thought separated.

In conclusion, comparing the poet's voice to birdsong is much more than a literary *topos*. It is a living fragment of memory coming from the deepest layers of the human experience. It is a timeless truth about the evolution of mankind that Greeks expressed in mythical form. An idea that modern anthropology, developmental psychology and theories of the unconscious can now explain with more solid evidence.

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apostles could speak unknown languages (*NT Acts* 2:4). For the quite similar phenomenon of glossolaly in ancient and modern times see Bettini 2018, 159 – 181.

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Lucio Del Corso

Epos and *Paideia* between Orality and Writing

Abstract: The paper moves in two directions. At first, it aims to offer a quick overview of the role played by epic poetry in Greek educative system, from the Classical age to Late Antiquity, examining also the evolution of the corpus of texts used by teachers and students; moreover, it focuses on the role of the oral dimension of the learning and teaching practices which involved epic poetry. In order to shed a light on problems involving complex cultural dynamics, different sources will be used: school scenes on vases and reliefs, literary evidence, and especially extant *ostraka* and papyri, some used to read, learn, study ancient epic poetry, some others just showing its diffusion.

Keywords: Homer; orality; Greek papyri; ancient Greek school; Attic vases.

We have only one fragment of the account of the fall of Carthage described in the last part of Polybius' book 38, but it can be considered one of the most famous pages in Greek literature (Pol. 38, 21). The victor, Scipio Aemilianus, is alone, standing in a landscape of ruins, lost in his thoughts, when suddenly he starts crying, and quotes two verses from book 6 of the *Iliad:* "the day shall come when sacred Ilios shall be laid low, and Priam, and the people of Priam with goodly spear of ash" (6, 448 – 449; transl. A. T. Murray). Scipio was fond of Homeric quotes. According to Plutarch, during the siege of Numantia he commented on the news of Caius Graccus' death with a contemptuous verse from the first book of the *Odyssey*, thus becoming unpopular among the plebs (Plut., *Tib. Gr.* 21, 4 – 5). The Roman general was not the only one who relied on Homeric quotes to express intense feelings. Ancient historiography offers a wide array of leaders and politicians who quoted the Homeric poems in crucial circumstances. Dionysius of Halicarnassus (20, 6) reports that Pyrrhus invited the Romans to fight in the open field by reciting the verse which Hector addresses to Aiax in *Iliad* book 7 (242 – 243), challenging him to battle. Plutarch again informs us that the humble Philopoemen fed on all the verses by Homer which could direct the souls toward military valor (*Philop.* 7). Before him, Alexander, the archetype of all leaders imbued with poetry, had developed such a visceral passion for Ho-

 https://doi.org/10.1515/9783110751987-009

meric poetry since childhood that he always carried a complete edition of the *Iliad* with him, edited by Aristotle himself, his tutor (Plut., *Alex*. 8, 2).[1]

But in the ancient world Homer was not just for the happy few.

Let us move decades forward and many hundreds of miles, reaching Egypt. We have no information about the military valour of Strato, a soldier stationed on the isle of Elephantine some years before 190 BC; but he certainly knew some Homer, as he was able to jot down the first nine verses of the *Odyssey* on an *ostrakon* which he was using to prepare the draft of a petition addressed to his *strategos*, Socrates, to complain about the behaviour of a fellow soldier (BGU VI 1470) [Fig. 1].

There are no breaks between the document and the quote from Homer: what we have is a kind of stream of consciousness where Homeric poetry is a substratum which resurfaces when the hand does not know how to go on. In other cases, an allusion to Homer is a way to express solidarity among colleagues. Thus Timaios, one of the managers of senator Appianos' estates, jokes with his colleague Heroninos by comparing their employer to Zeus, who – as we read at the beginning of the second book of the *Iliad* – "was not holden of sweet sleep" (*Il.* 2, 1–2; P. Flor. II 259).[2] Elsewhere, in the 'glorious and most glorious' city of Oxyrhynchus, the tragic story of Hector and Andromache was uppermost in the mind of a housewife, who, in a heartfelt but disorderly letter, asked her son Ptolemy whether he was still studying "the sixth book", even though his teacher had left, and urged the boy and his *paidagogos* to find soon another teacher (P. Oxy. VI 930).[3]

We could add other sources, and other findings, from Egypt or from other corners of the Hellenized world. But even this simple list of scattered evidence reveals the stratified functions that the Homeric text exercized in the cultural *koine* of the Hellenized world, and its ability to cut across social strata, places, and even ethnic groups. The link between *epos* and *paideia* was a close and enduring one, and because of this it is difficult to trace its development, especially when we think that our varied evidence (which is necessarily Egyptocentric from the Hellenistic age onward, and mostly indirect for the Classical age) leaves some crucial questions open: how were Homeric texts approached, at school and elsewhere, and which where the dynamics of their circulation? How common were books, schools, and teachers outside the main cities and 'cultural capitals'? More generally, is it possible to speak of a homogeneous 'school system'

1 The famous "*Iliad* from the casket (ἐκ τοῦ νάρθηκος)", mentioned also in 26, 1; see Nagy 1996, 200–203.

2 Both BGU VI 1470 and P. Flor. II 259 are discussed in Fournet 2012, 127–128 and 141–142.

3 Bagnall/Cribiore 2006, 77 and 375–376 (with previous bibliography).

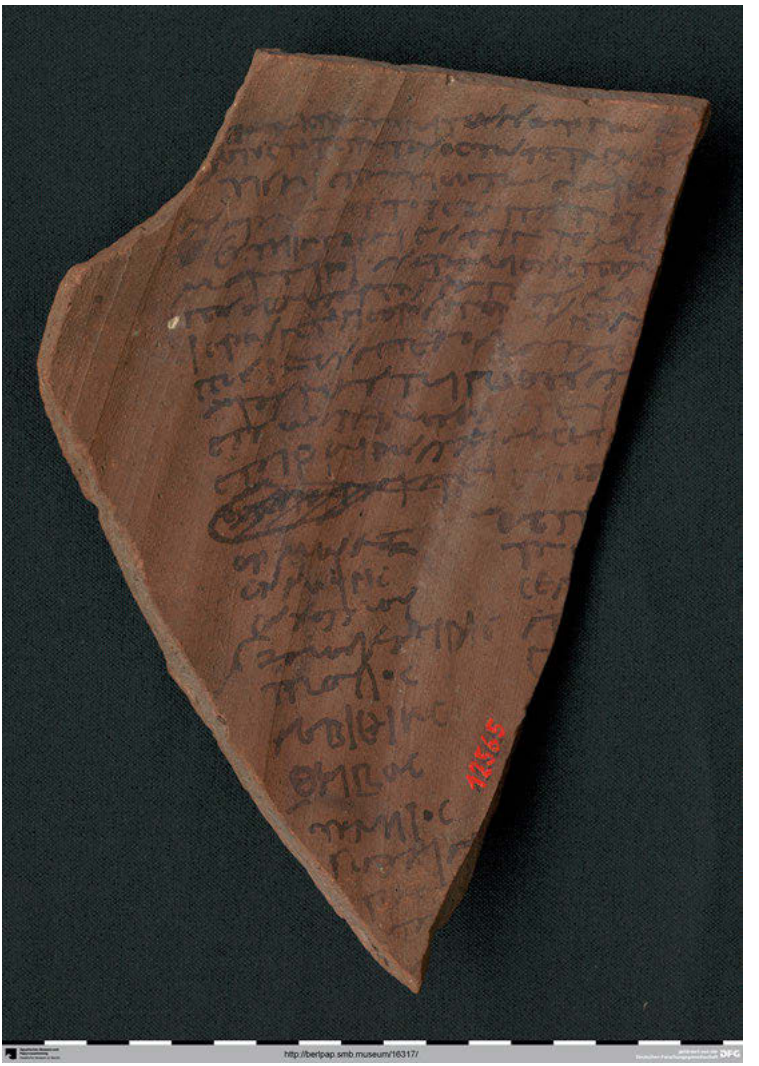

Fig. 1: BGU VI 1470
(c) Ägyptisches Museum und Papyrussammlung, Berlin.

for the Hellenized world and, if so, to what extent? What evolutions did such a system undergo?

While I cannot hope to provide a complete picture, I can at least try to offer a few suggestions, by focusing on some tiles of this mosaic, juxtaposing literary echoes, images, and written items.

In Classical Athens *paideia* was a private affair.[4] Teachers did not need any titles or specific qualifications, nor were there fixed procedures for their selection or to check their work, differently from what happened in many other areas of social life: the community controlled only teachers' moral behaviour, and could act harshly and cruelly toward them in the event of any threat to the *status quo*. Similarly, there were no fixed *curricula*, although the school routine was organized according to guidelines which were universally followed, as in the case of the primacy assigned to the study of poetic texts.[5] From the very beginning, most of the teaching focused on poetry.[6] The most effective descriptions of the way poetry was taught are paradoxically offered by the most lucid critic of the Athenian educational system, Plato. As we read in his *Protagoras:*

> ἐπειδὰν αὖ γράμματα μάθωσι καὶ μέλλωσι συνήσειν τὰ γεγραμμένα, ὥσπερ τότε τὴν φωνήν, παρατιθέασιν αὐτοῖς ἐπὶ τῶν βάθρων ἀναγιγνώσκειν ποιητῶν ἀγαθῶν ποιήματα καὶ ἐκμανθάνειν ἀναγκάζουσιν.
>
> when they (*scil.* the children) have learnt their letters and are getting to understand the written word as before they did only the spoken, are furnished with works of good poets to read as they sit in class, and are made to learn them off by heart (*Prot.* 325e; transl. W. R. M. Lamb).

Plato does not mention epic, but it is clear that it is included in the kind of poetry he is describing. In any case, for the philosopher this was a wrong way of teaching young people, since it did not allow them to attain virtue and wisdom, which were the ultimate goal of education.[7] But combining reading with the memorizing of long selections of poetic texts was the most common educational practice throughout the Classical age, at least in Athens, as Plato himself confirms in many passages. In the *Laws* (7, 810e) he clearly voices his annoyance at the spread of this approach to texts:

> λέγω μὴν ὅτι ποιηταί τε ἡμῖν εἰσίν τινες ἐπῶν ἑξαμέτρων πάμπολλοι καὶ τριμέτρων καὶ πάντων δὴ τῶν λεγομένων μέτρων, οἱ μὲν ἐπὶ σπουδήν, οἱ δ' ἐπὶ γέλωτα ὡρμηκότες, ἐν οἷς φασι δεῖν οἱ πολλάκις μυρίοι τοὺς ὀρθῶς παιδευομένους τῶν νέων τρέφειν καὶ διακορεῖς ποιεῖν, πολυηκόους τ' ἐν ταῖς ἀναγνώσεσιν ποιοῦντας [...].

4 See the general picture in Beck 1964, especially 72–146, and, for a shorter but updated survey, Pritchard 2015.

5 Morgan 1999; Griffith 2001; Rihll 2003.

6 Robb 1994, 159–182 and *passim*.

7 Nightingale 2001, 136–154; Gastaldi 2002 (both especially focused on the pedagogical model described in the *Republic*).

> I verily affirm that we have composers of verses innumerable – hexameters, trimeters, and every meter you could mention –, some of whom aim at the serious, others at the comic; on whose writings, as we are told by our tens of thousands of people, we ought to rear and soak the young, if we are to give them a correct education, making them, by means of recitations, lengthy listeners [...] (transl. W. R. M. Lamb).

Alternatively, the philosopher adds, teachers used to make a selection of passages, combining summaries (κεφάλαια) with ὅλας ῥῆσεις, and asked their students to learn them by heart, if they wished "to become good and wise".[8]

In such passages from Plato the study of poetic texts is immersed in an 'aural' dimension, where books and the spoken word both play a key role.

The starting point was always a written text, whose physical features, presumably, could vary significantly: sometimes it was an actual book, such as the "works of good poets" mentioned in the *Protagoras*, which were literally ἐπὶ τῶν βάθρων, "on the benches" of the students and had to be read by them; sometimes it took the form of draft notes, such as the κεφάλαια of the *Laws*, which were actually combined with early anthologies compiled for specific purposes. Moreover, students used for their exercise writing boards, where ephemeral texts were constantly added, as we can infer from written sources (Plat., *Prot*. 326d)[9] and especially vascular paintings.[10] The coexistence of different writing materials, designed for specific literary practices, is a characteristic of the Greek system of textual production, attested by many sources.[11] It is quite natural to find it in school practices as well, especially because the use of different objects as rolls and tablets is one of the most striking characteristics of visual portrayals of school scenes.

Indeed, the circulation and the availability of books and perishable writing materials in 5th century BC Athens was probably much wider than what some scholarly reconstructions suggest,[12] as is clear from the more accurate surveys of indirect sources and some outstanding archaeological findings made in the late 20th century, but partially published only in recent years. Papyrus was not very expensive in itself. In 408 BC, during one of the most troubled times in Athenian history, a 'blank' papyrus roll, one *chartes*, was worth one dracma and two obols, according to the long inscription recording the expenses for

8 Plat., *Leg*. 7, 811a εἰ μέλλει τις ἀγαθὸς ἡμῖν καὶ σοφὸς ἐκ πολυπειρίας καὶ πολυμαθίας γενέσθαι.
9 Turner 1965.
10 Some relevant examples are mentioned in Del Corso 2003, 59–60.
11 Del Corso 2016.
12 See e. g. the 'reductive' perspective of Harris 1989, 65–115; for a critical discussion of this point of view see Bagnall 2011, 2–4.

the building of the Erechtheion (IG I^3 476): less than a manual laborer's daily wage.[13] Some decades later, on a 'shopping list' written on an *ostrakon* found in the *agora* close to the *Prytaneion* and possibly to be connected with its activities, we find mention of one χάρτης, or roll, along with daily items of little value: dishes and bread loaves.[14] For city elites, it was quite normal to own books,[15] but this was not impossible even at a lower social level. In 1981 thanks to emergency excavations in one of Athens' suburbs, Daphne (53 Olgas street, now Ethnikis Antistaseos street), it was possible to recover a section of a large necropolis, probably belonging to the *demos* of Alopece, which extended along either side of the ancient *Astiki odos*.[16] The dead buried there belonged to the middle or upper-middle class, as is demonstrated by the sobriety of their tombs and grave goods, where the most valuable items are some *lekythoi* of mediocre workmanship.[17] One of these individuals, who died during the first years of the Peloponnesian War, was buried with everything he needed to enjoy the highest levels of *paideia* (besides a bag of knucklebones), a lyre, an *aulos*, a harp, a quill, an ink-pot and especially a set of writing boards and a papyrus roll, on which poetic texts, including epic verses, were originally written (though they have now faded almost completely).[18]

Because of the finding of such unusual collections of items, the tomb has been called the Musician's tomb, implicitly suggesting a profession for the deceased. But there are also other possibilities. Since full anthropological and genomic data are not available yet, we cannot be sure even of the sex of the deceased. We only know that he/she was young, maybe in his/her early twenties,[19] maybe younger, as an *ephebos*.[20] The traditional idea of a young professional musician is not impossible, though we find parallels in inscriptions only for later periods.

13 Lewis 1974, 129 – 134 (for a general discussion, starting from the Erechtheion inscription and comprising also Hellenistic and Roman sources).

14 Lang 1976, B 14 (P4899); Caroli 2016.

15 On such heavily discussed topic, apart from the 'classic' contribution by Turner 1952, see at least Del Corso 2003, 12 – 19, and Cavallo 2020, 18 – 25, both with further bibliography and discussion of the different positions.

16 Descriptions of the excavations in Pöhlmann/West 2012, 1 – 2, Pöhlmann 2013, and Lygouri-Tolia 2014.

17 Simon/Wehgartner 2013

18 For a general description of the finds see Pöhlmann/West 2012, 2 – 3, Alexopoulou/Kaminari 2013, Terzes 2013; for an analysis and a partial edition of the roll and the tablets see Pöhlmann/West 2012, 3 – 10, West 2013, Alexopoulou/Karamanou 2014, Karamanou 2016, and Karamanou 2019.

19 Karamanou 2016, 52.

20 Lygouri-Tolia 2014, 19 – 21.

But there are also other possibilities. The objects linked to music and education could point to a teacher or, if the dead was too young, a talented "*ephebos*, whose progress in music qualified him to teach younger pupils", as Eutychia Ligour-Tolia suggested.[21] In any case, the young age of the deceased also suggests a further scenario. In funerary art, references to books and reading always point to individuals who died before they were able to play an active role as citizens, and who therefore are celebrated by stressing other qualities, such as their *paideia:* this is particularly the case with women and young people who died prematurely.[22] These two categories are the subject of several art works, some of which are quite well known: the *lekythos* by the Klügmann painter (Louvre, CA 2220),[23] to give one example, and some stelae dated to the second half of the 5th century BC, such as the one from Thespiai, which shows an elegant girl, with a box, beneath her seat, where an open bookroll lays (Athens, National Museum, 817)[24] [Fig. 2], another from Amorgos, where a seated boy takes a writing tablet from a standing friend (Athens, National Museum, 4470),[25] and lastly the most famous, the 'Grottaferrata relief', which – according to an accurate examination of its stylistical features by Elena Ghisellini – was probably made by a Ionic sculptor (maybe originating from Paros), who was active also in Athens, for a long period.[26]

In such cases, rolls and other writing materials are the symbols of the deceased person's *paideia*, not of his or her professional activity. The rolls, tablets and musical instruments inside the tomb at Daphne could have the same function. But what is interesting for us here is that the deceased's relatives chose to preserve some epic verses, yet not ones from the Homeric poems, as we will see.

The book culture that we may reconstruct through such glimpses of evidence was characterized by reading practices full of performative elements, where the voice played a key role. After memorizing a text, a schoolboy was expected to recite it in front of his teacher and 'classmates'. This part of the lesson is depicted on many red figure vases, such as the well-known Douris 'school' cup (Berlin,

21 Lygouri-Tolia 2014, 21.

22 Del Corso 2003, 49–66.

23 Beazley 1963, 1199 no. 25, where the standing female figure is alternatively identified with a Muse; even if such interpretation is followed in some studies, it would be preferable to consider her as a 'mortal' woman: see e. g. Cavallo 2009, 59 and Walter-Karydi 2011–2012, 221 (both with reproductions of the vase); 'domestic' and 'divine' elements overlap in the interpretation of the scene by Bellier-Chaussonnier 2002, 337.

24 Karouzou 1968, 107.

25 Karouzou 1968, 49; *Greek Art* 1979, 232, no. 187.

26 Ghisellini 2007. The relief is now in the Museum of the Exarchic Monastery of St. Mary (Grottaferrata, Museo dell'Abbazia di San Nilo).

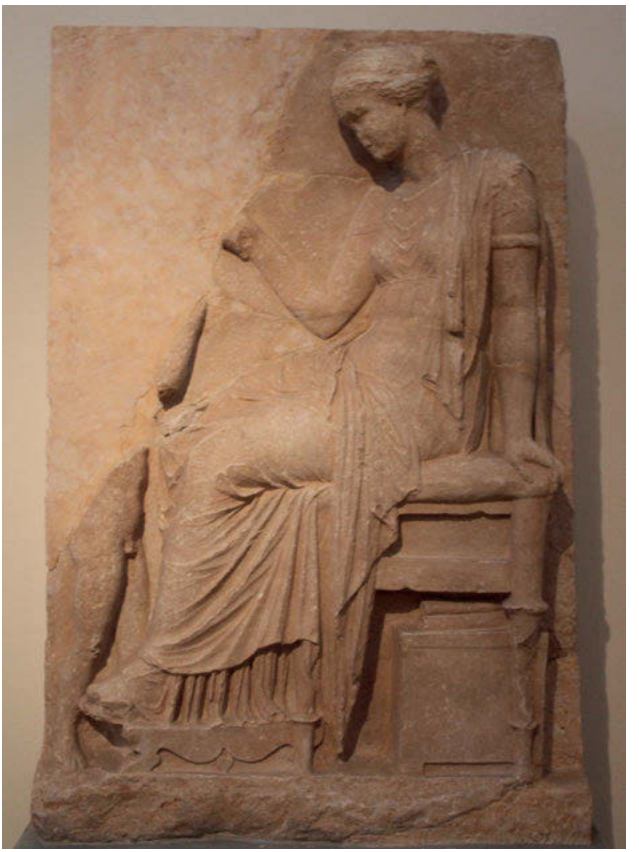

Fig. 2: Relief from Thespiai, Athens, National Museum, 817.
(c) photo L. Del Corso.

Antikensammlung, F2285),[27] and another cup by the Eretria Painter (Paris, Louvre, G 457), where the teacher is Linos, and the student Mousaios.[28] Sometimes the performance becomes an *agon*, with the proclamation of a winner (and tears from the losers). Such 'mini-agons' were often held in a private setting and hence were open only to the teacher's students: one of such occasions is alluded to on

27 Beazley 1963, 283 no. 47. This is one of the most studied (and illustrated) red-figured vases dealing with education: see e. g. Immerwahr 1964, 18 f.; Beck 1975, nos. 53 f.; *CVA* Germany 21, Berlin 2, pll. 77.1–2, 78.1–4, 127.1–5. See *infra*, fig. 4 and, on other interpretations of this scene, footnote 38.

28 Beazley 1963, 1254 no. 80; Beck 1975, no. 30.

the cup attributed to the Painter of Münich 2660 in the Metropolitan Museum in New York (17.230.10) [Fig. 3].[29]

Fig. 3: Cup attributed to the Painter of Münich 2660. New York, Metropolitan Museum, 17.230.10.
(c) Open Access; courtesy of the New York Metropolitan Museum.

However, in some/ circumstances these events could acquire a public dimension: for instance, when they were connected to official festivals of the *polis*. In *Timaeus* (21b) Plato says that such agons were held during the Apaturia festival:

> τὸ δὴ τῆς ἑορτῆς σύνηθες ἑκάστοτε καὶ τότε συνέβη τοῖς παισίν· ἆθλα γὰρ ἡμῖν οἱ πατέρες ἔθεσαν ῥαψῳδίας. πολλῶν μὲν οὖν δὴ καὶ πολλὰ ἐλέχθη ποιητῶν ποιήματα, ἄτε δὲ νέα κατ' ἐκεῖνον τὸν χρόνον ὄντα τὰ Σόλωνος πολλοὶ τῶν παίδων ᾖσαμεν.
>
> the ceremony for boys which was always customary at the feast was held also on that occasion, our fathers arranging contests in recitation. So while many poems of many poets were declaimed, since the poems of Solon were at that time new, many of us children chanted them (transl. W. R. M. Lamb).

'Official' agons are depicted on several vases: on an amphora now in Boulogne-sur-mer a young man receives a victory fillet from a winged Nike;[30] on a cup in

29 Beazley 1963, 784 no. 25; Beck 1975, nos. 58 – 60; Sparkes 2015, 88 (with figg. 7.10 and 7.11).
30 Musée Boulogne-sur-Mer, 667, attributed to the Ethiop Painter; Beazley 1963, 666 no. 15; Beck 1975, no. 228.

Melbourne the scene is more lively: while on one half of the body a music lesson is depicted, on the other the consequences of a contest are shown, with a boy, on the right, crowned by Nike, and another, on the left, waiting for his teacher to slap him.[31]

Book reading and performance seem deeply linked to each other, within a complex oral-aural system which was not a unique feature of didactic practices, but more generally characterized the circulation of literary texts, especially in the private sphere. Reading was chiefly a collective activity,[32] so it is hardly surprising that performative elements are also prominent in reading scenes which do not have a school setting. An open roll on the knees of a teacher or a mere lover of literature has a role, as a starting point and complement in performances of this sort.

Within this general picture *epos* played a key role, yet it was not the only genre to be cultivated, at school as well as elsewhere.[33] The description offered by Plato's *Protagoras*, as we have seen, fits epic poetry, but it is worth noting that the philosopher uses general terms, without specifying any works or authors: throughout the Classical age the array of texts which were read at school and chosen by teachers was wider than we generally imagine. Homer and his two main poems were already given a primacy: Plato himself chooses him as the main target of his critics to the alleged educative role of poets in book 10 of his *Republic* (but mentioning also Hesiod and obscure figures as one Creophylos, "the friend of Homer");[34] and in 4th century Athens even a mere school teacher was supposed to have a personal copy of Homer's poems, as some interesting anecdotes seem to suggest: Alcibiades is said to have punched one of his teachers after discovering that he did not have a complete edition of the poems, and to have mocked another one, who claimed to have made a full *diorthosis* of the whole *Iliad* and *Odyssey* (Plut., *Alc.* 7).[35] But children were required to read and memorize verses from many other works too. The young in the Daphne's tomb – whatever his profession in life – was offered for resting in the afterlife

31 Melbourne, National Gallery of Victoria, 1644.4, attributed to the Splanchnopt Painter; Beazley 1963, 892, no. 7; Beck 1975, nos. 101, 136, 273.

32 Cavallo/Chartier 1998, X-XVIII; Cavallo 2020, 20 – 22.

33 It is worthwhile to note that Robb 1994, in his detailed survey of sources on literate education in Classical Greece, reaffirms the key role of epic poetry, in Greek educative system, but considering a *corpus* of texts which did not comprise only the *Iliad* and the *Odissey*, as it is clear by the use of expressions as " 'Homer', or the great body of Greek epical verse" (160) or " 'Homer' and other epical figures" (161).

34 Plato, *Resp.* 10, 598e – 601c (Hesiod is mentioned at 600d, and Creophylos at 600b). See at least Halliwell 1997, Giuliano 2000, and Collobert 2011, especially 49 – 61.

35 Del Corso 2010, 87 – 88.

a roll and a set of writing boards containing verses, presumably epic, which are surely not drawn from the Homeric poems.[36] And further confirmation comes from vascular paintings. Some ceramographers are so meticulous as to include a verse on the rolls they have painted, in the form of a miniature inscription, and in one case we even find a sort of book title.[37] Such inscriptions never come from the main Homeric poems, even when they refer to Trojan matters. So, in Douris' cup the teacher's roll has the inscription Μοῖσά μοι | ἀμφι Σκά|μανδρον ἐ|ῦρροον | ἄρχομ' ἀ|είδειν, which is clearly an *incipit* for a work related to the Trojan War, though different from the *Iliad*. [Fig. 4][38]

Fig. 4: Cup by Douris. Berlin, Antikensammlung, F 2285
(c) Berlin, Antikensammlung, Staatliche Museen zu Berlin.

36 See the assessment of the (little) extant evidence in Karamanou 2019, 95–97.

37 Immerwahr 1964, 39–45; Gaunt 2014, 107–113.

38 I follow the text established by Sider 2010 (with full bibliography). The text of the inscription is problematic: apart from the orthographic faults, its syntax is so twisted that it can not be emended. Because of this, Sider 2010, 549–552 suggested an alternative explaination of the whole scene: in his view, the teacher is not attending a performance by the boy, but correcting his faulty homework, a reconstruction not far from Gallavotti 1979, 127–128. Relevant objections to Gallavotti's reconstruction (which can be valid also for the more recent one by Sider) can be read anyway in Palumbo Stracca 1994, 125 (quoting Havelock 1982, 201–202). Scholars do not agree also on the metrical interpretation of the inscription. Due to its evident dactylic nature, the verse is usually scanned as an hexameter (see e.g. Immerwahr 1964, 19), but Page 1962, no. 938 e prefers to consider it as melic, and Palumbo Stracca 1994, 126–128 does not exclude that it could be interpreted as the beginning of a citharody, and so as a 'lyric' hexameter.

In another one, surviving on a fragment from a 'school' cup painted by a follower of Douris, the Akestorides Painter, we read a reference to Herakles, his son Ioalus and his brothers, who were the main charcters of poems and mythological tales now lost, in their original shape, but surely without having a special place in the *Iliad* or the *Odyssey*. [Fig. 5][39]

Fig. 5: Fragment of cup by the Akestorides Painter; Getty Museum, 86.AE.324
(c) Courtesy of the Getty's Open Content Program.

And when we suspect a reference to the Homeric diction, its recalling is quite vague. On one roll, depicted on a further cup with school scenes by the same Akestorides Painter, we read the inscription ΗΟΣΔΕ | ΜΟΙΚΑ | ΙΜΑΛΟ | ΝΕΠΕΣ.[40] Such words are clearly the first part of an hexameter, which has an 'Homeric' tone and could suggest a reminescence of e. g. *Il.* 9, 398 (ἔνθα δέ μοι μάλα πολλὸν ἐπέσσυτο θυμὸς ἀγήνωρ), as John Beazley supposed, but other recon-

39 Getty Museum, inv. 86.AE.324; Beazley 1963, 1670, no. 4bis. On the place of Herakles and Heracleidae in archaic Greek literature see at least Angeli Bernardini 2010, Koning 2017, 108 – 112, Barker/Christensen 2021.

40 Washington, Smithsonian Institution, National Museum of Natural History 136373; Beazley 1948, 338 f.; Beazley 1963, 781, no. 4; Immerwahr 1964, 22, no. 7; Schwarz 1996, no. 49.

structions are equally possible: the painter did not seem to quote a specific verse, but rather he is allunding to a poetic manner which was based on a *corpus* of texts far greater than the extant one.[41]

Literary *paideia*, in the Classical age, was versatile and included, according to the definition of Luigi Enrico Rossi, an 'epic archipelago'[42] which was not limited to the Homeric poems, and which in any case did not necessarily have Homer as its starting point. Only in later centuries did things change.

The idea that poetry had a key role in the Greek educational system endured far beyond the age of *poleis*. In the long proem to his work, Strabo reiterates such a claim, arguing with some of his predecessors, such as Eratosthenes, who preferred more empirical forms of knowledge. "Greek cities", we read at some point, "educate the young at the very beginning by means of poetry, not for the mere sake of entertainment, but for the sake of moral discipline" (1, 2, 3; transl. H. L. Jones, with minor changes).[43] Indeed, compared to what happened during the Classical age, the range of texts chosen to achieve this ethical goal was extremely small and conventional, and was mostly limited to the Homeric poems. Some ancient treatises justify such a choice as a natural and necessary consequence of the intrinsic characteristics of the *Iliad* and the *Odyssey*. Among the most enthusiastic supporters of the primacy of the two poems there are the authors of the biographic sketches of Homer wrongly attributed to Plutarch, but written roughly in his age (or anyway after the 2nd century AD).[44] They are works which were created for teaching purposes, and especially to offer an "introduction for those in the early stages of education" (transl. M. L. West).[45] We do not know if that text was read in any classroom, but it reflects the kind of knowledge and cultural coordinates which shaped grammarians' engagement with Homer. The underlying theoretical assumption is the natural and overwhelming superiority of Homer compared to any other figure within the Greek literary tradition. Because of this superiority, according to our author, it is essential to read the Homeric poems at school before any other text:

> Ὅμηρον τὸν ποιητήν χρόνῳ μὲν τῶν πλείστων, δυνάμει δὲ πάντων πρῶτον γενόμενον εἰκότως ἀναγινώσκομεν πρῶτον, ὠφελούμενοι τὰ μέγιστα εἴς τε τὴν φωνὴν καὶ τὴν διάνοιαν

41 The Homeric recalling is suggested in Beazley 1948, 339; discussion of the verse in Immerwahr 1964, 22, no. 7.

42 A metaphor which Rossi used in several occasion: e. g. Rossi 2020, 186 – 190 (together with another definition: epic poetry as a "spirale infinita") and 206 – 207 (see also Lulli 2014).

43 Strab. 1, 2, 3 αἱ τῶν Ἑλλήνων πόλεις πρώτιστα διὰ τῆς ποιητικῆς παιδεύουσιν, οὐ ψυχαγωγίας χάριν δήπουθεν ψιλῆς, ἀλλὰ σωφρονισμοῦ.

44 Lefkowitz 2012, 28.

45 *Plutarchi Vita I*, 1 εἰσαγωγὴν τῶν ἀρχομένων παιδεύεσθαι.

> καὶ τὴν τῶν πραγμάτων πολυπειρίαν. λέγωμεν δὲ περὶ τῆς τούτου ποιήσεως, πρότερον μνησθέντες διὰ βραχέων τοῦ γένους αὐτοῦ.
>
> It is reasonable to first read the poet Homer, the foremost among many on account of his age and the best of all in terms of his expressive power, because in this way we can reap the greatest benefit to our eloquence, reasoning and knowledge of affairs (*Plutarchi Vita II*, 1).

Such statements reflect the arrangement of the scholastic *curriculum* for a period going from the beginning of the Imperial age to Late Antiquity. In this wide time frame the Homeric poems served as a landmark for all levels of education. Verses from the *Iliad* and the *Odyssey*, or even just lists of words or proper names from the poems, represented a good starting point for writing exercises for children who were just learning to write and read as much as for people who aspired to become scribes and needed to practice calligraphic scripts. For example, in MPER XVIII 238 (Cribiore 1996, no. 112) we see a list of names of deities and heroes from the *Iliad* written by a teacher as a model for his schoolboys. Another teacher model is a writing board in the British Museum with verses from the third book of the *Iliad*, which are written in such a way that the words and syllables are clearly distinguishable, to help children learn to read (T. Lond. Add. MS 33293; Cribiore 1996, no. 292). On a papyrus strip from Oxyrhynchus someone who was practicing calligraphic scripts (a student or a scribe) transcribed the first verse of the *Iliad* (P. Cairo inv. JdE 56225; Cribiore 1996, no. 132) twice. For centuries, generations of students sweated over such a verse. And as late as the 6th century, in the monastery of Epiphanius, it was copied – with other Homeric formulas – by scribes who were trained in professional scripts as the Byzantine cursive, as part of their training or just for pen trials. One limestone *ostrakon*, where it is repeatedly written, has indeed some remarkable features (P. Mon. Epiph. 611, with pl. XIV; Cribiore 1996, no. 168). On it, we see two different hands: one copies the Homeric verse three times, on the upper part; the second transcribes it once more, on the right part, but it adds also, on the lower part, a completely different text: a private letter in Coptic.[46] The *ostrakon* was clearly written in a bilingual *milieu*, where Greek and Coptic texts were used, and produced, together. In such context, Homer was one of the points of reference for anyone who was learning or practicing Greek, even so far from Greece. Similar texts have also been found in or around other Greek monasteries, such as those purchased or excavated by Flienders Petrie in Dendera and in other sites of the Theban region, comprising *ostraka* with pericopes of different length

46 Bucking 2007, 40 – 42.

from the Holy Scriptures, the *Maxims* attributed to Menander and finally Homer's *Iliad*. [Fig. 6][47]

Fig. 6: O. Petrie Mus. 31
(c) The Petrie Museum of Egyptian Archaeology UCL.

According to Cornelia Römer's suggestion, it is reasonable to imagine that such texts were written in an educational environment:[48] even if the Homeric poems did not ensure the salvation of one's soul, the faithful might have problems approaching the Holy Scriptures without them.

47 Pericopes from *Psalms* and and *Epistles:* O. Petrie Mus. 1, 3–12, 14–17; Homeric verses (mostly from the first book of the *Iliad*): O. Petrie Mus. 21–34; Menander's *monostichoi:* O. Petrie Mus. 36–49. Such *ostraka*, on palaeographic grounds, have been divided in two groups: the 'Group A', coming from the western part of the Theban area, and the 'Group B', probably found in Dendera. Lists of relevant tests, and full discussion of the problems related with their provenance, in Funghi/Martinelli 2003; Funghi/Martinelli 2008 and O. Petrie Mus. 3–7. See moreover the remarks in Lougovaya 2020, 120–121.
48 Römer 2003, 189–190; Römer 2008, 53–54; O. Petrie Mus. 6–7.

The centrality of Homer was more evident in the school of the *grammatikos*, the intermediate level.[49] Any grammatical explanations, any efforts to understand the language, figures of speech, and stylistic rules revolved around the poems. Names such as Priam and Hecuba are used as *exempla* to explain the rules of the first and second declensions in a small, 4th-century AD codex from Antinoupolis (PSI inv. 479);[50] in another one, probably written in the same century, we find a list of Aeolic forms of the name Achilles (PSI inv. Ant. 65 – 308 A/1).[51] Grammarians devoted a large part of their time to reading and commenting on Homeric passages (we may remember the letter by the worried housewife in Oxyrhynchus), though the reading patterns they chose mostly focused on a limited number of books: according to extant papyri, in Greco-Egyptian schools the essential readings were the first six books of the *Iliad* (though others could be read as well), and books four and eleven of the *Odyssey* (the latter was probably chosen because it dealt with many characters also featured in the *Iliad*).[52] The incredible number of copies of such texts, mostly produced by professional workshops, can partly be explained by their circulation in schools. Indeed, students were required to know the overall plot of the two works, including their mythical background and the narrative developments of the cycle (e. g. the death of Achilles, the fall of Troy, and the main *nostoi*). Papyri have preserved many textual tools which were especially conceived for the memorizing of such information:[53] prose synopses (*hypotheseis*) focused on a plain exposition of the *fabula*, such as P. Oxy. XLIV 3160 + Strasb. gr. 1401, where we read summaries of the first three books of *Odyssey*, each followed by a glossary;[54] or selections of stories about individual characters or episodes, as those attributed to the so-called *Mythographus Homericus*, which were introduced by Homeric verses (or parts of them):[55] see e. g. P. Oxy. XLII 3003 (2nd AD),[56] LXI 4096 (2nd AD),[57] or PSI X 1173 (beginning of the 3rd AD). [Fig. 7][58]

49 Cribiore 2001, 194 – 197. See also Morgan 1998, 75 – 78 and 105 – 114.

50 First edited in Zalateo 1940, 12 – 14; Cribiore 1996, no. 372; for the date and the palaeographical features of the fragment, see Del Corso 2015, 182 – 184.

51 Del Corso/Pintaudi 2017, 553 – 556.

52 Cribiore 2001, 194 – 197.

53 Van Rossum-Steenbeek 1998, 53 – 74; Del Corso 2010, 97 – 101; Montanari 2012, 4 – 5.

54 Van Rossum-Steenbeek 1998, 62 – 64, P39.

55 Van Rossum-Steenbeek 1998, 85 – 118 (with discussion of some relevant papyri); Montanari 1995 and Montanari 2002.

56 Van Rossum-Steenbeek 1998, 97, P52.

57 Van Rossum-Steenbeek 1998, 98, P53.

58 Van Rossum-Steenbeek 1998, 99, P56; for the date see Cavallo/Crisci/Messeri/Pintaudi 1998, no. 46 (Degni).

Fig. 7: PSI X 1173
(c) MiBAC, Biblioteca Medicea Laurenziana.

Some of these texts seem structurally linked to school routines. P. Oxy. LVI 3829 (end of the 2nd AD)[59] records genealogical information on some characters of the *Iliad* in the form of a 'catechism' ("Who are Hector's heralds? Idaeus and Eumedes"); after the 'catechism' we find a short narrative of the events leading up to the Trojan War and then another one, on the contents of the first book of the poem, introduced by its first verse. More generally, the 'bookish' study of Homer entailed the production of a large number of tools to aid readers: glossaries, advanced commentaries (*hypomnemata*), and shorter notes (*scholia minora*).[60] Some were intended to help the reader understand whole books, as in the case of P. Oxy. XXIV 2405 (2nd-3rd AD) and P. Oxy. LXXI 4818 (3rd AD) and, both of which are devoted to the first book of the *Iliad*; others were more akin to our own dictionaries, as in the case of the fragmentary PSI XVII 1669 (1st-2nd

59 Van Rossum-Steenbeek 1998, 56 – 57, P30.
60 For a survey of extant material and a typological study see Raffaelli 1984; Lundon 2011; Montanari 2012, 10 – 15.

AD), where we find columns with Homeric words starting with *eta*, written on the back of a letter (possibly inserted in a *tomos synkollesimos*) [Fig. 8].

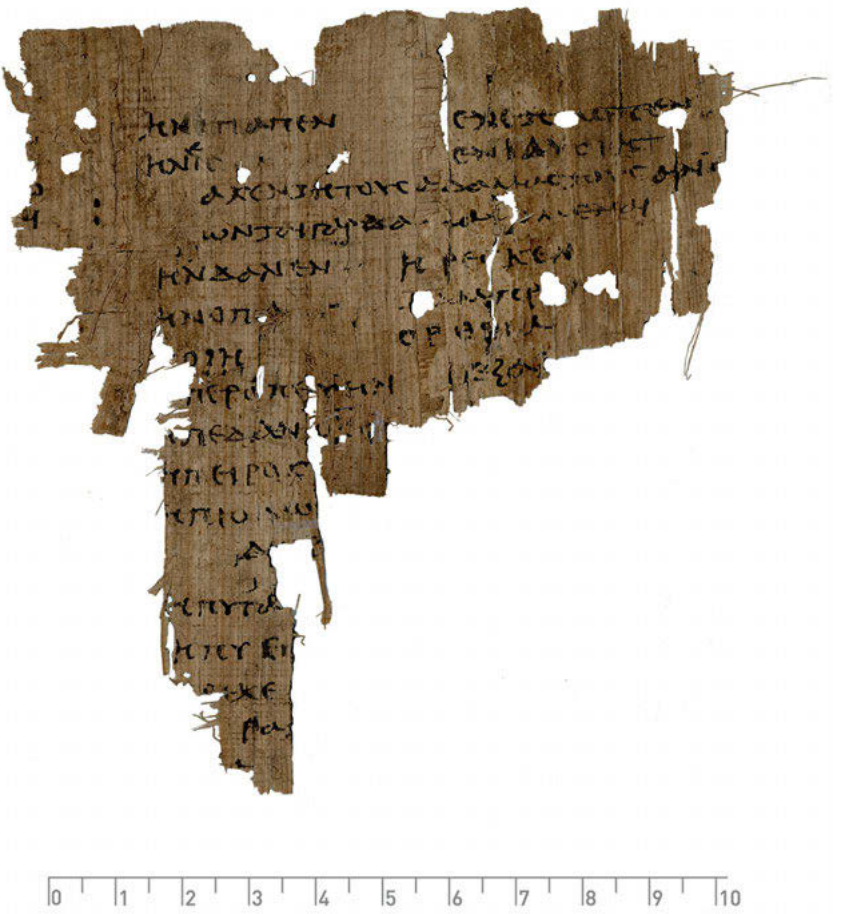

Fig. 8: PSI XVII 1669
(c) Istituto Papirologico "G. Vitelli", Università degli Studi di Firenze.

Such textual tools were surely useful to teachers and students, but they circulated even outside schools, as copies of them are often found in private 'libraries', collections of texts once belonging to individuals who were not involved in teaching. Just one example: Dioscorus – a notary who lived between Aphrodito and Antinoupolis in the age of Justinian, and who enjoyed writing enchomiastic poetry, with results that disappointed more than one historian of ancient Greek

literature[61] – had a good library which he inherited from his father, and which comprised at least works by Menander (he was the owner of the famous Cairo codex including the *Samia*, P. Cairo inv. JdE 43227),[62] Eupolis (whose work, alas, survives only on a small scrap),[63] together with the *Iliad* (P. Aphrod. Lit. I) and a huge selection of *scholia minora* on the *Iliad*, written at least two centuries earlier (P. Aphrod. Lit. II).[64]

A well-educated individual, or *pepaideumenos*, could not live without Homer or afford to lose the familiarity with Homeric poetry he had laboriously acquired during his studies. This was a rule not only for top members of the local elite, but also for individuals with an average or medium-low education, such as the soldier Strato or the dozens of unknown scribes who transcribed more or less correct Homeric verses on pottery sherds or strips of papyrus, or on other documents they had in their hands. Familiarity with the *Iliad* and the *Odyssey* was one of the pillars of a *paideia* which chiefly served as a means to define one's identity in a world where multilingualism was the norm, and civic structures were controlled by a remote absolute power that was difficult to reach, and often hostile.

It is not easy to find the starting point of this 'Homerization' of school culture. At the beginning of the Hellenistic age, school teachers still relied on a wide array of texts. In one of the few surviving teachers' handbooks, the so-called *Livre d'écolier*, written in the second half of the 3rd century BC, the anthology of passages to be used with students comprises only a short section of *Odyssey* book 5, together with verses from Euripides, Cratinus and Strato, and some epigrams by unknown authors.[65] More Homer crops us in the 2nd-1st centuries BC, when we find some of the earliest reading tools for the poems, possibly written for school purposes. One of the most ancient is a school 'anthology' now in Freiburg (P. Freib. 1b), written on the *recto* and *verso* of an erased document: in the last columns of the *verso* there are short pericopes, where comic trimeters by unknown author(s) follow a quote from the *Contest of Homer and Hesiod* and

61 On the place of Dioscorus in the developing of Greek literature during Late Antiquity see Agosti 2008.

62 Lefebvre 1907; Koenen *et al.* 1978.

63 Austin 1973, no. 92. The fragment is stored together with the extant leaves of the Menander codex and shares the same inventory number, JdE 43227; indeed, it came from a different codex, as confirmed by Fournet 1999, 670, though the idea that Eupolis was copied in the same manuscript as Menander is still widely accepted: see e. g. Gagos/van Minnen 1994, 20, and the description of the papyrus in the *Trismegistos* database, no. 61596).

64 Fournet 1999, 669 – 683; Fournet 2015.

65 P. Cairo inv. JdE 65455; Cribiore 1996, no. 379; Pordomingo 2010, 40 – 50, and Pordomingo 2013, 191 – 204, no. 28; Meccariello 2020.

some verses from *Iliad* 5; on the other side, an Homeric glossary was added (P. Freib. 1c).[66]

We cannot exclude that the production of such tools and the focus of grammatical teaching on the Homeric texts was a consequence of the predominance of the Alexandrian approach to education, i.e. of the idea that the educational system must be centered on a 'scientific' and therefore grammatical study of texts. The various steps in the transmission of *grammatike* from the Alexandrian *turris eburnea*, where it was theorized, to all corners of the Hellenized world are yet to be reconstructed: we can only imagine that the diaspora of Alexandrian grammarians and intellectuals under Ptolemy VIII Physkon played a role,[67] although the process must already have been underway; later it was further pursued by generations of anonymous teachers, who were able to turn a specialist form of knowledge into a practical tool, which was to provide the foundations for Western culture for centuries to come.[68] Homer was one of the best means to this end.

Yet, the oral dimension was still active, especially in schools, even after such revolution in terms of cultural points of reference and despite the essential role of books.

We know that practicing one's memory was an important activity in ancient schools. Students probably learned most of the word lists – and of the tables of declensions and inflections – recorded on surviving papyri by heart; and many of them were full of Homeric words. At the same time, it is most probable that the practice of memorizing long Homeric pericopes continued. Though the extant sources are not explicit about this point, a hint is provided by some *ostraka* engraved with a series of incipits of Homeric verses: this is the case with two *ostraka* of unknown provenance now in Oxford, O. Bodl. II 2170 (Cribiore 1996, no. 193) and II 2169 (Cribiore 1996, no. 201), both of which record the beginning of verses from *Iliad* book 2, and with a tiny papyrus strip, P. Ryl. III 545, where the first syllables of part of *Odyssey* book 9 can be read (Cribiore 1996, no. 291). The many phonetic errors suggest that the verses were not copied, and the shortness of the sequences is not compatible with a dictation. Probably they were draft notes, written during the memorization process, as an aid or a way to check one's memory. We do not know whether the memorization of the verses was followed by their recitation in performances of the sort illustrated on Clas-

66 Cribiore 1996, no. 248; Pordomingo 2013, 205–208, no. 29; Bassino 2019, 77–79 (on the *Certamen*).

67 Schironi 2019, 17

68 Del Corso 2012; Montana 2015, especially 143–183.

sical vase paintings. In any case, from the Hellenistic age onward reading aloud was meant to include performative elements, according to grammarians' precepts: we may find clear instructions in this regard in the opening section of the *Ars* by Dionysius Thrax, who notes that prose and poetry must be read by "taking care of declamation, of prosody and of textual sections", while epic also had to be recited "with energy" (Dion., *Ars* 2).[69]

Such training was bound to make at least a little Homer take root in the souls of anyone who took even just the first steps along the path of grammatical studies.

What seems to disappear after the Classical age is the key role of *epos* in school competitions. Starting in the Hellenistic age, as we know mostly from epigraphic and literary sources, the tradition of scholastic *agones* was redefined in a more systematic way. During the Hellenistic period it was mostly associated with specific forms of evergetism, designed to allow large sections of the population to achieve some literary education, as we know thanks to inscriptions coming from different parts of the Hellenized world;[70] and in the Roman age there were competitions among *paides* or *epheboi*, connected also with the functioning of the *gymnasia*.[71]

As we may see from encomiastic inscriptions scattered across different regions of the Greek speaking world and spanning several centuries, in such agons musical and poetical competitions played a relevant role, but there was not a distinctive place for Homeric poetry. In school competitions, the status that once belonged to *epos* was now assigned to other genres: Hellenistic catalogues insist on musically oriented performances, such as *kitharodia* or the recitation of passages from comedies or tragedies (see e. g. CIG 3088, from Teos),[72] and later, during the Roman age, together with music, rhetoric achieved a special position, especially

69 Rispoli 1991; Cavallo 1998, 45 – 52; Del Corso 2005, 21 – 30.

70 D'Amore 2006; Del Corso 2007; Scholtz 2007.

71 D'Amore 2015.

72 Extant evidence is surveyed in Del Corso 2007, 162 – 176. The most detailed catalogue is CIG 3088, from Teos, which lists the subjects which were part of the annual *apodeixis* (a public performance, where the best students were awarded): for *paides* it refers to ἀνάγνωσις (reading), καλλιγραφία (calligraphy), μελογραφία and ῥυθμογραφία (both related to the study of musical notations), as well as the performance of passages from comedies and tragedies and the study of κιθαρίς; older boys moreover had to show their proficeincy also in drawing and in the performance of other literary genres, indicated with the obscure word ὑποβολή (possibly related to rhetoric, as suggested in Del Corso 2007, 173 – 174). In extant catalogues the evidence for students performing epic in public agons is quite limited: anyway, one inscription from Chios (CIG 2214) mentions the ῥαψωδία, which clearly refers to the perfomance of epic poems (Del Corso 2007, 175).

in its simplified form as *progymnasmata* (the most popular activity being also one of the most basic, namely the composition of prose or verse *encomia*).[73]

Public performances of Homeric verses are nonetheless attested until a rather late age. At Delphi and in Boiotia professional rhapsodes continued to engage in poetic duels from the 3rd century BC to the beginning of the Imperial age;[74] during the reign of Antoninus Pius, one Rhodios, "poet of countless victories" (πλειστονίκης), and one of the leaders of the worldwide guild of Dionysian *technitai*, was honoured in Ephesos with an onorary decree, where he is called μελοποιός and rhapsode of the Divus Hadrian (IK Eph. I 22). However, schoolboys were not required to learn such ways of performing epic poetry: Homer was the beginning of the curriculum, but the point of arrival was rhetoric, the skill of giving words and concepts the right and most correct form, by using either poetry or prose. *Epos* still stood as an essential background, marked by the peculiar convergence of book culture and oral culture. Hence, despite the monotony of the school routine, for centuries epic endured as an unparalleled reservoir of poetic dreams, useful for people who were proud of their Greek heritage, but who for the most part had never caught as much as a glimpse of the coastline of Greece.

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73 Relevant epigraphic evidence collected in Pernot 1993, 84–89; the typical competitions in musical *agones* are well discussed in Wörrle 1988, 227–258, focused on the specific case of the *Demostheneia*, a festival held in Oenoanda and founded in early 2nd century AD. On the practice of *progymnasmata* in Roman schools see, in general, Webb 2001, Stramaglia 2010, Longo 2020, Fernández Delgado/Pordomingo 2020.

74 At Delphi the programme of the competitions held during the 'Aitolic' *Soteria*, the festival reorganized by the Aitolians after the defeat of the Galatians led by Brennus in 279 BC (see Nachtergael 1977; Champion 1995; Della Bona 2017, 42–43), included regularly performances by *rhapsodes:* see e.g. FD III, 4, 127 (around 226 BC) and 128 (around 223 BC). The activity of rhapsodes in Boiotian festivals is attested in inscriptions ranging from the 1st century BC (IG VII 416, from Oropos) to the 2nd AD (IG VII 4151, from Akraiphia); see Manieri 2009, 243–245, no. Oro. 16, and 123–125, no. Acr. 22.

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Livio Sbardella

Muses and Teachers: Poets' Apprenticeship in the Greek Epic Tradition

Abstract: The Greek epic tradition, starting from the Homeric poems and those of the *corpus Hesiodeum*, often speaks of itself by referring to singers (*aoidoi*), but very little information is provided about how the singers learned their art. The main explanation for the phenomenon lies in the principle of poetry's authoritativeness, which is a crucial one for all oral traditions and is especially ensured by the relationship between the poetic message and the divine sphere. But, upon closer scrutiny, certain pieces of information emerge when we read between the lines of some of the main, well-known passages in which the Greek poetic – and particularly epic – tradition speaks of its origins and its first mythical or legendary representations. And these pieces of information bring light both on the evolution of the cognitive processes of the singers and on the growth of Greek epic tradition.

Keywords: Greek epic poetry; singers; apprenticeship; cognitive processes.

1 An 'Opaque' Tradition

The Greek epic tradition, starting from the Homeric poems and those of the *corpus Hesiodeum*, often speaks of itself by referring to singers (*aoidoi*), i.e. poets, who are certainly portrayed in mythical terms, yet reflect real features and historical developments within this tradition. Much is said about the contents of their songs, their modes of performance, their social prestige, and their relationship with the public; by contrast, very little information is provided about how they learned their art: the tradition is largely reticent, or at any rate 'opaque', when it comes to this particular detail. This becomes even more evident when we compare Greek culture with other ancient, medieval, and modern oral cultures, which seem to display greater transparency concerning apprenticeship into the art of song or storytelling.

To consider only some examples, in ancient India the Brahmins – the custodians of the Vedic texts' tradition, which for centuries remained exclusively oral – were structured as a priestly caste who officiated rites and were responsible for places of worship. Divided by villages, towns, and cities on a hereditary basis, they employed mechanisms for the transmission of knowledge that were not divulged but were socially acknowledged. In the Middle Ages, among the

 https://doi.org/10.1515/9783110751987-010

Germanic and Anglo-Saxon peoples, scops or skalds, who were in charge of their oral heritage of epic-eulogistic poems, formed an elite selected by the sovereigns and explicitly entrusted with the transmission and performance of such poems. Among the Gaelic-speaking peoples, the Scottish *bardd* and Irish *fili* were organised into guild-like family groups that, from generation to generation, passed down a hereditary form of apprenticeship in their poetic tradition and lore that is explicitly described in the sources. In the modern age, comparative studies on oral traditions around the world have shown that, for certain peoples in Central Asia and Africa, the art of oral poetry is connected to explicit or even vaunted processes of apprenticeship: among the *manaschi* of Kyrgyzstan, the best reciters, while claiming to have discovered a 'vocation' for poetry (often through dream apparitions or other signs), usually recall the name of their "great *manaschi*", which is to say the teacher who first introduced them to the art of epic song through long sessions of reciting *Manas*. Finally, the *griots* of Senegal train in genuine schools or poets' associations that are set up on a family basis, hierarchically organised, and officially recognised.[1]

The reticence or opacity of Greek culture when it comes to apprenticeship in the art of oral poetry is not limited to the epic tradition, but also applies to lyric poetry, although in this case it is necessary to take account of the fact that the texts have mostly reached us in a fragmentary form. In direct or indirect accounts about lyric poetry and its performers, no mention is ever made of the way in which this skill was acquired. It is only in the 5th century BC, which is to say well into the Classical Age, that we find a choral lyric poet, Bacchylides, acknowledging that poets have always learned their art from someone (fr. 5 Maehler). However, it is significant that a contemporary of his, Pindar, possibly engaging in a polemic with Bacchylides himself and with the latter's uncle Simonides, insists in claiming that his poetic wisdom does not stem from anything he has learned, but comes naturally to him, and that apprenticeship is typical of mediocre poets (*Olympian* 2, 86 – 87).[2]

1 For this comparative information on oral poetry traditions and the extensive bibliography on the topic, I will refer to my succinct overview in Sbardella 2006, especially 12 – 16, 83 – 87, 109 – 119, along with Knipe 2005 on the Brahmins' social organisation in ancient India, and van der Heide 2008 on the *Manas* and *manaschi* tradition in Kyrgyzstan; many other useful references on modern oral cultures around the world, in addition to the few provided here purely for the sake of example, may be found in Finnegan 1992 and – specifically on Central Asia and Africa – in Reichl 2000 and Okpewho 1992.

2 On the much-debated interpretation of this passage in Pindar and the subjects involved in his polemic, I will refer to Catenacci 2013 in Gentili *et al.* 2013, 51 – 53 and 410 *ad* vv. 86 – 88.

However, there is one piece of evidence that makes this element even more relevant with respect to the epic tradition. The names of great singers transmitted by the Greek epic tradition – from Thamyris to Demodocus and Phemius, from Homer to Hesiod – are all speaking names attributed to figures who, as already noted, belong to the realm of myth or legend. This attests to the fact that, on the one hand, the tradition in question developed over the centuries through generations of completely anonymous poets and, on the other, gradually emerged out of this anonymity by devising representative figures to whom it assigned symbolically charged names:[3] Φήμιος, from the root *phem-/pham-* of the verb φημί and of nouns such as φήμη and φῆμις, is clearly connected both to the poet's speaking and recounting and to the social standing the poet acquired through this activity; Δημόδοκος alluded to the respect shown by the whole people, as well as by the aristocratic elite, towards the authoritative figure of the poet; Θάμυρις and Ὅμηρος, both of which derive from etyma related to public gatherings, bear witness to the epic singers' activity and to their large audience on public festive occasions, directly so in the former case and indirectly in the latter, via the collective term Ὁμηρίδαι; Ἡσίοδος probably comes from the root of the verb ἵημι, "to emit", and αὐδή, "voice, word", which gives us *hesi-wodos*, "he who emits the voice or word" – a way of describing the poet's ability to lend vocal expression to the lore transmitted by the epic tales.

Why, then, did a tradition that sought to throw light on itself through the creation of prestigious and authoritative figures who could be credited with its origins not also care to explain how these epic singers were trained and learned their art? The main explanation for the phenomenon, albeit probably not the only one, lies in the principle of poetry's authoritativeness, which is a crucial one for all oral traditions and is especially ensured by the relationship between the poetic message and the divine sphere. Although a significant research strand traces the origins of the Greek poetic tradition back to the great cradle of the Indo-European peoples,[4] there is a significant difference between Greek culture and the other ancient cultures that had the same ethnic and linguistic origin: from its very dawn, it stood out as a more 'secular' culture which did not include a clergy, such as a priestly class comparable to the Brahmins of Aryan India, the

3 Here I will only refer to part of the extensive and consolidated bibliography on the topic: Durante 1976, 186–203; Càssola 1991, XXIX-XXXV; West 1999, 374–376; Nagy 2009, 287–288; Sbardella 2012, 18–20.

4 Among the most important contributions on the topic, I will recall in particular the monographs by Durante 1976 and Watkins 1995.

Iranian Magi, the Roman *flamines*, or the Celtic druids.[5] The presence of a clergy, who in some of these cultures were also entrusted with the execution and transmission of a significant part of the traditional poetic heritage, ensured the authoritativeness of poetry by connecting it to a body of lore and skills whose custodians were closely and publicly associated with the divine sphere. This was not the case in Greek society, where no one could boast of enjoying a stable and constant relationship with the divine sphere. In the Greek world, poets could only conceive of a relationship with the divine which constituted the best assurance of their poetry's authoritativeness in terms of a temporary encounter that lent them – and other similar figures (such as the *mantis* and the *chresmologos*) – a role as intermediaries between the divine realm and the human one. The divine agent which brought this contact about was the Muse (Μοῦσα, from the same root *ment-/mont-* as the Latin *mens*), a supernatural projection of the social group's collective "memory" to which the poetic message was addressed; and this message was believed to pass from the divine to the human sphere through the poet's physical mediation.[6] Consequently, within this framework the process of teaching/apprenticeship in the art of poetry in its articulate, fully human dimension represented a complicating factor that had to be either glossed over completely or left in the background by emphasising the idea of poetry's divine origin – the only guarantee of the poetic message's authoritativeness. This explains the information's opacity.

2 Reading Between the Lines

Upon closer scrutiny, certain pieces of information emerge when we read between the lines of some of the main, widely studied passages in which the

5 Evidence of priestly figures with exclusive roles does not emerge from either Linear-B tablets or Mycenaean Age iconography, and in 2nd-millennium BC Greek society there was no clear-cut distribution between civil, religious, and military functions (see Adrados 1992, 101–102 and 110–115). Even after the later developments in Greek civilisation, as attested from the Homeric poems onwards, the ἱερεύς, -εια was a performer of rituals and custodian of places of worship that in many cases was quite replaceable, through the transfer of his/her priestly functions to other figures. Burkert 1985, 95 concludes that "Greek religion might almost be called a religion without priests: there is no priestly caste as a closed group with fixed tradition, education, initiation, and hierarchy".

6 The compelling sociological definition of the Muse as a divine representation of the social control exercised over the poet (see Svenbro 1984, 34–48) also helps define the complex mechanism for legitimating the authoritativeness of poetry that connected the poet, as an intermediary, to the two spheres: that of the (divine) origin of poetry and that of its (social) destination.

Greek poetic – and particularly epic – tradition speaks of its origins and first mythical or legendary representatives.[7] These are mostly implicit elements which nonetheless help outline a picture – however summary and patchy it may be – of the learning and apprenticeship processes in which epic singers were involved.

Iliad 2, 594–600: Thamyris Challenges the Muses

This passage provides a composite view of the art of oral poetry. The punishment which the Muses inflict on the Thracian singer, and which is both physical (blindness) and intended to deprive him of his art (παῦσαν ἀοιδής [...] ἀοιδὴν / θεσπεσίην ἀφέλοντο καὶ ἐκλέλαθον κιθαριστύν), is still strongly connected to the basic idea that poetry belongs to the divine sphere – that it is not something independently owned by the poet. However, the challenge which Thamyris throws at the Muses reveals the poet's pride in his own creative ability (the verb εὔχομαι at v. 597 implies the concept of bragging), which entails an awareness that his poetic skills do not depend on the gods but were independently acquired by him.[8] Moreover, Thamyris is described as a wandering poet, who – unlike other Homeric figures (Phemius, Demodocus) – is not engaged in a stable relationship with a local aristocratic elite; hence, he has no need for a specific social group to see recognised the authoritativeness of his poetry, and this enables him to 'carry' his own poetic skill as a technical possession that is not bound to exclusive social relationships.[9] What begins to emerge here is the idea that there is an entirely human level of the oral poetic art's apprenticeship, even though it still powerfully contrasts with the ancient view of the poet as an intermediary who is subjected to divine power. The training/apprenticeship process is only adumbrated, without specifying how it actually occurs.

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7 For an overall analysis of the most important passages with reference to the poetic tradition of the Archaic and Classical ages as a whole, see the still useful volume Lanata 1963; for a more specific analysis of Homeric epic, see Grandolini 1996, but see also Brillante 2009.

8 Svenbro 1984, 48–49 detects in Thamyris a form of dependence on the divine sphere which, unlike in the cases of Phemius and Demodocus, manifests itself through the dynamics not of submission, but of protest. While Svenbro does not develop this point any further, protest or rebellion is always associated with some form of self-awareness and claim to independence, for otherwise it would remain unaccounted for.

9 Significantly, the only other Homeric passage to mention itinerant singers (*Od.* 17, 382–385) includes them – along with other figures (the soothsayer, the healer, the carpenter) – in the category of δημιοεργοί, which is to say of craftsmen specialising in a *techne*.

Odyssey 22, 330–349 and 8, 487–488: Phemius, the Son of Terpis, and Demodocus, a God's Pupil

This passage is a complex one, although its development is well-known. The court singer on Ithaca fears that he will fall victim to Odysseus' violent revenge like the Suitors who have just been massacred, since he is guilty of having sung for them during the hero's absence. He thus turns to Odysseus and begs him to spare his life with two arguments: he was forced to perform for the Suitors against his will, and he is the custodian of a skill, the art of poetry, which would be lost with his death. The idea of the loss of the poetic ability, which would cease to exist upon the physical extinction of he who possesses it, seems to imply that this skill cannot be transferred via teaching/apprenticeship; and this point is developed further through the claim θεὸς δέ μοι ἐν φρεσὶν οἴμας / παντοίας ἐνέφυσεν, which describes poetic inspiration as the material transfer of the "paths of song" from the divine to the human sphere. And yet, the contextual use of the debated term αὐτοδίδακτος leaves no doubt as to the fact that the skill in the art of song that Phemius boasts about also includes an aspect related to teaching/apprenticeship. This component can partly be understood as a spontaneous drive towards the art of song,[10] but partly also to mean that the epic singer has learned the art on his own, which is to say as the sole custodian of the teaching received (in accordance with the meaning of the prefix αὐτο-, which expresses exclusiveness), in a context in which the singer alludes to a training phase in addition to divine inspiration.[11] Indeed, an element that is usually overlooked in the passage's overall interpretation is that Phemius' name is mentioned in an opening, and hence emphatic, position through the speaking patronymic Τερπιάδης (v. 330), i.e. "son of Terpis (i.e. "pleasure, charm" from the verb τέρπω)": this may implicitly indicate the hereditariness of the talent of bringing pleasure to, or charming, others via song that was already possessed by his father, and which to some extent he has learned. If this interpretation is

10 This is the view of Lazzeroni 1994, according to whom the attributing to the poet of a natural capacity to learn and his representation as a seer and an intermediary between men and gods constitutes a link with the ancient roots of Indo-European poetry.

11 In this respect, the interpretation provided by Russo 2007, 191 *ad* vv. 347–348, is essentially correct, as within the singer's speech it draws a distinction between the technique of song and its narrative content: "il δέ (al v. 347 αὐτοδίδακτος δ' εἰμί, θεὸς δέ μοι ἐν φρεσὶν οἴμας / παντοίας ἐνέφυσεν) pare connettivo piuttosto che avversativo in quanto Femio descrive due aspetti (o fonti) dell'abilità poetica complementari tra loro: αὐτοδίδακτος allude alla fase in cui l'aedo acquisisce consapevolmente le proprie capacità e la padronanza delle tecniche verbali, ritmiche e musicali che gli consentono di esibirsi con successo nella recitazione, οἴμας / παντοίας ἐνέφυσεν si riferisce ai vari racconti presenti nel patrimonio tradizionale".

correct, then in this case, too, the passage does not present an unambiguous conception of the art of song's acquisition; rather, like the previous passage, it displays an attempt – which is taken further here – to combine two different conceptions: one entails an educational aspect, which it identifies with initiation in a family context according to an individual and genetic system of the art's transmission from father to son or from one relative to another, which was typical of many oral cultures. Phemius therefore positively stands out in Odysseus' eyes for three good reasons: because he has shown a natural propensity for the art of oral poetry; because he was born into the trade and inherited/learned an exclusive skill from his father; and because he has gained inspiration for the narrative contents of his art from a god.

In the *Odyssey*, the verb διδάσκω is also used with reference to the poet's skills when, in Book 8, before 'provoking' Demodocus into improvising on a theme he has chosen, Odysseus praises his skill by stating that Apollo or the Muse herself instructed him, ἐδίδαξε (vv. 487–498); in the same context, the verb is used shortly before as well, again by Odysseus, in relation to all singers, to whom the Muse οἴμας [...] ἐδίδαξε (vv. 480–481). A detail seems to reveal that here, too, the verb is not used with the generic meaning "to inspire", but rather alludes to the actual teaching/apprenticeship process which characterised the actual training of poets, while transposing it onto the level of the relationship between a human subject (who learns) and a divine one (who teaches): this is the only case in Homeric poetry where the male figure of Apollo is introduced as an alternative to the female one of the Muse.[12] This might be an allusive feature intended to create a greater adherence to the reality of poets' most ancient form of training, which must have occurred through an exclusively male relationship, between a father and his son (as in Phemius' case), or at any rate between a teacher and his pupil.

Hesiod, *Theogony* 22–28: the Singer Learns from the Muses

Here, in the proem to Hesiod's *Theogony*, the didactic component which manifests itself through the teaching/apprenticeship dynamic, is made fully explicit: at vv. 22–23, the verb ἐδίδαξαν, if taken in its primary semantic meaning of "(they) taught", expresses a process of transmitting the art of song from the Muses to the poet, which enabled a mere shepherd to acquire poetic skills through a genuine form of apprenticeship. The *communis opinio* according to

12 See also the commentary in Hainsworth 2007, 299 ff. *ad loc.*

which the verb proleptically alludes to the episode of a single epiphany from the goddesses to the poet, in the context of which they "inspired" his song, is probably the result of a textual stratification that only at a later stage led to the creation of a single scene with a single human subject (Hesiod) via the conflation of two different scenes, with two different human subjects:[13] the legendary singer (Hesiod), who in the past learned poetry from the Muses (vv. 22–23), and the rhapsode, who in the present is continuing this poetic tradition and on whom the Muses have bestowed the trade's attributes (vv. 24–34).[14] The second highly noteworthy element is the collegiality of the Muses, who teach Hesiod the art of song as a group. Apprenticeship here starts to take the form not of a 'one-to-one' relationship, but of one within a group: on a purely human level, the neophyte who learns the art of song does so by being in touch with a group of expert singers, each of whom can impart specific skills to him. In this case too, the transposition of the process onto the divine level (the Muses themselves as teachers) represents a way of anchoring the narrative in the more ancient conception of poetry's divine origins; by now, however, the process of apprenticeship and training has more explicitly become part of the representation that the epic tradition offers of itself.

Hesiod, *Erga* 650–659: the Competition between Local Poetic Traditions

As we have seen, Hesiodic epic bears witness, in a mythical form, to the process of apprenticeship within organised groups of singers. However, it also presents evidence of contact between different local poetic traditions. In the passage from the *Erga* in question, the anonymous singer, who represents the epichoric tradition of Hesiodic poetry in Boeotia, states that he voyaged to nearby Euboea to take part in an *agon* to celebrate the institution of a local aristocrat's (Amphidamas) heroic cult. The precise relationship which this passage establishes with the verses from the *Theogony*'s proem previously analysed is evident, as it mentions Mount Helicon as the place in which the poet was initiated into the art of song by the Muses, and where he returns in order to dedicate the material outcome of his victory in the poetic duel to the goddesses. However, no mention is

13 Even West 1966, 161 *ad* v. 22, who still interprets vv. 22–23 as standing in continuity with the following scene describing the Muses' epiphany to Hesiod (vv. 24–34), is forced to admit that "perhaps Hesiod is here thinking not of a single epiphany but of a period of practice".

14 As regards this interpretation of the passage and the elements supporting it, I will refer to Sbardella 2016a, which also provides an overview of the extensive bibliography on the topic.

made of Hesiod, as the aim is merely to implicitly recall his authoritative figure.[15] The text does not explicitly state whom the Boeotian singer met in the *agon*, but the significant allusion to the Trojan epic cycle's themes (the Achaeans' departure from Aulis) points to a context in which epic tales on such subjects were also recited.[16] What is described, in any case, is a direct engagement between the representatives of different epichoric epic traditions in which the Boeotian poet proves his excellence, but also listens to other "paths of song" (οἴμαι), which is to say other epic tales and other ways of expressing them. By this stage, the learning of this art and the development of the epic tradition no longer occurs exclusively within epichoric poetic groups, but also through mutual contacts between such groups.

Pindar, *Isthmian* 4, 37–42: Homer's 'School'

In *Isthmian* 5, the lyric poet recalls Ajax's suicide, caused by a competition over the possession of Achilles' weapons. In the verses in question, Pindar then argues that Homer honoured the hero's memory by teaching posterity (λοιποί) to sing his virtue κατὰ ῥάβδον, "according to the sequence of the rhapsode's staff". As I have already suggested elsewhere, the λοιποί whom Homer teaches to sing Ajax's glory should be identified as the rhapsodes of the later epic tradition: more specifically, the Homerids of Chios, who claimed to be his direct "descendants".[17] The passage therefore presents the Homerids' organisation as a genuine school for rhapsodes that was emerging in the late Archaic Age (late

15 In other words, I believe that this passage and others in Hesiod's poetry (*Theogony* and *Erga*) are to be interpreted not as providing real biographical data connected to Hesiod's name, but rather as different stages in the construction of a pseudo-biography by the rhapsodic tradition that looked back to this prestigious name (see Sbardella 2016a and Sbardella 2016b).

16 As rightly noted by Ercolani 2010, 376 *ad* vv. 651–653, "la menzione di Aulide richiama il collegamento con il racconto della guerra di Troia". The idea of an engagement with Homer is only a later tradition that can be traced back to the *Certamen Homeri et Hesiodi*, which according to some scholars was inspired precisely by this passage from the *Erga* (with regard to the whole issue, I will only refer to West 1978, 319 *ad* vv. 650–652); however, this tradition is translating in pseudo-biographical terms – associated with Homer and Hesiod – an engagement between Ionic and Boeotian singers that really did occur and which probably found in late-8th and early-7th-century BC Euboea one of its most important settings (according to a research strand inaugurated by West 1988 and highly influenced by archaeological finds at Lefkandi, Euboea – with its local hero cults – was already one of the major centres for the Homeric epic tradition's development in the Dark Ages).

17 See Sbardella 2007, 84–85 and Sbardella 2012, 241.

6th-early 5th century BC), as is also confirmed by other sources.[18] In the context of this school, which traced its origins back to a mythical teacher and forebear, the latter was regarded as the source of both the repertoire of songs performed and of the technique used for their performance: the image projected is that of a multiplicity of poets who learned their art from a single, prestigious figure. In reality, each new rhapsode would learn his trade from many different expert poets according to a system of training within a group that – as we have seen – already emerges from earlier sources, although by this period the group tended to represent and credit itself as a genuine school.

All in all, the picture that emerges from a reassessment of this range of testimonies may be outlined as follows. From its origins, the Greek poetic tradition provides some information – which is never explicitly formulated, but only conveyed through various degrees of allusiveness – about epic singers' training. The elements which emerge, not least by considering the relative chronology of these testimonies, would appear to fall within a specific line of development. Originally, a process of individual apprenticeship was in place based on a relationship between a teacher and his pupil, particularly within the same family (father-son, relative-relative). This process is retrospectively represented in Homeric epic with reference to the earliest phase of the tradition, which in all likelihood can be traced as far back as the 2nd millennium, when the stable bond between certain poets and noble courts must have favoured a largely 'closed' transmission of poetic skills, insofar as this ensured a socially privileged status. This stage was followed by a more complex form of apprenticeship within a group, which probably became established in the period between the Hellenic Dark Ages and the early Archaic Age, when the loss of stable relations between poets and aristocratic courts brought about more open social conditions for the transmission of the art of song. Finally, no earlier than the 6th century BC, some of these groups were organised into genuine schools.

3 Formulaic Diction, the Epic Repertoire, and Cognitive Processes

How does all this fit with what we know about the processes of the Greek epic tradition's development? One important research strand which flourished in the second half of the 20th century has shown that the origins of this tradition,

18 For an overview and detailed discussion of these sources – the most notable being the scholia to vv. 1 ff. of Pindar's *Nemean* 2 (III, 29 – 31 Drachmann) – see Sbardella 2012, 5 – 63, 253 – 257.

which was already consolidated in terms of its mythical themes and metrical and expressive structures, can be traced back to the Mycenaean Age during a continental phase in the 2nd millennium.[19] In terms of epic diction's linguistic features, this phase was characterised by the coexistence of Mycenaean and the Aeolic dialect or, according to other scholars, by the use of an Achaean dialect understood as a mixture of epichoric tongues from the Peloponnesian area. In addition to Mycenaean, this also included Arcadian, and then Aeolic was superimposed on it in the Sub-Mycenaean period (c. 1200 – 1100 BC).[20] As a consequence of the colonisation of Asia Minor's coastal area over the course of the Dark Ages, the continental phase was followed by that of the transfer of the epic song tradition into a colonial *milieu:* here, epic diction was partly restructured on the basis of expressive elements from the East-Aeolian area, and especially of a predominant Ionic dialectal component. Particularly in the wake of A. Hoekstra's studies,[21] this phase has been described as one marked by the modification of formulaic prototypes, which is to say the most ancient expressive structures of formulaic epic diction, on through a range of innovations connected to specific phonetic, morphological, and lexical features of the Ionic dialect. The most important of these innovations were: the intermittent use of digamma; quantitative metathesis, particularly for the genitive singular of masculine stems and the genitive plural of feminine stems in long -α; and the use of the ephelcystic -ν. Alongside these major innovations, we find: *diektasis*, or the stretched pronunciation of thematic vowels; the extension of the third person plural verbal ending -σαν to athematic radical aorists and passive aorists; and the use of the genitive singular in monosyllabic -ου for second declension stems as the outcome of a bisyllabic form in -οο, which has left some traces in poetic diction, where it occurs alongside the more ancient, Aeolic-Mycenaean form in -οιο. To this we should add the adaptation and enrichment of the expres-

19 On myth, see the pioneering studies by Nilsson 1932 and Nilsson 1933, which first raised the question of its Mycenaean origins, even before the decipherment of Linear-B documents (1953); among the studies produced after this decipherment, see especially: Page 1959 for an overall historical-philological analysis; Ruijgh 1957 and Ruijgh 1985, Durante 1971 and Durante 1992 on Mycenaean phonetic, lexical, and formulaic traces in Homer's language; Hoekstra 1965, Wathelet 1970 and Wathelet 1979, Janko 1982 and Janko 1992, 8 – 19 on the stages of the linguistic-dialectal evolution of Homeric formulaic diction; Hoekstra 1981 on the protohistory of the Homeric verse (the hexameter); see now Passa in Cassio 2016, 139 – 196 for a clear, up-to-date overview of the whole issue.

20 For this second hypothesis, see Ruijgh 1957 and Ruijgh 1985.

21 See Hoekstra 1965 on the diction of the Homeric poems and Hoekstra 1969 on that of certain Homeric hymns; on the systematic extension of the same method to archaic epic as a whole, see Janko 1982.

sive range through the formulaic flexibility mechanisms studied by B. Hainsworth:[22] mobility of formulas, i.e. their free insertion between the various *cola* of the verse; their alteration in terms of metrical structure via morphological innovations or a different verb order; and their expansion through the addition or intrusion of new elements (adjectives, adverbs, articles, verbs, etc.).

In the Dark Ages and early Archaic period, this whole range of innovations in Asia Minor's colonial milieu increased the expressive potential of epic diction: a phenomenon which cannot be measured precisely against the more ancient phase, but which can be evaluated as a whole by considering its indirect effects. Indeed, in continental Greece, where it had first emerged in the 2nd millennium, the epic tradition continued to exist for some time in parallel to – and perhaps quite independently of – its development in the eastern Aegean.[23] It is highly significant that – roughly between the late 10th and the first half of the 8th century BC, although it is impossible to establish precise dates – the continental tradition came to almost completely conform to that of colonial Asia Minor in terms of its use of formulaic diction: the epic tradition as a whole, regardless of its local variants, conformed to Ionic diction because the increase in expressive potential which had occurred in Asia Minor was such, on both a qualitative and quantitative level, that it widely established the new, developed form of diction as a model. Some significant local traits endured at a local level, yet these did not prevent a substantial and general degree of standardisation.[24]

Another evident development which occurred over the course of the epic tradition's colonial phase concerns mythical themes. The Trojan epic described the conquest of a city in Asia Minor accomplished by Achaeans from continental Greece and the Aegean islands. The city in question, of course, is Troy, which in the 2nd millennium – which is to say in the heroic age in Greek collective memory – ruled over the coastal area of Asia Minor and the Hellespont: the very geographical area which, over the course of the Dark Ages, was settled by Greek colonists. This epic is probably rooted in some mythical tales of the 2nd-millennium epic tradition, alongside other epics that were already well-established at the

22 Hainsworth 1968.

23 The main champion of the hypothesis of a parallel, independent development of the continental and other local traditions with respect to the Ionic one is Pavese 1972, 15–169 and Pavese 1974, 57–107, according to whom the later Ionic *facies* of the diction also found in continental areas is merely a superficial phenomenon.

24 The most evident and debated case is that of Hesiodean poetry, which is to say of the epic poems in the *corpus Hesiodeum*, on which see – most recently – Cassio 2009 and Lulli 2016, to which I will also refer for a discussion of textual-critical issues and a bibliography.

time.[25] There is no doubt, however, that it acquired greater prominence and was fully developed in a colonial milieu at the beginning of the 1st millennium:[26] here, for understandable reasons related to the creation of a mythical proto-history for the processes of Asia Minor's colonisation, the tale acquired the extension known to us from the Homeric poems and from what we can reconstruct about the other poems of this cycle. Moreover, in this colonial environment the first opportunities emerged for well organized performances of this epic saga within the context of major public festivals that brought together various *poleis* from Asia Minor to celebrate and consolidate their shared identity: the *panegyris* of the Panionion at Cape Mycale is probably one of the most ancient settings in which the Trojan epic saga was extensively performed.[27]

However, within this overall development of the epic tradition an important role was also played by the aforementioned evolution of cognitive processes related to poets' apprenticeship. As far as we know, in Ionic Asia Minor, between the Dark Ages and the early Archaic Age, the most favourable historical and environmental conditions emerged for the formation of groups of singers structured as professional guilds. Here, before anywhere else in the Greek world, civic associations, such as the so-called *phratriai* that were centred on shared cults of common ancestors and found their moment of greatest civic recognition in the major annual festivals (Apaturia), displayed features markedly connected to professional and corporative – as opposed to more genetic – interests.[28] This form of social organisation promoted the formation of professional groups of various sorts, including singers' guilds, which claimed descent from a prestigious mythical figure (the Homerids of Chios from Homer, the Chreophyleioi of Samos from Chreophylus) according to a model of association that was soon exported to other areas of the Greek world. Then, as already noted, over the course

25 What I am referring to in particular are the Argonauts' epic as a more ancient 'structural' model for the *Odyssey* (see the now classic work of Meuli 1921) and Heracles' feats, with which Homer appears to be at least partly familiar, as an established epic tradition (see especially Sbardella 1994).

26 Remarks of this sort can already be found in Sbardella 2011, 31–37.

27 See the extensive monograph by Frame 2009.

28 See Maddoli 1978, 513–531; the earliest evidence for this phenomenon dates from the 7th century BC, which led Roussel 1976, especially 51–61, to adopt the extreme thesis according to which these pseudo-aristocratic groups never had any real genetic basis, but were established as secondary structures within the social order of the *polis*; however, the phenomenon must have emerged even earlier, and Jones 1987, 325 also notes that in Miletus, for example, *phratriai* were the most broadly associative forms of the civic body's organisation, not connected to genetic ties (like *phylai* and *patrai*) or territorial bonds (like *demoi*).

of the 6th century BC the enlargement of these groups and their increasingly hierarchical structure led to the formation of genuine schools.[29]

This development of the milieus and methods associated with apprenticeship must also have entailed a development of cognitive mechanisms through what we might describe as the creative hyper-stimulation of singers in group contexts. Those who learned the art from a range of teachers and who had many reference models could more directly experience and adopt the range of innovations that each of these teachers made to the traditional epic repertoire, both on the thematic level and on the formal and expressive one, and could in turn expand these innovations and transmit them to the next generation of poets. So what it is possible to reconstruct in relation to several generations of epic poets, in the period at the turn of the Dark Ages and the early Archaic Age, is an exponential growth of innovative features which were progressively introduced into the structure of epic diction through the dynamics of apprenticeship and emulation typical of organised professional groups. This growth spurt was thus followed, in the same professional groups of singers, by an effort to progressively crystallise the text – first mnemonically, and then also in writing[30] – and to arrange it into increasingly coherent narrative macro-structures intended for wide-scale performances, and typical of the rhapsodic technique.[31] In this phase, which can be placed between the middle and the late Archaic Age, the expressive broadening of epic diction did not come to a halt but was affected by the poets' more limited skill in introducing innovative features,[32] which was counterbalanced by their increased skill in performing a vast epic repertoire, chiefly arranged into fixed narrative sequences.

29 On Ionic rhapsodes' guilds and their development, see now Sbardella 2012, 5–63, with an extensive bibliography; on groups of rhapsodes in Boeotia, see Sbardella 2016a and Sbardella 2016b.

30 On the process which led from the memorisation of the text to its recording in writing, see especially Nagy 1996, 110–112 and Nagy 2002, 9–35, who however tends to regard writing as only coming into play at the end of the whole process – no earlier than the 6th century BC – almost as a kind of accidental final act, when in fact its interaction with memorisation processes must have begun long before then through prolonged and complex dynamics (see Sbardella 2012, 55–62).

31 On these rhapsodic performances, see Sbardella 2012, especially 38–63 for an overview.

32 Hoekstra 1969 has defined this as the sub-epic phase of diction's development, highlighting how it was largely marked by a decline in poets' expressive innovation skills compared to more ancient phases.

4 An Overall Model for the Development of the Epic Tradition (and Epic Diction)

Based on what has been argued so far, in what follows I will propose an overall model for the development of the epic tradition and its means of expression, formulaic diction, which also takes account of poets' forms of apprenticeship and of the transformation of their cognitive processes over time.

1. The origins: 2nd millennium, Mycenaean Age (c. 1600 – 1200 BC):

– place of origin: continental Greece, particularly the palatial kingdoms of the Peloponnese and of central-northern Greece (Boeotia and Thessaly);
– metrical form: dactylic hexameter and lyric metres;
– performance method: recitation with a musical accompaniment (although performers could also engage in singing);
– mythical subjects: epics such as that of Hercules, the *Argonautika*, tales of military expeditions along the eastern Aegean shores;
– linguistic *facies:* a Mycenaean/Achaean-Aeolic *koine*;
– formulaic diction: undefinable in terms of extension (only a very small percentage of Homeric formulas can be traced back to this phase), yet probably still limited from the point of view of the expressive repertoire;
– mnemonic effort: applied to learning and to the use of a set number of traditional expressions (formulaic prototypes);
– social setting for performances: mostly aristocratic courts;
– performance material: relatively short song excerpts focusing on individual episodes from mythical epics;
– singers' predominant social profile: an *aoidos* operating within the social fabric of palace aristocracies;
– mode of learning: the method of execution and diction were transmitted from one individual poet to another.

2. Development: Ist millennium, between the Dark Ages and the early Archaic Age (c. 1100 – 650 BC):

– place of importation: the Aeolian and Ionic colonies of Asia Minor, with significant interactions between the new colonial tradition and that of continental Greece (perhaps from the end of 10th century onwards);
– metrical form: a probably exclusive use of the hexameter;
– performance method: exclusively recitative, with the abandonment of musical instruments and a gradual tendency among singers to band into groups for collective performances;

- mythical subjects: Mycenaean-era epics continued to be performed, or new epics, such as the Trojan one, were developed on the basis of 2nd-millennium narrative cores;
- linguistic *facies:* reinforced by Aeolic elements from Asia and later largely adapted to the Ionic dialect;
- formulaic diction: significantly expanded and made flexible through considerable creativeness with respect to the traditional expressive repertoire (change of formulaic prototypes, adaptation of formulas to make them more metrically flexible, devising of new formulaic expressions);
- mnemonic effort: considerable, but marked by a substantial element of creativeness, as well as by the conservation of traditional features;
- social setting for performances: celebrations open to a broad public and whole communities;
- performance material: extensive song excerpts, encompassing broad narrative sections of epics which would be structured and ordered in the form of poems;
- singers' social profile: a partially professional and itinerant rhapsode paid for individual performances, yet not making a stable income from his work;
- mode of learning: the method of execution and diction were learned within groups of singers whereby the individual poet would interact with a range of teachers and then transmit his skills to several poets of the next generation.

3. Crystallisation: the middle and late Archaic Age (c. 650 – 500 BC)

- areas of expansion: broadening of geographical horizons to the whole Greek-speaking world (Asia Minor, the Aegean, continental Greece, colonies in the western Mediterranean), hence a panhellenic dimension;
- metrical form: exclusive use of the hexameter;
- performance method: by now strictly defined as rhapsodic and organised into professional groups;
- mythical subjects: inherited from tradition, yet pushed to their utmost limits in terms of narrative extension;
- linguistic *facies:* by now formalised, with some remaining local acquisitions (e. g. Atticisms in Homeric diction);
- formulaic diction: essentially crystallised, with some (mostly degenerative) innovations;
- mnemonic effort: considerable, yet chiefly of the conservative kind, by now influenced by writing;
- social setting for performances: celebrations open to a broad public and often involving several *poleis* (*panegyreis*);
- performance material: extensive sections of traditional epic saga or entire narrative cycles;

- singers' social profile: highly professional and itinerant rhapsodes chiefly operating within structured groups such as guilds or schools;
- mode of learning: the method of execution and diction are by now learned within a school as a genuine *techne*.

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From Oral Theory to Neuroscience: a Dialogue on Communication

Abstract: The purview of this paper is twofold: to set the theoretical framework to ground a fruitful dialogue between oral theory and neuroscience and to apply neuroscientific findings to the Homeric model of communication as shown particularly in the Odyssey, where a singer or storyteller (Phemius, Demodocus, and Odysseus) sing to an audience gathered in a banquet. A primary concern of the paper is to explore the bearing of neuroscientific research on aspects of cognition involved in interactive communicative settings, where verbal and emotional aspects are involved. It is shown that Homeric passages identify silence, enchantment and pleasure as the three interconnected factors of successful and attuned verbal communication and that they make perfect sense when seen from the perspective of neuroimaging studies, which further illuminate the cognitive articulation underlying those factors. In the enriched hermeneutic framework provided, the Homeric idea of singing, sharing and acquiring knowledge as a deeply emotional experience is shown to possess a firm ground in neurophysiology. Some prospective methodological remarks on the meta-dialogue between Classics and neuroscience conclude the paper.

Keywords: Homer; communication; empathy; neuroscience; orality.

1 Prefatory Remarks: Homeric Scholarship and Branching Out

A century ago, the Homeric quest(ion) brought Milman Parry and Albert Lord on adventurous trips to the Balkans, where the young men studied and recorded the songs of 20th century Serbo-Croatian poets, the *guslari*.[1] While conventionally marking the beginning of the so-called Oral Theory, their intellectual enterprise was at the same time a bold move that physically and epistemologically displaced the framework for understanding Homeric texts, from libraries to field-

1 Parry 1971; Lord 1960. Recordings available at https://curiosity.lib.harvard.edu/milman-parry-collection-of-oral-literature. Debate and definitions on and of orality thrive, of course; for a recent assessment see Ready 2019, 1–9.

https://doi.org/10.1515/9783110751987-011

work. Ever since, for students of Homer, to deal with orality is to branch out into unchartered scholarly territories.

Parry and Lord's scholarly *experience* itself was more influential and far-reaching, I daresay, than its specific results – and far beyond the field of Classics. By considering Homeric poems as oral poetry Parry "distanced them from traditional methods of philology and literary criticism, delivering them to a wider *anthropological* perspective".[2] As remarked by Sbardella, when Parry's research showed that the peculiar character of Homeric poems can be better explained by comparing them to the poetry of an illiterate Montenegrin storyteller such as Avdo Mededovič than to the most refined and learned philologist "the effect was like a bomb affecting fields way beyond classical philology".[3] So much so that at the very onset of his enormously influential book, *The Gutenberg Galaxy*, Marshall MacLuhan declares: "The present volume is in many respects complementary to *The Singer of Tales* by Albert B. Lord".[4]

Oral theory was, however, no anthropology *per se*. Parry, as a matter of fact, studied linguistics at Paris with Meillet; as Rossi rightly remarks, in Parry's work the anthropological perspective was "almost totally implicit".[5] If we tend to obliterate this distinction, as we do, it is because Parry and Lord's method and practice were definitely, if not declaredly, comparatist and anthropological. Only some decades after Parry's trips, in the '60s of the last century, a vibrant post-colonial awareness of culture led anthropological studies to flourish and intertwine with orality. Intellectual explorers of the likes of Ruth Finnegan, Isidore Okpewho and Jean Vansina opened the path for classicists interested in orality and willing to learn the ways of West African Bantu singers and Limba story-tellers to better understand Homeric textual practices.[6] Such a virtual travel to Africa and beyond was another powerful mind-opener and an audacious intellectual move for many Greek philologists and historians, who learned to deal with a "past transmitted by word of mouth", and to understand Herodotus with the

2 Rossi 1979, 75.

3 "Può essere spiegata meglio alla luce della comparazione con la poesia di un cantastorie illetterato montenegrino, figlio di un macellaio, come Avdo Mededovič che non dai distillatissimi metodi di analisi della più raffinata e dotta filologia, lo choc è stato talmente grande da produrre [...] un vero e proprio terremoto che si è spinto ben oltre i limiti d'interesse della stessa filologia classica", Sbardella 2006, 110.

4 McLuhan 1962, 1.

5 Rossi 1979, 75.

6 See e. g. Vansina 1961, Finnegan 1967, Finnegan 1970, Okpewho 1992.

help of African genealogists, uniting the tools of anthropology with the traditional historical methods.[7]

Ever since, oralistic approaches to Homeric poems has continually made the most from multidisciplinary perspectives, comparatism and anthropology at the leading edge, thanks to which powerful insights and paradigms have been produced.[8] Furthermore, to engage with modern and non-hegemonic cultures continues to decolonise Homer from antiquarian approaches, creating a perspective on literature far from Western ethnocentrism and displacing epic poems from their position as the first Western masterpiece of a brilliant author to that of a witness to an orally born, collective creation.[9]

This bird's eye view highlights two great seasons of orality studies and Homeric scholarship, during which the vibrant exchange that began in the 1920s with linguistics continued in the 1960s, and down to the 1990s with anthropology and comparatism; this long wave of dialogues has not ended, to be sure, but the time is ripe to open new doors and start new dialogues with contemporary approaches.

It is in keeping with this spirit and century-long tradition that we branch out to a young and promising disciplinary field, namely neuroscience, which in the last thirty years has produced a step-change in our understanding of the human mind and communication. This is not entirely new ground: Elizabeth Minchin has the merit of having introduced cognitive studies to the study of Homer; since her pioneering contributions, scholars slowly but surely have followed suit, enhancing our awareness of the potential of cognitive studies for Classics,

7 Luraghi 2001b, 10. On the impact of African oral literature on Greek history see particularly Giangiulio 2007.

8 Of course, the picture is not as irenic as it seems. Consensus on the relevance of oral studies for Homeric scholarship is not catholic, and, if in 1979 Rossi claimed "Omero non si può più leggere come si faceva prima di Parry, e in verità sono pochi ormai ad attestarsi sulle vecchie posizioni" (76 – 77), today not all scholars of Homer are as keen to look at the same broad landscape, and to see orality as fundamentally relevant to the understanding of Homer. See for example the articulated defence of Ready 2019, 9 against "M. L. West' admonishment 'to shake the oralists off our backs'", in reference to West 2003, 14, a defence which implies that orality as legitimate tool for Homerists still needs to be justified and salvaged. Consistently with the premises of the present volume, this contribution takes, rather apodictically, orality for granted; the issue however does deserve closer scrutiny, but this would largely fall outside the scope of this contribution. On this point see also Ercolani in this volume, 89 – 91.

9 See the interview "decolonizing antiquity" in Svenbro 1984, 8 – 22 (the Italian edition of Svenbro 1971). See also Rossi 1979, 75, on oral theory assigning to Homeric poems a totally different status than that of all other works classical philologists dealt with, "uno *status* totalmente diverso da quello di tutte le altre opere con cui i filologi classici avevano a che fare".

within and without Homer.[10] In common scholarly discourse, both "cognitive studies" and "neuroscience" are used as umbrella definitions, and have come to encompass a wide and heterogenous range of disciplines, from cognitive linguistics to artificial intelligence, and whose wealth is well represented in the range of case-studies of the recent *Routledge Handbook of Classics and Cognitive Theory.*[11] While broadly following this avenue, however, this paper illustrates a more specific path of inquiry, whose scope is circumscribed to the dialogue between oral theory, Homeric studies and neuroscience *stricto sensu*, that is the specific field of neuroimaging-based brain mapping research.[12]

The purview of this paper is therefore twofold: to set the theoretical framework to ground a fruitful dialogue between oral theory and neuroscience and to apply neuroscientific findings to the Homeric model of communication.

2 Our Head from Within: The Specific Contribution of fMRI Based Research. Potentials and Caveats

Neuroscience is a very young ramification of cognitive studies and is based on the new instrumental methods of neuroimaging, and chiefly on Magnetic Resonance (MRI) and functional Magnetic Resonance Imaging (fMRI), whose discovery dates to thirty years ago. The fMRI technology uses magnetic potency for a far more accurate representation of brain activity in terms of resolution and dynamic data then was formerly available with electrophysiological monitoring methods (EEG) and PEC (based on radioactive tracing).[13]

In 1990 the fine-tuning of BOLD-fMRI by Seiji Ogawa represented a significant improvement in our representation and mapping of mental processes and opened the possibility of observing our mind "from within".[14] The nuts and

10 See Minchin 2001.

11 See Meineck *et al.* 2019a. On the development of cognitive studies see Gozzano in this volume, 1–17.

12 For important perspective on cognitive studies and oral poetry see Antovic/Pagan Canovas 2016, and particularly Minchin 2016.

13 See Ogawa/Sung 2007.

14 This accomplishment was built on the former invention of MRI by, foremost, Raymond Damadian, Paul Lauterbur and Peter Mansfield. Interestingly, on the precedence of the patent there are competing claims; Lauterbur and Mansfield were bestowed with the Nobel Prize in 2003 for the invention, while Damadian, who scanned the first MR image in 1977, was excluded. As Filler 2009, 13, pointedly argues: "when the Nobel Prize for invention of MRI scanning was

bolts of this instrumental method is to scan which brain areas are activated in correspondence with a specific cognitive task performed during the experiment; the activity is established only indirectly, by the variation of the level of oxygen present in the blood vessels (oxyhaemoglobin) of a given brain site.[15] The higher the level of oxygen required, the greater the purported neural activity is assumed by fMRI analysis. In this, fMRI builds on the century-old finding that increase in blood flow is connected to a detectable increase in brain weight and the subsequent inference that the activity of our brain demands more energy – haemoglobin – than any other part of our body. This discovery must now be credited to Angelo Mosso and his brilliant experiments of the 1880s; the spreading of his findings, however, was hindered by the limited knowledge of Italian in scientist milieus of the time, and the attribution is commonly assigned to the British scientists Charles Smart Roy and Charles Scott Sherrington who arrived at the same conclusions as Mosso a decade afterwards.[16]

FMRI-based analysis seeks to establish the general correspondence between the sites activated in our brain and a specific activity, be it sensorimotor, linguistic or otherwise, in order to detect the role and function of underlying brain sites and networks. Its scientific impact is major and its application has been both extensive and debated in diverse fields, from medicine to humanities and social sciences, from language to emotions and music. In recent years, in particular, theatrical study and Greek theatre have found a particularly thriving application of neuroimaging, with the work of Roberto Nicolai, Felix Budelmann, Pat Easterling, and, more systematically, Peter Meineck.[17]

Our primary concern here is to explore the bearing of neuroscientific research on aspects of cognition involved in interactive communicative settings, where verbal and emotional aspects are involved. Before turning to an experimental application of neuroscientific findings to Homeric texts, however, it is imperative to state an epistemological premise and a caveat.

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announced in 2003, Damadian was snubbed and the award went to two more traditional scientists, Paul Lauterbur and Peter Mansfield. Damadian is a creationist so he accepts magical and divine intervention in biology. That has made him an intellectual martyr for the creation science crowd. Nonetheless, his omission from the Nobel Prize is a Rohrsach test meaning different things to different observers". For the history of fMRI see also Poldrack 2008.

15 "FMRI is based on BOLD (Blood Oxygenation Level Dependent) signal change that is due to the hemodynamic and metabolic sequelae of neuronal responses", Ogawa/Sung 2007.

16 Sandrone *et al.* 2014.

17 See Nicolai 2007, 102–104, developed in Nicolai 2010, largely based on the mirror neuron system; Easterling/Budelmann 2010 on "reading minds"; Meineck 2017, where the contribution of brain research is used extensively to illustrate cognitive and sensorial aspects of performance with ground-breaking results.

The point must be expressed rather bluntly: fMRI based neuroimaging does *not* reveal to us the brain as such. The suggestive images produced by the machine are not the *Ding an sich*, but a scholarly, inferential representation. This warning comes from neuroscientists themselves:

> Not even the most ardent advocates of fMRI research would support a strong neurorealist viewpoint. [...] fMRI is one technique among many available to the scientist. If used improperly, it can lead to inconclusive or erroneous conclusions (like any other technique).[18]

A specific caveat must be expressed moreover since neuroscience has received growing media coverage, as enthusiastic as often acritical. The results of the brain scan performed by fMRI allow us to construct a *representation* of specific brain areas' activation during the performance of certain tasks, the degree of likelihood and indicativeness of the actual mental processes heavily depends on the protocols (mainly statistical) scientists use to transcode the thousands of snapshots (voxels) into interpretations – which fundamentally depend on epistemological premises. Ogawa, the father of BOLD fMRI, states this clearly:

> With non-invasive neuroimaging, the functional role or specificity of a site is only *established indirectly*. This is because we cannot measure the actual input to or output from a site. The only means we have for controlling the site's activation is through the external or internal stimulus we give to the brain. It is not known which aspects of the original stimulus are delivered to the site or how site-specific processing proceeds. Until we understand the information processing entailed by the local input-output relationships, we can only try to *infer* this processing by clever manipulations of the stimuli we give to the brain.[19]

However thriving and thrilling the results, therefore, they should be treated for what they are: inference and working hypotheses, not a direct account of mental processes. FMRI images come in different colours, and admittedly the impact is certainly arresting, giving the impression of accessing our mind directly, with the impending danger of exchanging the map for the territory:

> Because fMRI research carries an air of technical mystery-unlike surveys or laboratory measures of behaviour – it seems more scientific to a lay audience. The images it creates can seem like snapshots of the brain at work, especially when one glosses over the enormous conceptual gap between those images and the underlying experimental design. In any case, neurorealistic language is endemic to descriptions of fMRI studies in the popular media [...]. Several errors are common, including the overstatement of results, a failure to discuss limitations, and the tendency to treat fMRI data as uncritical proof of controversial claims.

18 Huettel *et al.* 2014, 486.

19 Ogawa/Sung 2007 (emphasis added).

> Even experienced fMRI researchers are not immune to the misrepresentation of results. A particularly common problem lies in generalizing from brain activation to cognitive process, in the form of reasoning known as reverse inference.[20]

The real challenge lies in interpretation, which in turn largely depends on paradigms: from computational models to distributed cognition, neuroscientists do not agree on their use of cognitive metaphors to explain what the mind "is like".[21] If neuroscience therefore is not shorn of doubts and debate, any scientific truth that may be claimed is by definition both changing and subject to successive transformation as research goes on. It is perhaps not altogether otiose the reminder that hard science is as historical as any, as the pivotal work of Thomas Kuhn crucially demonstrated decades ago.[22]

The historical dimension is also an important reminder not to devaluate previous brain research. As it has been noted, Angelo Mosso was aware of the same epistemological conundrums surrounding brain research, and intriguingly, "work he published more than a century ago already contains many of the major themes and difficulties that characterize today's functional neuroimaging techniques"; a sobering lesson by all means.[23]

We would better shun therefore a naive idealization of neuroscience as a new truth about the mind, an attitude largely resting upon an implicit epistemological hierarchy according to which the so-called hard sciences have a direct way of accessing the truth, a particularly resistant myth of our time, which also implies the inferiority of humanities vis-à-vis the so-called "hard-sciences". On the contrary, this contribution builds on the – admittedly grandstanding but not isolated – assumption that as far as mind and communication are concerned, it is high time to build a metadialogue between humanities and sciences, such as "to automatically collapse ontological barriers between physical, biological, mental, and social worlds";[24] we may thus compare scholarly maps and ideally draw a more capacious map which would better represent the complex phenomenon of human communication – be it "oral" or otherwise.

As I hope to show in what follows, our understanding of the cognitive procedures involved in communication can be greatly enhanced, strengthened, and

20 Huettel *et al.* 2014, 486 and 513. For more recent criticism see Taylor 2020, Cohen 2020.
21 See, for example, Meineck *et al.* 2019b, 2f. On distributed cognition see Anderson *et al.* 2018, and the *History of Distributed Cognition Project* of Edinburgh University.
22 See Kuhn 1962.
23 Sandrone *et al.* 2014, 627.
24 Attanasio/Oliverio 2012, 93. For this perspective see, notably, Bateson 1972, Edelmann 1992.

widened by neuroimaging, and the criss-crossing of maps, modern and ancient, of the territory of communication can produce a significant development.[25]

3 Successful Communication and Knowledge-Sharing in Homeric Poems: Working Assumptions

I will turn now to a Homeric case-study of successful oral communication, where neuroscientific approaches will integrate the understanding of the cognitive processes at stake. To speak of communication is no simple task, and I will state a few assumptions.

1. Today we are aware of the fact that communicating is a multimodal process that goes far beyond the "thinner more parochial view of communicating, as if it is limited to words or, at best, to recent expansions in visual images and the ramifications of currently expanding information technologies", as Ruth Finnegan reminds us. Communication includes a full multisensory range of "modes by which people interconnect in the world – the multiple bodily resources we can draw on and the multifarious arts and artefacts which we humans create".[26]

2. In what follows I will use interchangeably the terms addresser/singer and addressee/audience.[27] By these terms I refer to the basic triadic scheme of sender-message-receiver for simplicity's sake, but will also try to make this simplicity more complex to take into account the fundamental reciprocity and interrelation of any act of communication. This scheme projects an arguably linear model of communication: a message is borne in the mind of the addresser, travels through the environment and is received by the addressee, whereas the action of communicating is something that happens in-between, and is by and large a common enterprise, a sharing of knowledge rather than an "imparting" of knowledge in a teaching-learning one-way, top-down process, as I hope to demonstrate.

25 On the metaphor of the map and territory from the point of view of epistemology see Bateson 1972, 407–408, 455 ff.

26 Finnegan 2013, xv, 3–32.

27 These expressions follow the terms used by Jakobson in the model of communication proposed in 1960, and which has been the most common in linguistic and semiotic literature as well as in Greek literature.

3. The following analysis equates epic communication with ordinary communication, an assumption argued by Jesper Svenbro, who explains it as "l'unité de l'émission et de la réception, leur *hic et nunc*"; in this "l'interlocuteur normal et l'aède se distinguent du récitant d'un texte déjà fixé. Pour ce dernier, la problématique se réduit aux questions esthétiques concernant l'exécution du texte; pour les deux premiers, il s'agit d'un choix multiple qui concerne l'aspect 'esthétique' aussi bien que tout ce que la situation pourrait exiger dans sa complexité sociale".[28]

4. In the world depicted by Homeric poems, namely an oral society, knowledge is both socialized and dynamically transmitted through epic songs. In this sense we may speak of epic performance as the venue for sharing knowledge, in modern terms learning and teaching. Gilbert Murray was the first to interpret Homeric epics as a vehicle of cultural transmission, that is "some form of Traditional Book, which, like the *Song of Roland*, or the *Niebelungenlied*, or even the Pentateuch, has reached its present form by a process of gradual growth and constant rehandling".[29]

In 1963 Eric Havelock introduced the fortunate expression "Homeric (or tribal) encyclopaedia", to suggest that Homeric poems functioned as a great container to store a society's various know-hows, basic tenets and basic knowledge, becoming thus transmitters and a "compilation" of inherited lore.[30] He argued in particular that "the warp and woof of Homer is didactic", and referred to the matter or the poems as "educational material".[31]

Havelock speaks of an encyclopaedia *sui generis*, much as Murray's "traditional book", to be sure, but it is important to highlight two shortcomings inherent in the widespread metaphor of "tribal encyclopaedia". As a quintessential product of a literate culture, encyclopaedia is what epic was not, that is, the medium of a culture that stores knowledge on a material, disembodied support with a virtually unlimited availability, extension, virtually everlasting, and, most importantly, unchanging. These characteristics have made literate cultures more prone to of ideas and beliefs of fixation, attributing greater value to verbatim and fixed content knowledge. This has furthermore led to an objectification of knowledge, typical of book cultures, whereas oral communication is subject-oriented. The unlimited, reified, and ever-increasing accumulation of knowledge granted by a written medium like an encyclopaedia, however, is not only impos-

28 Svenbro 1976, 17.

29 Murray 1934, 136. The book is based on Murray's Harvard Lectures delivered in 1907.

30 Cf. Plat, *Resp.* 10 599c8, 606e3.

31 "Tribal encyclopaedia" is used to paraphrase Plato's conception of Homeric poetry as covering all branches of knowledge both social and technical. Havelock 1963, 61–86 (quote at p. 61).

sible in an oral or aural cultural environment but also foreign to the cognitive procedures involved in any transmission of information. Lore was subject to continuous adaptation and updating: in an oral/aural society knowledge is always embodied, stored in a living support – people's memory – and therefore is subject not only to limitation, but also, perhaps more importantly, to the selection and fluidity of information, as oral cultures are by nature flexible and open to constant updating and adaptation of information.[32] Homeric poems acted certainly both as a social collector of traditional community lore and as a means of transmission of that lore;[33] at the same time, as Ercolani has well summarized, traditional knowledge was taught by means of public poetic performances. Singers could enlarge or update the traditional contents, if need be. This process rested on a continuous interactive exchange where, as we will see, sharing knowledge was a subjective phenomenon that depends on a constant attunement, or "coupling", between the protagonists in the exchange.[34]

4 Signs of Successful Communication: Comparing Homeric and Neuroscientific Maps

Homer describes key, paradigmatic scenes in the two main settings of Ithaka and Scheria, where three different singers perform their songs successfully for a privileged audience. In Ithaka (book I) Phemius sings the *nostoi*, the return of the heroes from the Trojan war to the usurping princes occupying the hall of Odysseus, the last of the Trojan veterans still engaged in his *nostos*. In Scheria (books VIII to XII), Demodocus and Odysseus sing to the Pheacian audience gathered in a quasi-perpetual banquet. Interestingly, in both settings the poet constructs a

32 Actually, Homeric poems were in a state of flux until at least the late archaic age but they continued to be heavily readjusted, changed, and manipulated well throughout the Hellenistic age. Among well-known examples are: extant "alternative" *prooimia* in the *Iliad*, the references to alternative endings of the *Odyssey*, Pisistratean recension and Hellenistic Homeric papyri.
33 Such lore can be usefully summarized in the terms *nomos* and *techne*, that is, "what is fitting", public laws, habits, manners, behaviours, ritual prescriptions and procedures on the one hand, the *nomos*, and on the other the various techniques, ranging from warfare techniques to navigation, rituals, meals etc. The line between *nomos* and *techne* can and does overlap as "so much of social behaviour and deportment had to be ceremonial, or had to be recorded ceremonially, which may amount to very much the same thing", Havelock 1963, 80.
34 Ercolani 2006, 72. See Svenbro 1976, 16–45. Murray's definition of "traditional book" may seem more adequate, although embedded in the anachronistic concept of book, it uses the idea of tradition which may suggest a more fluid content.

particularly skilful *mise en abyme:* the narration of the *nostoi* is recursively embedded in the narration of the last *nostos*, while in Scheria Demodocus sings of the Trojan war and the *Iliou persis* to one of his protagonists. Odysseus, the protagonist of the story, will take turns with Demodocus to sing the tales of his adventurous voyage from Troy to Scheria which occupies books IX-XII.[35]

The setting is the festive banquet, which stars the singer as addresser *par excellence* and the elite community, leisurely gathered at the noble banquet as audience.

These scenes describe epic performance as an ideal communicative situation, in which the exchange of knowledge takes place most successfully, giving rise to a wealth of paradigmatic lines and phrases. Let us single out the recurring factors of a successful communication.

1 Attentive Silence

The first scene is set in Ithaka, straight after the dialogue between Telemachus and Athena disguised as Mente. Upon the departure of the latter, Odysseus' son turns back to the hall where he finds the suitors listening to Phemius, the Ithacan singer:

> τοῖσι δ' ἀοιδὸς ἄειδε περικλυτός, οἱ δὲ σιωπῇ
> ἥατ' ἀκούοντες: ὁ δ' Ἀχαιῶν νόστον ἄειδε
> λυγρόν, ὃν ἐκ Τροίης ἐπετείλατο Παλλὰς Ἀθήνη
>
> For them the famous minstrel was singing, and they sat in silence listening; and he sang of the return of the Achaeans – the woeful return from Troy which Pallas Athena laid upon them (*Od*. 1, 325 – 327).

These lines photograph the auspicious interactive setting of aedic performance through the formula τοῖσι δ' ἀοιδὸς ἄειδε περικλυτός, οἱ δὲ σιωπῇ / ἥατ' ἀκούοντες *Od*. 1, 325 – 326, which not only epitomizes the three main elements involved in epic communication, namely singer, audience and message (the song) but also gives the first indication for assessing the success of communication: silence, *siope*.

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35 Cf. *Od*. 1, 11 – 15. Straight after the *prooimion* the singer explicitly informs that he will sing the last of the nostoi, since "all the others were home" (11 – 12) and "he alone" was far on his way, "yearning his homecoming and his wife" (13). On the "anomalous position" of Odysseus as reciter of his own *kleos* see Segal 1983, 26 ff.

While this non-verbal linguistic signal recurs in every setting as an obvious precondition for being heard distinctively, upon closer look silence lends itself to multiple meanings: an attitude of listening, a marker of involvement, a manifestation of agreement on the part of the audience as well as their pleasurable absorption. This can be asserted not only in agreement with the other occurrences where silence is mentioned (see below), but can also be deduced *e contrario* in the same passage. Whereas the singing of the *nostoi* is received with appreciative silence by the suitors, hoping for a foreboding of a similarly woeful return for Odysseus, in Penelope it elicits a dissonant reaction signalled by weeping (*Od*. 1, 336 ff.). As I will show in more detail elsewhere, weeping signals unsuccessful communication and the rupture of the implicit alliance between speaker and listener, that is, the embedded pleasure experienced in the communication.

As the context makes clear, the *siope* points to a positive, *attentive silence*, wherewith the addressee is absorbed, a "listening strategy" which testifies to the deep concentration, synchronization and enjoyment at hearing the message. This reflexive silence manifests moreover a deep appreciation of the performance and hence its success, as will be clear from its close association to captivation and pleasure. Finally, silence bonds the addressees, united by this common outward expression signifying an intense "sense of sharing".[36]

From the point of view of neuroscience, silence can be thought of as a condition for listening attentively to what the addresser is communicating. Neuroscientific research on attention has highlighted the pivotal role played by *expectancy*, a state of mind consisting in being geared toward the oncoming of a certain event (the stimulus). When we are expecting something to happen, like a vision (a visual stimulus) or a sound (an auditory stimulus), our mind engages in a top-down process whereby high-level brain areas "alert" and hence modulate the activity of sensory-specific areas to perceive the stimulus in question.[37] This sheds light significantly on the so-called "horizon of expectancy", or the role of "anticipation" in the audience. In particular, the expectancy of a given event has been shown to influence the activity of the visual areas, and the effects of selective attention have also been observed the for auditory modality.[38] This illuminates Homeric *siopé* as an active silence, which manifests expectancy but activates attention and captivation. Not surprisingly, silence plays a privileged role in the auditory modality: a recent study based on neuroimaging has investigated how silence impacts auditory activity, and the results show an increase of activ-

36 On which see Harumi 2011, 261.

37 Rees/Lavie 2001; Corbetta/Shulman 2002.

38 Petkov 2004 *et al.*

ity in the auditory areas when "attentively listening in silence to detect a sound when the auditory scene remains silent".[39]

We can connect silence therefore to the disposition of the audience to listening and learning what is going to be sung, a disposition which can be reinforced or even triggered by the context. The ideal audience, extolled by Odysseus' words, and hinted at in *Od*. 1, 339 – 340, attentively expects to hear a precise stimulus, the singer's song, and is prepared for the song to bring them pleasure and to be enchantingly gripping. They paradigmatically manifest their disposition by remaining silent. The convivial context, the proxemics (being seated) help them prime themselves for an experience that will be captivating, thrilling – due to its novelty – and will elicit the addressee's attentional mechanisms. In the context of a performance as well as in common experience, therefore an intent silence may indicate fascination as well, the next factor.

2 Enchantment

Two formulary lines encapsulate the second scenario of effective and captivating communication:

> ὣς ἔφαθ', οἱ δ' ἄρα πάντες ἀκὴν ἐγένοντο σιωπῇ,
> κηληθμῷ δ' ἔσχοντο κατὰ μέγαρα σκιόεντα
>
> So he spoke, and they were all hushed in silence,
> and were spellbound throughout the shadowy halls (*Od*. 11, 333 – 334 = 13, 2 – 3).

Kelethmos, "enchantment" emerges in these lines as the second indicator of successful communication, associated with silence as if they were one and the same. Both occurrences refer to Odysseus' singing of his marvellous adventures. The first marks the end of the first of the hero's autobiographic tales at the coming of night, followed by the hearty encore of Alcinoos and his court, compelling Odysseus to resume the tale; the second occurrence coincides with the closure of the tales. The association of silence and enchantment is explicit in these lines, where the narrator describes the bewitching effect of Odysseus' song on his audience. We may somehow strain the translation as "they fell in silence, since they were kept by enchantment", whereby silence is the outward sign of the internal cognitive disposition of concentration and pleasure.

39 Voisin *et al*. 2006, 273, 277.

In *Odyssey* I, Phemius' singing, as we have seen, elicits a painful weeping in Penelope, who asks the singer to change the subject and addresses him with a general comment about the standard competence of singers:

> Φήμιε, πολλὰ γὰρ ἄλλα βροτῶν θελκτήρια οἶδας,
> ἔργ' ἀνδρῶν τε θεῶν τε, τά τε κλείουσιν ἀοιδοί·
> τῶν ἕν γέ σφιν ἄειδε παρήμενος, οἱ δὲ σιωπῇ
> οἶνον πινόντων [...]
>
> Phemius, many other things thou knowest to charm mortals, deeds of men and gods which minstrels make famous. Sing them one of these, as thou sittest here, [340] and let them drink their wine in silence [...] (*Od*. 1, 337–340).

In this passage, the distinctive quality of a singer (*oidas* 337) is to mesmerise mortals, *thelkteria broton:* that is, to produce a message with a spell-binding effect, deeply involving and emotional. The term *kelethmos* falls in the same semantic sphere of *thelkterion*, "enchantment", "fascination", implying a deep enmeshment in the process of storytelling. As Carastro asserts: "Les aèdes, par leur inspiration divine et leur instrument aux sonorités aiguës, ont un pouvoir d'emprise sur l'âme des auditeurs qui se manifeste par différent aspects de la réjouissance, *terpsis*, à un véritable effet médusant, *kelethmos*, comme dans le cas du récit fait par Ulysse, au palais des Phéaciens".[40]

The same effect is evoked by an admired Eumelus who praises Odysseus' competence as storyteller to queen Penelope:

> εἰ γάρ τοι, βασίλεια, σιωπήσειαν Ἀχαιοί.
> οἷ' ὅ γε μυθεῖται, θέλγοιτό κέ τοι φίλον ἦτορ. [...]
> [...] ὡς δ' ὅτ' ἀοιδὸν ἀνὴρ ποτιδέρκεται, ὅς τε θεῶν ἓξ
> ἀείδει δεδαὼς ἔπε' ἱμερόεντα βροτοῖσι,
> τοῦ δ' ἄμοτον μεμάασιν ἀκουέμεν, ὁππότ' ἀείδῃ·
> ὣς ἐμὲ κεῖνος ἔθελγε παρήμενος ἐν μεγάροισι
>
> I would, O queen, that the Achaeans would keep silence, for he speaks such words as would charm thy very soul. [...] he had not yet ended the tale of his sufferings. Even as when a man gazes upon a minstrel who sings to mortals songs of longing that the gods have taught him, and their desire to hear him has no end, whensoever he sings, even so he charmed me as he sat in my hall (*Od*. 17, 513–514; 518–521).

Eumelus describes a virtual scene in which Odysseus' storytelling would enthral the suitors, hushed in silence, just as the swineherd was enchanted by Odysseus' wonderful tales. The hero is not a singer *stricto sensu*. However similar to one he

40 Carastro 2006, 139.

may be, he differs from an *aoidos* on several points, first of all the delivery, since he does not sing but tells, and while the gods are the source of an *aoidos*' song, Odysseus is at one and the same time the tales' inspiration and their protagonist. In what way does he resemble a singer then? In the effect of enchantment that he produces in his audience (*ethelxe* 521). This indirectly confirms that the factors at play in structured epic-singing reverberate in storytelling and, arguably, in any act of successful communication.[41] Interestingly, Radloff described in very similar terms successful communication on the part of the *akyn* (the Kirghiz epic performer):

> one can observe everywhere that the audience takes delight in a well-formed speech, and that they know how to determine whether a speech is perfected in form. *Deep silence* surrounds the orator/performer if he knows *how to mesmerize his listeners*; they sit, bent forward with their eyes glowing, and listen to the speaker's words.

This mutual agreement among the protagonists of communication is implicit in the very idea of enchantment: the singer's capacity to tune in to the audience and the latter's willingness to be transported and enchanted; this agreement has been termed "empathy",[42] and "transportation",[43] but in the light of neuroscientific findings, as we will see, we would better speak of consonance or sympathetic engagement.[44]

3 What about Pleasure?

The third encompassing sign of engaging communication in epic performance is pleasure, and a deeply sensual one. So much comes to the fore in the words of

41 On the difference between Odysseus and the singer see Carastro 2006, 137; Capra 2007, 286–290. Outside the performance's context, we may mention in passing the song of the Sirens. This is the ultimate scenario of a captivating song, where the constitutive elements of the previous communicative settings are heightened to the bitter end. As Segal 1983, 46ff., suggests, the dead calm surrounding the isle of Anthemoessa may evoke the silence surrounding the aedic performance, the enchantment provoked by the Sirens' song taken to its most extreme form: eliciting a paralysing and ultimately deadly effect. Sirens and singers are akin to each other, as Carastro expresses: "avec les Sirènes, figure extrême de l'aède homérique, ces caractéristiques abandonent la sphère divine pour s'acheminer vers le mond des hommes" (Carastro 2006, 139).
42 Russo/Simon 1968, Rossi 1979, 122–124.
43 See below, 188.
44 On empathy as a key factor of theatrical communication in the light of neuroscientific findings, see the excellent treatment in Meineck 2017, 204ff. and *passim*.

Telemachus, who tries to divert the suitors' erotic arousal at the sight of Penelope climbing the stairs back to her bedroom (ἠρήσαντο παραὶ λεχέεσσι κλιθῆναι, "they craved to lay down in bed with her):

> μητρὸς ἐμῆς μνηστῆρες ὑπέρβιον ὕβριν ἔχοντες,
> νῦν μὲν δαινύμενοι τερπώμεθα, μηδὲ βοητὺς
> ἔστω, ἐπεὶ τόδε καλὸν ἀκουέμεν ἐστὶν ἀοιδοῦ
>
> Wooers of my mother, overweening in your insolence,
> for the present let us take pleasure from the feasting,
> but let there be no brawling; for this is a goodly thing, to listen to a minstrel (*Od*. 1, 368–370).

In this passage, Telemachus succeeds in checking the suitors' sexual appetite by luring them into a different pleasurable reward, the enjoyment of the feast and listening to the song. Later in the same scene, the poet underlines twice that song and dance did actually pleasure everyone (τέρποντο, 422; τερπομένοισι, 423). The vocabulary here brings up the same semantic connection: the act of singing, *aoide*, is explicitly called *himeroessa* (*Od*. 18, 304), an adjective meaning "charming, sweet" as well as "exciting desire"; the tales are equally "seductive", *himeroenta* (ἔπε' ἱμερόεντα, *Od*. 17, 519). The connection to *himeros*, "erotic desire", is revealing of a consistent association of the effect of listening to epic songs with the reward of erotic pleasure-inducing experiences.[45]

In another passage from the Phaeacian banquet, the association of pleasure to listening to songs is explicitly asserted as a precondition of any act of epic communication by Alcinoos, who silences Demodocus' singing on this very ground:

> κέκλυτε, Φαιήκων ἡγήτορες ἠδὲ μέδοντες,
> Δημόδοκος δ' ἤδη σχεθέτω φόρμιγγα λίγειαν·
> οὐ γάρ πως πάντεσσι χαριζόμενος τάδ' ἀείδει
>
> Hear me, leaders and counsellors of the Phaeacians, and let Demodocus now check his clear-toned lyre, for in no wise to all alike does he give pleasure with this song (*Od*. 8, 536–543).

If song is not gratifying for all the addressees then it fails its goal, its *raison d'être*. In the *Odyssey*'s metapoetic passages therefore, both silence and enchantment find their place in the ideal communicative setting insofar as they are deeply connected to *terpsis:* "the goal of the singing is *terpein*, "delighting". *Terpein* –

45 Cf. *Od*. 5, 17; 8; 367–368 τέρπετ' ἐνὶ φρεσὶν ᾗσιν ἀκούων ἠδὲ καὶ ἄλλοι; 429; 17, 606.

or *terpesthai* "to let oneself be delighted" from the perspective of the listener – is a out-and-out technical term indicating the pleasure produced by the song".[46]

Arousing pleasure is the ultimate goal of singing, whose success is measured by the enjoyment it effects on the audience. Tellingly, Phemius, the singer of Ithaka, is called Terpiades (*Od*. 22, 330), which we may render as "the son of Pleasure" a patronymic which hints both at a family profession, as Sbardella points out in this volume, and the quintessential competence of any singer, that of arousing pleasure.

The association of pleasure with performance and hence with learning (a new song in epic context) continued beyond the period of Homeric poems. Up to the 5th century at least, sensual pleasure was considered inseparable from any process of acculturation and part and parcel of persuasion and poetic reception. Listening to poetry and attending a performance are phenomena as connected to learning as they are to engaged involvement. From Homer to tragedy, one learns by being emotionally moved and involved. The entire two-way communicative process of information transmission, as well as persuading and being persuaded, are deeply interwoven with enjoyment; as Goldhill asserts, in archaic Greece, the educational form of *paideusis* involved first and foremost emotions and pleasure.[47] The pleasure of weeping and the pleasure of laughing, the pleasure of listening to words and the pleasure of seeing a world evoked by storytelling and performing.[48] As we will see, the final and encompassing characteristic of the good Homeric way of sharing knowledge perfectly matches the way neuroscience speaks about learning.

46 Ercolani 2006, 136: "il fine del canto è *terpein*, "dilettare". *Terpein* – o, dalla prospettiva dell'ascoltatore, *terpesthai*, "lasciarsi dilettare" è un vero e proprio verbo tecnico che indica il piacere che il canto produce". The word *terpsis*, *terpomai*, in Homer is connected to a physically related response involving emotions both painful and joyful. In a well-known scene, after Priam's supplication, Achilles is caught by a desire (*himeros*) to weep and having wept Homer says "when noble Achilles had had his fill of weeping, and the desire of it had gone away from his heart and limbs [...]" *Il*. 24, 513 – 514. Achilles is said to have enjoyed the weeping, *tetarpeto gooio*, and we should also stress that weeping, although related to the memory of Patroclus and of Peleus, is triggered by Priam's words, which in the end were successful in persuading him.

47 Goldhill 2000, 40 – 41; Griffin 1998 stresses the element of pleasure and emotion in tragedy, although disconnected from learning and intellectual engagement.

48 On the subject of emotion see most recently Alexiou/Cairns 2017. On the connection between pleasure and education in Plato and Aristotle see Croally 1994.

5 Signs of Successful Communication: Modern Maps from Havelock to Neuroscience

How can we deepen the understanding of the reciprocity and interconnection embedded in communication as described by Homer by leveraging neuroscience? Can we gain insight into what happens in the mind of an enchanted audience? Is there a neural connection taking place between singer and audience?

Among the many existing trends in brain research Uri Hasson and his laboratory have inaugurated an approach to communication which shows a stringent affinity with our perspective. Starting from the assumption that verbal communication is a "joint activity by which interlocutors share information" they set out to study "the ongoing dynamic interaction" in "natural communication".[49] To do so, the scholars argue against previous experimental paradigms of neuroscientific research whereby "typical experiments isolate humans or animals from their natural environments by placing them in a sealed room where interactions occur solely with a computerized program". By cutting out what communication is about, namely interaction among different people, observation and interpretation of the cognitive processes at stake is severely limited if not impossible.[50] Given the premise that "the development of communication is fundamentally embedded in social interactions across individual brains", Hasson and colleagues advocate no less than a "Copernican revolution" and have operated "a shift from a single-brain to a multi-brain frame of reference", conducting a series of experiments involving several subjects at the same time, recreating, although in the "unnatural" conditions of a laboratory, a sample of real life communication.[51] Since 2010, ground-breaking studies have argued that successful communication relies on "speaker-listener neural coupling" and have put forward a model for understanding verbal communication, termed "brain-to-brain coupling", which represents a new important chapter in neuroscience particularly conversant with humanities.[52]

At the basis of the neural coupling process is an interactive understanding of the neurophysiology of verbal communication, whereby an exchange is observed as a reciprocal, constant tuning in, in particular: "the premise of brain-to-brain coupling is that the perceptual system of one brain can be coupled to the motor

49 Stephens *et al.* 2010, 14425, 14428.
50 Hasson *et al.* 2012, 114.
51 Hasson *et al.* 2012, 117.
52 Stephens *et al.* 2010; Hasson *et al.* 2012; Yeshurun *et al.* 2017; Zadbood *et al.* 2017; Nguyen *et al.* 2019; Nguyen *et al.* 2020.

system of another. This binding mechanism builds on a more rudimentary ability of brains to be coupled to the physical world".[53]

The addresser produces a series of oscillations through the voice by uttering three to eight syllables at a second, that is, at a rhythm of 3–8 Hz.; the sonic, oscillatory message ("input" or "stimulus" in neuroscientific terms) conveyed through the air reaches the ear, and hence the auditory cortex, of the addressee. Rather than a linear scheme, we can infer a reciprocal consonance taking place between the communication's protagonists.

The addressee has an already established system of reception located in the auditory cortex, endowed with ongoing auditory cortical oscillations – like a radio – even in silence. Addresser and addressee, in other words, are already "in sync", tuned in to each other to receive the signal, so that "the 3–8 Hz rhythm of speech couples with the on-going auditory cortical oscillations that have a similar frequency band [...]. The signal-to-noise of this cortical oscillation increases when it is coupled to the auditory-only speech of the signaler". This attunement is greatly enhanced by the visual signal of the mouth's movements during speech, paired by the same rhythmic frequency, so that "audiovisual speech can further enhance the signal-to-noise ratio of the cortical oscillation".[54]

The findings show that "during successful communication, speakers' and listeners' brains exhibit joint, temporally coupled, response patterns", and that "the stronger the neural coupling between interlocutors, the better the understanding".[55] Such neural coupling is in step with the success of communication: the more the neural pattern aligns, the deeper is the reciprocal understanding. Production and comprehension are not mechanically related but reciprocally aligned and interconnected, and they are so at "many different levels during verbal communication, including the phonetic, phonological, lexical, syntactic, and semantic representations".[56] "We argue that in many cases the neural processes in one brain are coupled to the neural processes in another brain via the transmission of a signal through the environment."[57] This continu-

53 Hasson *et al.* 2012, 115.

54 Hasson *et al.* 2012, 117.

55 Hasson *et al.* 2012, 118.

56 Stephen *et al.* 2010, 14428–14429; the neural coupling was observed both at the level of so-called low-level auditory areas and production-based area (such as Broca's area) as well as high-order extralinguistic areas, some of which are "known to be involved in processing social information crucial for successful communication, including among others, the capacity to discern the beliefs, desires, and goals of others" (Stephen *et al.* 2010, 14429).

57 Hasson *et al.* 2012, 114–115.

ous tuning is a "neural coupling", so that the listeners actively anticipate and predict the what the speaker is going to say.

Building on this model, furthermore, the Princeton team conducted a number of studies on storytelling situations, using both autobiographic narration as well as stories viewed on film, with a narrator telling a potentially gripping story to a diversified audience. These studies – to be brief – mapped the neural patterns of the addresser during the encoding of the story, its retrieval (= memory), the verbal delivery on the one hand, and on the other the neural processes of the listeners in decoding and mentally reconstructing the story.[58] The bearing of these results on ancient Greece are in my mind quite important and deserve serious future consideration.

Before returning to the Homeric relevance of brain-to-brain coupling, it is intriguing to read Havelock's argument through this perspective:

> The audience found enjoyment and relaxation as they were themselves partly hypnotized by their response to a series of rhythmic patterns, verbal, vocal, instrumental, and physical, all set in motion together and all consonant in their effect [...]. If he listened silently, only the ears were fully engaged; but the ears transmitted to the nervous system as a whole, and thus limbs, lips, and throat might perform slightly, and the nervous system in general would be sympathetically engaged with what he was hearing. When he in turn repeated what had been sung, the vocal chords and perhaps the limbs were fully activated to go through and perform in identical sequence what they had already sympathetically performed for themselves, as it were, when he had listened.[59]

In his description, Havelock seems to work as a neuroscientist *ante litteram*, in reconstructing the inner, cognitive reactions the performance set in motion in the addressee who resonates cognitively and somatically with the addresser. The scholar highlighted the rhythmic factor that the study of brain-to-brain coupling infers from neuroimaging, and intuitively argues not only for the fundamental reciprocal accord between speaker and listener, but he also sketches an imitative pattern that bears a fundamental analogy with the mirror neuron system (particularly with the mirroring of movements), taking into account furthermore the multimodality specific to epic song, including body movement and music.

Glossing Homeric texts, Havelock speaks of the audience being hypnotized as a result of the above-mentioned factors. In the terminology of brain research, we might describe the same as a brain-to-brain coupling, which is "analogous to a wireless communication system in which two brains are coupled via the trans-

58 Yeshurun *et al*. 2017; Zadbood *et al*. 2017. I can only hint at the main results here.
59 Havelock 1963, 152.

mission of a physical signal (light, sound, pressure or chemical compound) through the shared physical environment".[60]

Hasson and colleagues have shown that this coupling relied on all the actors of communication alike, that in order for the speaker to play a major role in "directly induc[ing] similar brain patterns", reciprocal engagement is needed; in particular, "successful communication requires the active engagement of the listener".[61] Success is by no means automatic or mechanical, it is rather the result of a series of appropriate conditions and shared codes between the agents of communication. The alchemic process of successful communication can easily go astray for a number of reasons, including the narrator's skill, audience members' previous personal experiences as well as a variety of beliefs or expectations, as Penelope's weeping in *Od*. I and Odysseus' in *Od*. VIII show, when the stories strike too close to home.[62]

In Homer we learn that only successful storytellers, with a perfect mastery of the verbal and non-verbal art of storytelling, succeed in locking their listeners' minds in an interdependent, interactive relationship, based on factors such as the willingness to be 'hypnotized', the communal sharing of the experience, as well as common cultural assumptions. When communication "clicks", however, addresser and addressee are like one, they mirror each other. To speak with neuroscientific language "the production/comprehension coupling observed here resembles the action/perception coupling observed within mirror neurons [...]. Similarly, during the course of communication the production-based and comprehension-based processes seem to be tightly coupled to each other."[63]

This coupling is perfectly explained by Plato as a magnetic process in his account of the working of a rhapsodic performance in the 5th-4th century BC, where the philosopher takes pains to explain that the same cognitive and emotional process is mirrored in the relationship between performer and audience.[64] The rhapsode is himself, by virtue of the *enthousiasmos*, transported to the world

60 Hasson *et al*. 2012, 115.

61 Stephens *et al*. 2010, 14428.

62 On differences in perception and interpretation of the same story see, for example, Yeshurun *et al*. 2017. See also the remarks in Budelmann *et al*. 2017, 249: "the traditional approach to tragedy, again for very good reasons, also tends to talk about spectators collectively: the 'audience'. Our methodology revealed, perhaps unsurprisingly, variations in audience somatic and affective response: the 'audience' is Hydra-headed".

63 Stephen *et al*. 2010, 14429.

64 Of course, Platonic description rests on the theory of *enthousiasmos*, we are interested here in the mere description of the mental and emotional process, regardless of their metaphysical interpretations.

of his narration that we would call fictional. His soul, asserts Socrates, is "among the scenes you are describing, whether they be in Ithaca or in Troy or as the poems may chance to place them?", Ion confirms: "when I relate a tale of woe, my eyes are filled with tears; and when it is of fear or awe, my hair stands on end with terror, and my heart leaps." (535c).

Whatever emotion, or neural pattern, we may now add, arises in the narrator, is effected in the listeners too:

> Ion – Yes, very fully aware: for I look down upon them from the platform and see them at such moments crying and turning awestruck eyes upon me and yielding to the amazement of my tale. For I have to pay the closest attention to them; since, if I set them crying, I shall laugh myself because of the money I take, but if they laugh, I myself shall cry because of the money I lose. (Plat., *Ion* 535e-d).

This process of reciprocity as well as the feeling of "being among the scenes" to use Plato's own words is coincidental with the phenomenon of "transportation", the experience "of entering fictional worlds", a term that, as argued by Budelmann *et al*., "gets at 'something', however poorly defined, fundamental to spectatorship and closely related to many other aspects of that experience".[65] Homeric scenes as well as Plato's description of transportation are in my opinion greatly clarified by and cognitively points to the brain-to-brain coupling model. For transportation to take place audience and singer must reciprocally tune in, a condition which brain-to-brain neural coupling maps as a deep and powerful interconnection. This model can be greatly enhanced, I believe, once we look at the overarching factor of engaging communication: *terpsis*.

Neuroscience research can also greatly contribute to our understanding of the relationship between pleasure and learning for our mind, and to move the debate to a different, perhaps firmer ground, that is, beyond simple intuition and common sense, unveiling the possible neural underpinnings that connect knowledge and pleasure. Kang showed that dopamine circuitry is elicited not only by tangible, "primitive" payoffs, but also by cognitive rewards, that is, by the acquisition of knowledge.[66] Together with serotonin and acetylcholine, dopamine is one of the most important neurotransmitters. Its activation is commonly known to be connected to reward and appetitive behaviours, motivational circuitry and goal-directed actions and behaviours: "[D]opamine has a crucial role in motivational control – in learning what things in the world are good and bad, and in choosing actions to gain the good things and avoid the bad

65 Budelmann *et al*. 2017, 245, and nn. 34–35 for bibliography on the subject.
66 Kang 2009.

things".[67] Its high release therefore comes to the fore when we predict that a certain stimulus will bring reward and we assign it a particularly high value accordingly.[68] For our concern, the role of dopamine has been assessed particularly in motivation and learning, and in reinforcing the acquisition of certain information (that is, the formation of synapses) which are assessed as particularly high-value, that is pleasurable, and that we will seek in the future according to the saying "neurons that fire together wire together, as long as they get a burst of dopamine."[69]

In the same year, an unparalleled study equally based on functional magnetic resonance imaging measured the connection between participants' curiosity to learn the answers to trivia questions and the activation of the dopamine system. The results detected a relationship between enhanced activation of the latter and a strong curiosity. In particular, this was shown by heightened activation in the caudate nucleus, a brain structure involved in the reward system and bristling with dopamine neurons.[70]

This shows that the appetite for a forthcoming piece of information (in the study represented by trivia questions, in Homer a new tale) is in itself an anticipated reward. These results have progressively led to a revision of theories of reward-seeking to include information-seeking. The neural activity fired by epistemic curiosity influences memory formation of the stimulus – the piece of information involved.[71]

We can try to connect these separate findings, and conclude that intrinsic motivation – epistemic curiosity – is tightly connected to goal-oriented attention, and that both are geared towards an expected piece of information (the stimulus). The expectation of hearing something new and captivating is itself a reward, which will be followed by the reward of the actual song; both pleasures are therefore sustained by the circuit of dopamine. Getting to know something, in other words, has an intrinsic value for our mind, the neural scanning that detects the release of dopamine confirms what ancient Greeks took for granted since Homer.

67 Bromberg-Martin *et al.* 2010, 815.

68 The dopamine circuit, however, is far more complex and differentiated; recent studies have highlighted its role also for avertive behaviour, see Bromberg-Martin *et al.* 2010, and Wenzel *et. al.* 2015.

69 Bromberg-Martin *et al.* 2010, 816.

70 Bromberg-Martin/Hikosaka 2009.

71 Gruber *et al.* 2014 for the connection between hippocampal activity associated to the anticipation of a reward and memory formation for an upcoming event.

In our neurophysiology, knowledge and learning are pleasure-dependent, much like food and drinking, as Aristotle so well abstracted at the onset of his *Metaphysics* 1.980a πάντες ἄνθρωποι τοῦ εἰδέναι ὀρέγονται φύσει, "all humans by nature yearn for knowledge". To learn, to know, be it a trivia question, an epic song or a scientific theory, is a pleasure deeply embedded in our *physis*, in the structure of our mind.

The underlying reciprocity among all the agents involved in communication – not only between the singer and his audience but among the members of the latter as well – is pointedly expressed by Odysseus' reply to Alcinoos' invitation to reveal his story and take on the role of singer himself:

> 'Ἀλκίνοε κρεῖον, πάντων ἀριδείκετε λαῶν,
> ἦ τοι μὲν τόδε καλὸν ἀκουέμεν ἐστὶν ἀοιδοῦ
> τοιοῦδ' οἷος ὅδ' ἐστί, θεοῖς ἐναλίγκιος αὐδήν.
> οὐ γὰρ ἐγώ γέ τί φημι τέλος χαριέστερον εἶναι
> ἢ ὅτ' ἐυφροσύνη μὲν ἔχῃ κάτα δῆμον ἅπαντα,
> δαιτυμόνες δ' ἀνὰ δώματ' ἀκουάζωνται ἀοιδοῦ
> ἥμενοι ἐξείης, παρὰ δὲ πλήθωσι τράπεζαι
> σίτου καὶ κρειῶν, μέθυ δ' ἐκ κρητῆρος ἀφύσσων
> οἰνοχόος φορέῃσι καὶ ἐγχείῃ δεπάεσσι·
> τοῦτό τί μοι κάλλιστον ἐνὶ φρεσὶν εἴδεται εἶναι.
>
> King Alkinoos, it is a good thing to hear a bard with such a divine voice as this man has. There is nothing better or more delightful than when merriment prevails over a whole *dêmos*, with the guests sitting orderly to listen, while the table is loaded with bread and meats, and the cup-bearer draws wine and fills his cup for every man. This is indeed as fair a sight as a man can see. (*Od*. 9, 2–11).

This passage stands as a veritable manifesto for singing as the climax of human activity and communitarian joy: neither army nor fleet of ships, the *kalliston*, the best in human life is sharing the pleasure of aedic singing performance, the feeling of interconnectedness created by sitting and eating together, the sensory pleasure of food and drink, and the global intellectual pleasure of learning a new tale.[72] Budelmann *et al.* have recently argued on experimental grounds that being exposed to fictional tragic stories (the experiment was conducted with film-viewing) can trigger production of endorphins, with the effect of reducing pain in the audience, a result which interestingly pairs in a complementary way to the role of pleasure in learning new information (be it stories or other-

72 This ideal communitarian situation lives inside another ideal paradigm, that of Scheria, an island of "utopia". On this see recently, Deriu 2020.

wise), and look at the role that (sad) stories may have in pain tolerance.[73] Even more interestingly for the present concern is the role of endorphins in the sense of being part of a group, which illuminates not only "why we enjoy tragedy, but also why we regularly do so together".[74] The endorphin system has a role not only in pleasurable sensations and pain tolerance but is also "central to social bonding and plays a crucial mediating role in creating cohesive, affective relationships"; the scholars reasonably surmise on this account that "the painful endorphin-releasing experience of tragedy" may elicit an increased sense of bonding among the audience."[75]

In this light the fact that a Homeric scene portrays a community enjoying epic performances together, either as "a whole demos" as in Alcinoos' words, or as a small community, acquires the added value of fostering social bonding. In other words, if the sense of sharing and the belonging mindset is in step with endorphin release, as this study suggests, the cognitive reward of learning/hearing something new makes the experience of epic performance a most powerful social institution where the community shares, constructs and reconstructs its knowledge through a multimodal experience.

So much is conveyed by the Homeric description of a community gathered to enjoy food and drink – the tangible rewards of neuroscientific parlance – as well as to share the pleasure of learning a new story, a new journey of the mind, in search of the ultimate cognitive rewards which sublimate all pleasure. The experience of epic performance, in other words, is a community-maker, one that fosters the sense of interconnection, mutual presence and a sense of belonging. Like the good, effective teacher, the good, divine singer is one who triggers and satisfies the sheer desire for knowing, and creates a memorable, enchanting experience.

6 Concluding Remarks

In this contribution I have set out to create a dialogue between a specific field of cognitive sciences, namely neuroscience, and Homeric studies on the particular issue of successful communication.

Let us now ask how neuroscience changes our perspective. As I have made clear, neuroscience does not provide "the truth about the mind", but it does offer

73 Budelmann *et al.* 2017.

74 Budelmann *et al.* 2017, 240.

75 Budelmann *et al.* 2017, 236, and nn. 19 – 20 for references.

us a distinctively different map of the same territory – in our case verbal communication. In this, brain imaging research has an empirical and experimental vantage point from which we can confirm, flesh out or react to scholars' opinions and interpretations on "Homeric psychology" and the impact of contextual circumstances with much gained by introducing an external, instrumental parameter, in this case fMRI-based results. The descriptive – and implicitly prescriptive – Homeric passages which identify silence, enchantment and pleasure as the three interconnected factors of successful and attuned verbal communication make perfect sense when seen from the perspective of neuroimaging studies, and arrestingly so; but neuroscientific contributions have further illuminated the cognitive articulation underlying those factors of communication highlighted in Homeric poems. In this enriched hermeneutic framework, which includes neuroscientific findings, the Homeric idea of singing, sharing and acquiring knowledge as a deeply emotional experience seems to possess a firm ground in neurophysiology.

Moreover, all factors vividly portrayed in Homeric banquet scenes, where relevant knowledge is shared and to a degree constructed show that the two-way process we call teaching and learning is based on a constant accord between the parties, and entails enjoyment. "Learning" – listening to an epic performance – is depicted as an engaging activity, profoundly connected to what we humans consider as most dear and valuable, just like food and social interconnection, that neuroscience terms the "dopamine circuit".

Anthropological and comparative approaches are in many ways a distancing device, as they remove Homer from our armchair classicist projections, to compare them with cultures distant in time or place, be they West African *griots* or Balkan *guslari*. This is a necessary step to see Homer in its own terms rather than ours. According to Habinek, neuroscience does something similar to anthropology, it "defamiliarizes the ancient material, opening up new horizons of understanding"; glossing this assertion Meineck adds that the epistemological advantage is "to distance ourselves slightly from our own cultural biases when we examine aspects of antiquity."[76] I would rather say that neuroscientific approach acts in a different direction as well. It may stand as a zooming device whereby we may relate to ancient Greece, and Homeric texts for the present concern, in a new, more lively fashion. If on the one hand, Homeric world is perceived as distant from our modern experience, on the other, by joining neuroscience to our analysis, the Homeric way makes perfect sense, and becomes wonderfully

76 Habineck 2011, Meineck 2017, 3 – 4.

close from the human point of view. Within the limits of this contribution, two directions stand out.

In the first place, the Homeric model of communication brings to the fore the idea that learning, sharing knowledge and teaching are virtuously connected with enjoyment, an idea that brain research has increasingly confirmed, but that common opinion and school-practice often disconfirm: common sense (which of course does not coincide with the scholarly viewpoint) would associate learning processes with hard work or strain rather than with enjoyment and pleasure. From the viewpoint of mind research, the Homeric and ancient Greek way may be viewed as a sort of inspiring best practice for sharing information and at the same time for creating a mindset of belonging in the learners' community.

Secondly, to perceive Homeric and ancient Greek texts and culture as simultaneously culturally estranged and humanly familiar allows us to engage in a lively new dialogue, a great challenge especially in a time when communication is changing fast. While our discourse is by and large the product of "analogic" alphabetic writing, that is, based on writing and reading using a material, analogic support (stone, paper, etc.), we are living in a time when digital media are surpassing the ancient technology of literacy, producing, among other things, a new visual orality and new ways of sharing knowledge. To rethink orality and literacy with the help of neuroscience also means imagining a transferable set of questions for a new, thought-provoking perspective on digital communication. In this, I believe neuroscience can act as zooming device as well as a distancing one, a way of creating a new dialogue with ancient texts which become "differently closer" as well as a dialogue – or *metalogue* in Bateson's terms – between human and hard sciences.[77]

This, I surmise, is no little gain, as we can take these practices as a challenge to rethink ourselves in a time of swift change and by doing so, we may provide a cross-cutting approach to the theme of communication, which not only will change and update current paradigms, but may prove most suggesting and insightful for contemporary debate.

77 See Bateson 1972, 2: "a *metalogue* is a conversation about some problematic subject. This conversation should be such that not only do the participants discuss the problem but the structure of the conversation as a whole is also relevant to the same subject".

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Mauro Tulli

Plato and the Charm of Epideictics in the *Menexenus*

Abstract: The aim of this paper is to show that Plato in the *Menexenus* indicates the possible function of epideictics in the ideal city. Of course, in the first section critics discover shadows of irony. The result, however, that derives from reversing the content and the form, is not acceptable. Plato recognizes the praise of the glorious death as the best frame to draw the *katholou* of the ideal city and to appease the desire for elegance. Certainly, on the trail of Gorgias, the charm of epideictics overwhelms the soul: the speech that provides knowledge, the speech that depends on research, on the questioning of Socrates, is the reliable *pharmakon* for the παιδεία.

Keywords: *Menexenus*; epideictics; speech; ideal city.

1 Introduction

Summarizing the conception of rhetoric that Plato offers in the *corpus* is difficult: neither distance nor adhesion. The relationship between the truth and the false is fundamental in the first phase, in the *Apology*, in the *Symposium*, in the *Euthydemus*, and in the *Menexenus*. It is the problem for which Hesiod charges Homer in the proem of the *Theogony* (1–115): Plato responds to Gorgias.[1] Frame of persuasion in itself, rhetoric rejects the false to conceal the truth or rejects the truth to conceal the false. It is the form of adulation that comes from the need of ἡδονή and wrongly has the crucial function of politics. Rhetoric, in the *Gorgias* (462b–466a), does not possess the status of the τέχνη, it arises from an empirical experience. The aim of the τέχνη, for example of mathematics, is traced by definition. But which aim distinguishes rhetoric? The speech: Plato recalls the answer of Gorgias here. But what about the content? The speech is not an empty pattern to be filled in the moment. Rhetoric helps the author who wants to convey opinion, because opinion depends, in court or in assembly, on the strength of persuasion. Plato, however, has knowledge as the aim, as the culmination that research indicates, not opinion. The speech, in the *Phaedrus*

1 Scully 2018, 81–94, analyzes the speech of the Muses, in the scene on the slopes of Helicon, to illustrate the relationship between the truth and the false. See Sbardella 2016, 63–82.

 https://doi.org/10.1515/9783110751987-012

(259e – 266c), requires research. From here the rehabilitation of rhetoric, the rehabilitation which often astonishes critics, but which is compatible with the refusal of the first phase.[2] Plato recognizes the role that knowledge holds. This is the canon for judging both the craft of the author and the craft of the literary production of the past: knowledge, in the creation of the speech, is crucial, because the value of the speech is the value of the content it has. If knowledge is lacking, the speech is harmful, in court or in assembly, for the παιδεία.

Research finds the tool for excellence in διαίρεσις and συναγωγή, separation or aggregation of elements, and in rhetoric Plato recognizes the balance of διαίρεσις and συναγωγή. As an useful field of very few pages in the *Phaedrus* (266d – 272b), tradition on rhetoric is credited with the theory on the narrative or on the refutation, on the praise or on the blame, and on the πίστεις or on the τεκμήρια. Plato inserts here precious cards on Euenus, Tisias, Gorgias, Prodicus, Hippias, Polus, Licymnius, Protagoras, and Thrasymachus. Irony arrives immediately, however, with great commitment to rhetoric for the future. The speech is not capable to bend the soul of the addressee, if the author does not examine the soul, to weave the speech from the perspective of the elements that he recognizes. Not by chance, Plato, more than the content, identifies the aim of rhetoric, to govern the soul of the addressee. The result is the definition of rhetoric: ψυχαγωγία. However, the soul is an unlimited field and rhetoric is not reconcilable with the picket fence of the schoolyard. To postulate the web of rigid rules has not sense.

In the background, the conception of philosophy emerges here, with an unstoppable engagement for the παιδεία. The dialogue pervades rhetoric and makes it like medicine, or superior for μέθοδος: the term is marked in the conscience of the order which the soul has. It is the great debt of rhetoric, the τέχνη of the soul, towards the τέχνη of the body, towards Hippocrates.[3] The perspective has the best impact on the literary production. Of course, the distance that separates rhetoric from the art of the literary production is minimal: if rhetoric is the standard for excellence in the dialogue, the literary production finds the paradigm in the dialogue that Plato offers, nobler than epics or tragedy. In the *Menexenus* (234c – 235c), the relationship between rhetoric and the soul shines in the speech of Socrates on the epitaph through, the peculiar genre of epideictics. Plato observes rhetoric not for the web of precise rules, but for the result that rhetoric has, for the best one, the result which overwhelms the soul.

2 See Centrone 2011, 39 – 55. It is easy to gather the rehabilitation at the fertile origin of the *Rhetoric* of Aristotle or of the commitment of Theophrastus. See Tulli 2003, 969 – 981.

3 Cambiano 1991, 15 – 60, indicates the function that Hippocrates exercises in the general flowering of the τέχνη in the 5th and 4th centuries. See Vegetti 1995, 97 – 122.

In the speech of Socrates, critics discover shadows of irony, so radical as to change the sense of the *Menexenus*. The epitaph delivered by Socrates comes to take on the form of parody: the goal is the refusal of rhetoric.[4] However, is the interpretation plausible? In the relationship between Plato and rhetoric more than one modulation emerges. Of course, in the order that critics establish for the works of the *corpus*, it is not surprising to often see the collocation of the *Menexenus* between the *Gorgias* and the *Phaedrus*, between the refusal of tradition and the foundation of rhetoric for the future.[5] In the speech of Socrates the plot of details hinders belief in irony. The result is clear. Plato in the *Menexenus* indicates the foundation of rhetoric for the future.

2 An ἔπαινος of the Glorious Death

The first sentence, with the theme of the glorious death, is not compatible with shadows of irony. Certainly, the theme comes from the archaic production and Homer develops it with great mastery, for example in the *Iliad* (15, 484–499) with the speech of Hector before the ἀριστεία, before his feats, and tradition alludes to it, for example with Alcaeus (400, 1–2 V.). Here, the speech of Socrates recalls perhaps Tyrtaeus (6 G.–P.), the sequence in elegiac distichs given by Lycurgus (102–110) and in the 5th and 4th centuries certainly famous. Plato cites it in the frame of the praise in the first book of the *Laws* (625c–630d) and the series of epigrams in Kerameikos depends on it.[6] Now, is it plausible to say that Plato rejects Tyrtaeus in the sign of irony? Or does he tease the numerous series of epigrams in Kerameikos? Maybe even with Aeschylus, with the last section of the *Seven* (1005–1011), the theme of the glorious death pervades tragedy and the importance that it has in the history of epitaph is crucial, until the speech in the *corpus* of Demosthenes (60, 27–37). Why does the perspective of the *Menexenus*, if it develops the theme with shadows of irony, not influence the history of the epitaph?

Soon after, καλόν and μεγαλοπρέπεια. Plato wants to emphasize the high level of the burials, the high level of the ceremonies before the δημόσιον σῆμα, the urns on the ἅμαξαι, an adequate support of the φυλαί to the common effort. The description of Thucydides (2, 34, 1–8) for the burials in 431 indicates

4 Plato would arraign rhetoric, because it offers the false and nurtures the content and the form of the epitaph. See Sansone 2020, 36–39.

5 With statistics on style too, far from the substance of research. See Brandwood 1990, 249–252.

6 See Tsagalis 2008, 261–307. Tyrtaeus indicates the function of the literary production that Plato suggests in the ideal city. Like Solon in the *Timaeus* (20d–21d). See Regali 2012, 12–78.

the epitaph as the culmination of the ceremonies, pronounced before the burials in 431 by Pericles.[7] Is it plausible to say that Plato, in the *Menexenus*, mocks καλόν and μεγαλοπρέπεια, the high level of the ceremonies, the result of tradition, if not of precise rules? Or does he tease one of the most solemn passages of Thucydides?

However, beyond Tyrtaeus, the theme of the glorious death, and beyond the ceremonies, the definition that Plato inserts here of the epitaph, ἔπαινος, leaves out shadows of irony. Is the definition the sign of positive assessment or of negative assessment? Plato, in the third book of the *Republic* (392c – 398b), rejects the μίμησις: in the process of the μίμησις Homer is no longer detectable, because he offers deceptive masks for the παιδεία, he is not reconcilable with the increase of the ideal city, because he opens to κακόν. The ban is unavoidable: the landscape that Homer indicates is pale and vanishing, far from knowledge.[8] In the tenth book of the *Republic* (595a – 600b), the distance between epics or tragedy and the purity of the ἀλήθεια is double: Homer nourishes the irascible soul with πάθος and shapes deceptive φαντάσματα on the basis of the γενόμενα, of the real world. Critics note, however, that in the fifth book of the *Republic* (471c – 473b), Plato finds in the μίμησις the tool for the faithful mirror of the ἀλήθεια. In the ideal city the ban does not strike the ἀγαθὸς ζωγράφος who, thanks to the μίμησις, proves the relationship with the paradigm.[9] The plot of the *Republic* is the result of the μίμησις, the faithful mirror of the ideal city. Plato soon after, in the sixth book of the *Republic* (484a – 502a), recalls the ἀγαθὸς ζωγράφος and here the profile transpires. The ἀγαθὸς ζωγράφος proceeds in the sign of the philosophy for the παιδεία. He observes τὸ φύσει δίκαιον καὶ καλὸν καὶ σῶφρον and offers an image of the paradigm with very heigh fidelity. In the tenth book of the *Republic* (606e – 608b), however, the code of the μίμησις that the ἀγαθὸς ζωγράφος chooses, the code reconcilable with knowledge, is the praise: the anthem, ὕμνος, the praise in honor of the gods, and the commendation, ἔπαινος, the praise in honor of the man. Plato, in the *Menexenus*, analyzes the peculiar genre of the epitaph for the content in honor of the man, ἔπαινος, the literary production reconcilable with knowledge: it is the term that Simonides (261,

7 Of course, by the ἀνήρ most gifted with prestige. See Hornblower 1997, 292 – 294.

8 Immediately the ban comes to involve tragedy, above all Euripides, his Phaedra or his Medea. See Naddaff 2002, 67 – 91, 152 – 162.

9 Or with the gods. See Schmitt 2001, 32 – 56. It is not difficult to postulate here, for the condition of the ἀγαθὸς ζωγράφος the happiness that Plato suggests, for exemple, in the *Symposium* (209e – 212a). See Karfík 2016, 257 – 269.

1–9 P.) already offers to show the strength of the epitaph.[10] To grasp here the presence of shadows of irony against the praise in honor of the man, against the literary production that Plato finds useful in the ideal city, has not sense.

Also, it is necessary an investigation that considers the speech of Socrates devoid of shadows of irony: the result that derives from reversing the content and the form is not acceptable. The aim is to capture here the description of the epitaph as the peculiar genre of epideictics practiced in Athens in the 5th and 4th centuries and, at the same time, the mature reflection on the epitaph for the creation of the ideal city.

In the speech of Socrates, καλόν is the term for the high level of the ceremonies: very soon Plato transfers it from the services, with ten urns on ten ἄμαξαι, to the content and the form which the epitaph offers. Hesiod, in the proem of the *Theogony* (1–115), folds the term to show the content and the form of the literary production. Certainly the epitaph has an undeniable success, overwhelms the soul, γοητεύουσιν ἡμῶν τὰς ψυχάς. However, the articulation of the phrase is not simple.[11] In the frame of eight propositions, the sequence γοητεύουσιν ἡμῶν τὰς ψυχάς has the crucial function, because it provides the image of the immediate reaction of Socrates, that confirms the collective reaction: γοητεύουσιν ἡμῶν τὰς ψυχάς, the fascination, the charm of the epitaph overwhelms the soul.

3 The καθόλου of the Ideal City and the Desire for Elegance

Here, the charm of the epitaph depends on punctual characteristics. Plato indicates them after an unusual architecture in asyndeton, among four cola: the sequence γοητεύουσιν ἡμῶν τὰς ψυχάς comes to the culmination. The content is the first one, the presence, on the individual events, of τὰ προσόντα καὶ τὰ μή. If Plato, by means of τὰ προσόντα, on the individual events, indicates the substance, what is the value of τὰ μή? The false? Of course, the epitaph as practiced

10 The definition of the epitaph comes in the famous *climax* for the fallen at the Thermopylae. In the fragment it is plausible to see an *incipit*. Perhaps of an encomion, ἔπαινος, in honor of Leonidas? But we should not exclude the code of the threnos, of the hymn or of the scolion. Steiner 1999, 383–395, recalls the problem of the piety, οἶκτος, that Simonides indicates here.
11 In Burnet edition, the phrase fills six lines. Plato observes the virtuosity of rhetoric by means of rhetoric. See Thesleff 1967, 7–32, 2009, 7–26. The 'aesthetic' conception of the literary production is connected with the fundamental engagement for the παιδεία. See Arrighetti 1998, 307–324.

in Athens in the 5th and 4th centuries does not exclude the false. The code of the praise requires the list of ἀρεταί and the description of ἔργα, for example in the *Symposium* (194e – 195a), in the speech of Agathon.[12] However, the ψόγος must not pollute both the list of ἀρεταί and the description of ἔργα: the protagonist has to sparkle, the peculiar task of the epitaph is to promote the best profile of the fallen. On τὰ προσόντα καὶ τὰ μή, the result is unavoidable. Plato indicates the mixture, on the individual events, that dominates the epitaph practiced in Athens in the 5th and 4th centuries: on the individual events, the truth and the false.

However, the value of τὰ μή is perhaps higher. In the perspective of the ideal city, τὰ προσόντα καὶ τὰ μή alludes to the tale that does not separate the past of the γενόμενα from the plausible, the εἰκός, because it has the paradigm as the aim, not an investigation of the γενόμενα. The past of τὰ προσόντα, not far from the plausible, τὰ μή: that is the tale as fiction. Critics discover the code even in the perspective of Xenophanes (21 B 35, 1 D.–K.) or in the definition that Parmenides (28 B 8, 60 – 61 D.–K.) offers on the deceptive δόξα, on the opinion.[13] In the second book of the *Republic* (376e – 378e), the myth pervades the literary production and it is dangerous for the παιδεία, because it suggests the false. However, in the third book of the *Republic* (382c – 383c), is not dangerous for the παιδεία the myth which manages to intertwine the truth with the false.[14] Certainly, the relationship emerges with famous pages that Aristotle elaborated after, but not by much, the writing of the *Menexenus*, in evident continuity with his discipleship in the Academy. The choice between the speech reporting the γενόμενα and the speech in the code of εἰκός makes inevitable in the *Poetics* (1451a36 – b23) the separation of the καθ' ἕκαστον from the καθόλου, of the particular from the general. The history, the reconstruction of the past, tends towards the καθ' ἕκαστον: the καθόλου dominates philosophy and poetics. Here the distance between philosophy and poetics is not huge, although philosophy remains untouched, poetics instead opens to the plot of the καθόλου with ὀνόματα, the tool for an expression of the καθόλου. On the one hand, also, the particular of the history, on the other, the general that dominates philosophy and

12 It is not difficult to see the theory of an undisputable trend in the 5th and 4th centuries, that Aristoteles records in the *Rhetoric* (1367b 28 – 35). See Vallozza 2016, 231 – 246.

13 See Rispoli 1988, 142 – 169. Hesiod is wrongly reputed, for exemple by Strauss Clay 1988, 323 – 333, the inventor of the text as fiction in the proem of the *Theogony* (1 – 115). See Arrighetti 2006, 3 – 118. Aristotles confirms Plato and it is not easy to believe in the "Auseinandersetzung" that Zimmermann 2015, 47 – 57, indicates.

14 Because it is plausible and it offers the flexible tool to convey the truth, if the recipient is far from the substance of research. See Finkelberg 1998, 161 – 191.

poetics.[15] However, it is no coincidence that here the particular of the history emerges in the account of Thucydides, in the reconstruction of the things Alcibiades carried out and suffered: it is no coincidence, because Plato already indicates the paradigm in the account of Thucydides, the pupil of Lamprus for music and of Antiphon for rhetoric, in the work that contains the speech of Pericles, which, in the *Menexenus* (235e – 236a), through the best combination of pieces, περιλείμματ' ἄττα, the epitaph delivered by Socrates depends on. Aristotle helps to better explain the perspective of the *Menexenus*. Why does Plato reply with blind praise of Athens to the account of Thucydides on the past? Behind the blind praise of Athens, there is the desire to transcend the past in the sign of ἀρετή, in the colors of the ideal city. No doubt, it is the desire to bring the history, the reconstruction of the past, closer to philosophy and poetics, the desire to discover, in the particular, in the καθ' ἕκαστον, the general, the καθόλου. Plato responds to the καθ' ἕκαστον, to the account of Thucydides on the past, with an evident evocation of the καθόλου, in the sign of ἀρετή.

In the speech of Socrates, the charm of the epitaph depends on punctual characteristics. The form is the second one: the desire for elegance. If well elaborated, the epitaph proceeds with an unusual selection of words. This is the value of ποικίλλειν with ὀνόματα: the root of ποικίλλειν, in the *Iliad* (14, 214 – 221) or in the *incipit* of Sappho (1, 1 – 24 V.), tends to show the articulation of things, the girdle and the throne of Aphrodite, rather than the colour.[16] Plato recognizes in the epitaph an unlimited field of words, precious pieces for the *variatio*, and, in the speech of Socrates, he inserts the perspective of Pindar. The relationship of ποικίλλειν with music is evident in the third *Olympian Ode* (4 – 18) and in the fourth *Olympian Ode* (1 – 10): the song proceeds with an unusual selection of words and in the ninth *Pythian Ode* (76 – 79) the acoustic emotion shines through.[17] From the lyric production of Pindar, the desire for elegance pervades the epideictics of the 5th and 4th centuries and, in the frame of the epideictics, the epitaph. It is easy to see how it pervades the epideictics of the 5th and 4th centuries just by scanning the fragment of Gorgias (82 B 6 D.–K.), the epitaph,

15 Horn 1988, 113 – 136, rejects the interpretation that observes the concessive function of ἐπιτεθεμένη with ὀνόματα. See Halliwell 1992, 241 – 260.

16 The articulation often is dangerous, in the sign of deceptive cunning. See Bonanno 1997, 53 – 55.

17 However, the result of ποικίλλειν in the eighth *Nemean Ode* (13 – 16) is the miter of Lydia. See Cannatà Fera 2020, 488 – 489. Among the metaphors of textile crafts, Nünlist 1998, 83 – 125, analyzes the value of ποικίλλειν. In Epicharm (280, 1 – 5 K. – A.) it is easy to see the contact of ποικίλλειν both with an unusual selection of words and with cloths, εἷμα or πορφύρα. See Favi 2020, 273 – 279.

where the plot of rich figures surrounds the memory of the fallen.[18] Plato inserts the root of ποικίλλειν in the description of the γενόμενα, of the real world, and the connotation often is negative. In the eighth book of the *Republic* (557a – 562a) the democratic constitution obeys the norm of ποικίλλειν, of malicious appetite, the result of opulence for the trading of goods on the damaging sea.[19] The monstrous is linked to ποικίλλειν in the *Sophist* (222a – 237a) already after the definition, the first one, which indicates in the sophist no more than an image of an obscure hunter. However, the relationship emerges soon after the definition, the fifth one, which recognizes in the sophist the frightening θηρίον, skilled in brutal demolition.[20] Certainly, the soul thinks it is the best profile of the teacher, an embroidered dress that blossoms in the contact between ἦθος and ἦθος: beyond the plot of ποικίλλειν the cruel vortex of anarchy erupts. Pleasure, the culmination of ποικίλλειν, pervades research in the *Philebus* (11a – 14b). If the cruel vortex of anarchy offers pleasure, pleasure comes from temperance, and if deceptive δόξα, opinion, does not exclude pleasure, pleasure comes from φρόνησις. The punctual task of Socrates here is the breakdown of ποικίλλειν, for the definition of the deepest φύσις which pleasure has.[21]

In the third book of the *Republic* (398c – 401a) pleasure is the purpose of poetics and it comes from the difficult connection between music and text. The need of an advice that can serve the creation of the ideal city is indisputable: after the refusal of ποικίλλειν, of pieces of any kind, παντοδαπαί, Plato suggests the choice of harmony and rhythm in the sign of order, of courage.[22] In the X book of the *Republic* (606e – 608b), the refusal of poetics is the refusal of the speech that is not in relationship to knowledge. The soul travels many

18 See Buchheit 1960, 27 – 38. In the fragment Zajonz 2002, 95 – 96, observes the relationship between the form, the desire for elegance, and the perspective of an extreme skepticism.

19 After the triple demonstration on the βίος that comes from tyrannical φύσις, alternative to the βίος of the king, the ninth book of the *Republic* (588b – 592b) offers an image of man as cluster of the beast and the lion. Cornerstone of metaphors on ἦθος, the beast is prey of ἐπιθυμία, the rudimentary instincts uncontrolled by ἀρετή. Of course, embracing the right implies an alliance with the lion. The result, however, is not assured: the beast, in the myth Chimera or Scylla or Cerberus, has the body in the sign of ποικίλλειν, of thousand masks. See Classen 1959, 19 – 42. Here the lion evokes Homer, for example the simile of Agamemnon in the *Iliad* (11, 84 – 121). See Nannini 2003, 49 – 91.

20 For the need of ἔρις. The monstrous is many-headed, πολυκέφαλος, uncatchable, and indicates the plot of opinion, the false, braiding ὄν and μὴ ὄν. See Notomi 1999, 74 – 162.

21 Beyond the plot of ποικίλλειν, the dialogue of Socrates: case by case, Plato suggests the διαίρεσις to win the plot of ποικίλλειν. See Frede 1997, 98 – 111.

22 See Gastaldi 2013, 25 – 71. It is easy to perceive here the legacy of Damon, perhaps of an embryonic reflection on the μίμησις. See Tulli 2016, 149 – 165.

roads and the spell of poetics nourishes pleasure, that is dangerous in the ideal city. Plato inserts the simile between the spell of poetics and the face, the πρόσωπον, of the young, which soon loses vigour. The result of poetics is dangerous and Plato rejects the plot of ποικίλλειν. However, the fertile field of poetics that is both sweet and useful soon after emerges, both ἡδεία and ὠφελίμη: an immense gain for the παιδεία, if the content is in relationship to knowledge. And the plot of ποικίλλειν? In the prospect of poetics that is both sweet and useful, does the plot of ποικίλλειν contribute? Plato observes the difficult connection between music and text in the second book of the *Laws* (657c – 667b) with great commitment. The life of the ideal city requires ἀρετή, in conflict and in peace time, and research nourishes it. However, the young rejects research, because it is intolerable. Music provides an adequate support. The young learns if he finds research in the mantle of harmony and rhythm, if text flourishes in the mantle of harmony and rhythm. From here, the relationship with evil that proves body.[23] The plot of ποικίλλειν has the positive function of persuasion. Plato suggests three choirs in the ideal city. The first one of children, the second one of Apollo, the deepest one in honor of Dionysus and for this the paradigm soon emerges: the dialogue of Megillos, of Kleinias, of the guest of Athens. Plato opens the βίος of the *Republic*, then, to pleasure, because ἀρετή does not exclude pleasure. Music is an ἐπῳδή capable of transmitting the content, which is perhaps unusual, but indicates τὸ φύσει δίκαιον καὶ καλὸν καὶ σῶφρον. Not by chance, research, in the dialogue of Megillos, of Kleinias, of the guest of Athens, has the strength of an ἐπῳδή. Music fades and soon after Plato observes text. Certainly, research provides knowledge as proof of the τάξις that separates the man from the beast, by decision of the gods.[24] The plot of ποικίλλειν is the result of the literary production that Plato suggests. In the seventh book of the *Laws* (816d – 817e), research, in the dialogue of Megillos, of Kleinias, of the guest of Athens, is the culmination of the tragic production. Beyond speculative harshness it nourishes pleasure and pleasure is useful in enchanting the young.[25]

To sum up, in the *Menexenus*, in the speech of Socrates, the charm that overwhelms the soul comes from the mixture of the past of the γενόμενα with the

23 See Centrone 2021, 157 – 178. The text is an inestimable φάρμακον, which heals. If the author, however, does not place it in the heart of an enjoyable food, it is not loved: an enjoyable food of harmony and rhythm to guide the young. See Schöpsdau 1994, 280 – 318.

24 The choice of style is here discriminating. Knowledge favors the best inspiration for the song and for the intellectual emotion that it brings. See Tulli 2009, 227 – 238.

25 See Giuliano 2005, 253 – 338. In the dialogue of Megillos, of Kleinias, of the guest of Athens, it is easy to see not only the plot of the *Laws*: perhaps Plato recalls the content and the form of the *corpus*. Dalfen 1974, 282 – 325.

plausible, the εἰκός, and can appease the desire for elegance. Plato, reiterating γοητεύουσιν ἡμῶν τὰς ψυχάς, offers κηλούμενος. The term is widespread in the archaic reflection on poetics. It is the term with which Homer, in the *Odyssey* (11, 333 – 334), evokes the Phaeacians' admiration for the song of the νέκυια or the term of Pindar, in the eighth *Paean* (52i, 68 – 71 M.), for the song of the Sirens. Captured, κηλούμενος. However, already ἐξέστηκα indicates the charm. The soul of Socrates is uncontrolled after listening the epitaph. Of course, the last sentence goes in this direction, although the shift is evident: now, the epitaph has the strength of the flute, ἔναυλος. Pronounced by the orator, it slips into the eardrum and remains there tenaciously, so much so that it makes the addressee disoriented. The soul of Socrates wanders among the islands of the blessed, kidnapped by the charm of the speech, for the content and the form.

4 On the Trail of Gorgias

Plato depends on Gorgias here. The third section of the theorem that, in the *Encomium of Helen* (82 B 11, 8 – 14 D.–K.), tends to show the innocence of Helen, the moment of biggest depth, is famous. If tradition, among the causes of departure for Troy, recalls the speech of Paris, the innocence of Helen is indisputable, because the plot of words can unleash the charm that overwhelms the soul. The perspective is identical, the result more radical. If elaborated by rhetoric, the plot of words is an inexorable δυνάστης that arrives to carry out the works of the gods. What sense does the image reveal? Certainly, the definition of Gorgias is sharp. The soul of the addressee feels fear or pain, joy or pity: the πάθος is personal, ἴδιον, but on the basis of individual events far in the past.[26] It is the πάθος that the soul of Socrates feels in the *Menexenus*, the πάθος that μείζων already stresses. The soul of Socrates grows by the individual events that the epitaph evokes, for the καλόν. Soon after, σεμνότης, dignity, and the πάθος here, σεμνότης, comes from the πάθος, because the epitaph nourishes dignity, if it has an influence on foreigners. It is on Gorgias, then, that the relationship between the plot of words and the charm that overwhelms the soul depends. Plato inserts the term γοητεύουσιν, the term κηλούμενος, and the term ἐξέστηκα for the charm. In the *Encomium of Helen*, the first one is the cornerstone of an explicit comparison. The plot of words has the strength of an ἐπῳδή, of the

26 For exemple, the good omen or the sign of mourning. See Ioli 2013, 213 – 249.

spell that hides pain.[27] An explicit comparison which Gorgias then expands upon. The plot of words is an impalpable φάρμακον, the tool for the therapy that offers pleasure or, if necessary, fear and pain, for the therapy that instills courage and often wrongly convinces. After listening the epitaph, the soul of Socrates wrongly wanders among the islands of the blessed. The last sentence, the phrase on the islands of the blessed, is hyperbolic and gives rise to the immediate reaction. It is cruel to tease the orator that the βουλή has compelled into an extreme task. Gorgias transpires again and the relationship comes to involve the lexical field too. Certainly, it is cruel to tease the orator: here the term προσπαίζειν refers to the definition of the play, the not simple σφραγίς in the *Encomium of Helen* (82 B 11, 21 D.–K.), that has plagued critics.[28]

The investigation that Gorgias develops, of course, is plausible. Plato reinforces it. The plot of words is an inexorable δυνάστης that arrives to carry out the works of the gods, it has the charm that overwhelms the soul. But rhetoric has no shadows in the *Encomium of Helen*. Plato instead recognizes them. Rhetoric offers the tool of persuasion for excellence. However, the refusal is unavoidable, if the result prescinds from knowledge. Against deceptive δόξα, Plato indicates the dialogue and the literary production that mirrors research. The charm that overwhelms the soul provides knowledge, if the dialogue suggests the content and the form. It is research, and the questioning of Socrates, that has the strength of an ἐπῳδή in the *Charmides* (155e – 156a). The questioning of Socrates is the spell that joins the truth and rejects the false.[29] In the tenth book of the *Republic* (595a – 608b), the result is indisputable. Research offers the content and the form for the therapy, the precious φάρμακον against deceptive δόξα, the reliable φάρμακον which guarantees knowledge. No more the questioning of Socrates: here the literary production that Plato offers has the strength of an ἐπῳδή. The charm that overwhelms the soul rejects deceptive δόξα, wich depends on epideictics, the fertile field that rhetoric feeds.

27 See Zimmermann 2018, 15 – 27. The soul of the addresse derives from it the impulse toward ἁμαρτήματα and ἀπατήματα, the culmination, of deceptive δόξα. See Schollmeyer 2021, 217 – 288.

28 For the degree of belief in the substance of the speech. See Verdenius 1981, 116 – 128.

29 It is easy to see the relationship with famous pages of the *Meno* (79d – 80d), where the questioning of Socrates recalls the torpedo, which benumbs the addressee. See Flamigni 2017, 11 – 28. Of course, in this direction Alcibiades evokes Marsia, the strength of the flute, in the *Symposium* (215a – d).

5 Epideictics in the Ideal City

However, in the *Menexenus*, the mature reflection that Plato develops in the speech of Socrates does not yield the dialogue. After the allusion to Thucydides, after the mention of Pericles, the epitaph: why not the dialogue? Plato indicates the reason in the speech of Socrates. Certainly, he considers the epitaph as the peculiar genre of epideictics practiced in Athens in the 5th and 4th centuries. However, in the speech of Socrates he suggests that it is possible to conceive the epitaph as the peculiar genre that can disseminate knowledge.[30] In short, the epitaph is not to be condemned, because it can radiate the charm that overwhelms the soul: if the content does not exclude knowledge, if it hints knowledge, the epitaph is not dangerous.

Does the epitaph delivered by Socrates radiate the charm that overwhelms the soul? It offers the account that comes from the mixture of the past of the γενόμενα with the plausible, the εἰκός. Plato recognizes in the past of Athens the sign of the paradigm, τὸ φύσει δίκαιον καὶ καλὸν καὶ σῶφρον. In the *Menexenus* (239a – 240e), the plan to fight in defence of the weak already nourishes politics in the first section, in the myth: the virtue shines in defence of the Argives against the Thebans and in defence of Heracles against the army of the Argives. Certainly, the πρόφασις that Darius has for the aggression is futile. However, Greek freedom depends on the triumph of Marathon and the strength of the paradigm emerges in the triumph: to show the relationship between the glory of Salamis and the glory of Marathon, here Plato inserts the verb ἀποβλέπω which, in the VI book of the *Republic* (500b – 502a), conveys the relationship between the copy and the purity of the paradigm.[31] Cleon arrives at Pylos in 425, soon after disembarks in Sphacteria and returns with 292 prisoners, which Athens gives back to Sparta in 421 on the basis of the Peace of Nicias. In the *Menexenus* (242c – e), the light of the triumph, of the result of military genius, is the culmination for the first phase of the Peloponnesian War. But why does Plato affirm that Athens gives back the prisoners to Sparta before the draft of the Peace of Nicias? It is hard to challenge the concatenation: Thucydides (5, 16, 1 – 19, 2) provides the text of the Peace of Nicias and the text sanctions that Athens assumes the control of Panactus and gives back the prisoners to Sparta. In short, the reconstruction of the past in the *Menexenus* is contradicted here by

30 That is the result, when Plato, in the *Phaedrus* (274c – 277a), observes the μάθημα of Theuth, the φάρμακον of the memory. See Gaiser 1984, 77 – 101, Gaiser 2004, 29 – 41.

31 See Pappas/Zelcer 2015, 143 – 213. It is the relationship in the sign of the philosophy for the παιδεία with very heigh fidelity. See Paquet 1973, 357 – 415.

the Peace of Nicias. What can we guess? Plato does not ignore the document, certainly famous in the 5th and 4th centuries, and does not ignore the investigation that Thucydides (4, 3, 1–41, 4) offers on Pylos and on Sphacteria. It is not Athens, but the βουλή of the ideal city that gives back the prisoners before the draft of the Peace of Nicias, or better, if it is appropriate to conceive the perspective of the *Menexenus* regardless of the relationship to the particular, it is the image of the ideal city that gives back before stipulating. Plato rejects the document on the basis of the strength of the paradigm: the βουλή of the ideal city saves the prisoners.[32] It is easy to involve several pages of the *Menexenus*, the description of the campaign in Sicily and of the Corinthian War or the investigation of the condition that Athens suffered in 404 and on the basis of the Peace of the King. The result is clear. Behind the lies, behind the blatant stretches, Plato wants to depict the image of the ideal city, rather than grasp the plot of the γενόμενα, if not shadows of the past.[33]

The desire for elegance, however? It is easy to see the epitaph delivered by Socrates as the result of rhetoric in the sign of ποικίλλειν, with an unusual selection of words, precious pieces for the *variatio*. The sequence of metaphors and euphonies is dotted by the taste for homeoteleuton, assonance, hyperbaton, epanastrophe, asyndeton, parallelism.[34] This is not enough. Because Plato indicates the epitaph delivered by Socrates as the paradigm for the future, as the paradigm that an author of poetics must follow. This is the meaning of the preterition that, in the *Menexenus* (239a–c), opens the account. It is dangerous the song on Eumolpus and the Amazons, on the campaign in defence of the Argives against the Thebans and in defence of Heracles against the army of the Argives, on the individual events that the literary production of the past already recalls. To lose in the competition is unavoidable. Plato comes to discover an untrodden field and suggests it for the future, προμνώμενον ἄλλοις ἐς ᾠδάς: it is the play of ποικίλλειν with ὀνόματα or of the κοσμεῖν, as he confirms.

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32 An awareness of the common origin stifles anger. See Loewenclau 1961, 42–126. The solution of Tsitsiridis 1998, 304–310, is not plausible: the sequence obeys the order of an accurate *gradatio* that stresses the importance of the Peace of Nicias.

33 Here, the constellation shines that Plato offers in the *Timaeus* and *Critias* and the constellation indicates the way to intertwine the reconstruction of the past and the creation of the ideal city. The content of the tale of Atlantis in the *Timaeus* and in the *Critias* is the image of the ideal city, like the account which pervades the epitaph in the *Menexenus:* the code is the same. In the ambiguous flow of the γενόμενα Plato recognizes the creation of the ideal city. See Tulli 2013, 269–282.

34 In the prosopopoeia, for example, that Clavaud 1980, 229–244, analyzes. Dionysius of Halicarnasssus, with famous pages of the *De compositione* (18, 9–14), recognizes the articultation of the ἀγωγή in the *incipit*. See Vatri 2020, 151–168.

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Dino De Sanctis

Erga Gynaikon: Female Supremacy in the Hesiodic *Catalogue of Women*

Abstract: The Hesiodic *Catalogue of Women* represents an interesting field of investigation to observe how and from which mythical background the female supremacy has been examined in the early Greek epic. The superiority of women is here related to the birth of a heroic race which in Hesiodic production appears as a recurrent literary motif. In this way the *Catalogue* fits itself into a consolidated poetic cycle between *Theogony* and *Erga*.

Keywords: Early Greek poetry; Hesiodic cycle; proem; narrative technique; epic stories.

Over the past twenty years, studies in the Hesiodic *Catalogue of Women* have enjoyed a remarkable and unexpected impulse.[1] This revival of interest in the poem would not have taken place, however, if M. L. West had not dedicated in 1985 to the *Ehoiai* a seminal and crucial monograph, *The Hesiodic Catalogue of Women. Its Nature, Structure, and Origins*, which continues to present itself as an essential support for those who want to investigate the development of a story that is densely articulated and, in most instances, elusive due to the fragmentary state in which it arrived.[2]

Today, therefore, thanks to a mature attitude and new hermeneutical approaches, it is possible to consider together the numerous problems that the *Catalogue of Women* offers and try to understand the reasons and forms of the storytelling that characterize a poem whose composition is uncertain on a chronological field, placed by critics from the 8th to the 6th century, albeit with the possibility of any subsequent insertions.[3] At the same time, it is also possible

1 I read this paper in L'Aquila during a seminar which is organized by Laura Lulli, Andrea Ercolani and Livio Sbardella whom I thank for their valuable advices and φιλία. Giulia D'Alessandro, with patience and friendship, has corrected and improved this English version.

2 See West 1985, 3–4. "The *Catalog* was a poem of ambitious scope and lenght [...] which constructed a map of the Hellenic word in genealogical terms": so Hunter 2005, 1. On the *Catalogue*'s papyrogical tradition now see Casanova 2008.

3 According to Janko 1982, 86–87, numerous linguistic elements in the poem are coeval with the Hesiodic period. West 2008, 40–42, for the date of the *Catalogue* suggests a post-Stesichorean period, in which the conspicous modernity of Empedocles is not yet present but a series of compound adjectives, a talisman of poetic emancipation, begins to emerge. See also Cassio 2009.

 https://doi.org/10.1515/9783110751987-013

to reconsider, as I believe, with greater awareness the message that has been entrusted to the *Catalogue of Women*, as I would like to try to illustrate. Interpretations in this sense are not univocal. From a unitary reading that sees the *Ehoiai* as a necessary link between *Theogony* and *Erga*, or from the figure of the monumental Hesiodic poet, we have come to a recent political interpretation that in the *Catalogue of Women* identifies the echo and the result of the social tensions within the Greek aristocracy at the end of the 6th century towards the emergence of the so-called "middling ideology".[4] These different approaches are linked to the attribution or otherwise of the poem to Hesiod. Regardless of the authenticity of the *Catalogue of Women*, a long-standing and unsolvable problem, I think it is necessary to consider the terms of the question in this way: when it was composed and transmitted within an Hesiodic tradition, the *Catalogue* focuses a necessary moment of passage from the cosmogonic vision that emerges in the *Theogony* to the protrectic conception that transpires in the *Erga* in an articulated *continuum*, a kind of cyclic tradition on the model exemplified by the epic one, conditioned by complex mechanisms of transmission.[5]

Genealogical production, such as that of the *Ehoiai*, certainly has genetic and compositional links with oral performance at several levels: the articulated structure, woven in precise and dense meshes, allows an arrangement of elements, narrative cards and formulas that find an accurate space in the hexameter. It is also true, at the same time, that complex poetic productions such as the *Catalogue* – as much as the *Iliad* and the *Odyssey* – cannot be escaped *tout court* to the help of writing, as soon as this has offered itself as a mandatory support also for the performance.[6] The help of writing has certainly facilitated both the organization and the development of an architecture that provides clear narrative structures as well as inevitable remote calls.[7] Certainly, finally, it is undeniable that in every catalog structure by its very nature it is easy to

Lulli 2016, 207–213, with valid arguments, proposes a detailed linguistic research about the Hesiodic *corpus* influenced by rhapsodic performance.

4 On "middling ideology" see Ormand 2014, 1–51. The profile of monumental poet emerges from West 1985, 25–137. Arrighetti 1998, 445–447, underlines the substantial compactness of the poem, well inserted in the Hesiodic production. A recent exam of the Hesiodic *corpus* is in Cingano 2009, 91–98.

5 On this Hesiodic cycle "da intendersi appunto come possibilità di aggregazione variabile nei poemi nella prassi rapsodica", see Ercolani/Sbardella 2016, 10–12. See also Solmsen 1982, 26–30, for the problem of textual consolidation of Hesiodic production, and Nobili 2009, 110–124.

6 This perspective is explained by Sbardella 2012, 38–50.

7 See Casanova 1967, 31–46, for the definition of "entry" and "genealogical return". See also Cohen 1983, 81.

open the meshes that characterize it, and alter them, through insertions – or interpolations – which then enter in the text and fix themselves here to be transmitted later in other any performances or in the context of tradition.[8] All the more so in a poem such as the *Catalogue*, whose "entries" could multiply thanks to the canonical formula ἠ' οἵη / ἠ' οἷαι, so peculiar as to become one of the poem's titles in the tradition.[9] But even in the face of these situation, it is perhaps possible to evoke an appropriate basic principle: to try to motivate a relevance in the context of narration, when it is possible, with a view to their fruition and their contextualization, once these insertions, transmitted with the poem, of the poem become an integral part.[10]

For all this, I would like to dwell on some aspects of the *Catalogue of Women*, observing them within a broad system which is the one which has *Theogony* and *Erga* as its extremes, and investigate the function to which these aspects are called to respond in the poem. In my exam I will analyze: 1. the *Catalogue*'s proem; 2. the profile of the heroines that Hesiod immediately observes in the *propositio thematis* such as γυναῖκες ἄρισται.

1 The Proem

The *Catalogue of Women* begins with an invocation to the Muses, in some codes transmitted after the last verse of *Theogony* (1021–1022) in a section particularly studied by critics in relation to its authenticity.[11] The unions between mortal women and male deities are now discussed (fr. 1, 1–22 M.–W. = fr. 1 H. = fr. 1 Most):

Νῦν δὲ γυναικῶν ⌞φῦλον ἀείσατε, ἡδυέπειαι
Μοῦσαι Ὀλυμπιάδε⌟ς, κοῦραι Διὸς αἰγιόχοιο,
ᾗ τότ' ἄρισται ἔσαν [καὶ κάλλισται Διὸς αἰγιόχοιο
μίτρας τ' ἀλλύσαντο δ[ιὰ χρυσέην τ' Ἀφροδίτην
μισγόμε⌟ναι θεοῖ⌟[ιν

8 Ercolani 2016, 29–33, for example, starting from the study of fr. 343 M.–W. (= fr. 294 Most), with the birth of Athena from the head of Zeus (also proposed in *Theog.* 886–900) hypothesizes the existence of external alternative sections that run parallel in the the Hesiod corpus and influence each other advances during their transmission.

9 See Kyriakou 2017, 137–138.

10 As is well known, the problem of authenticity riddles the end of *Theogony* and the so-called *Days*. See West 1966, 397–399, and West 1978, 346–350. *Contra* Arrighetti 2007, 266–269.

11 The verses are present in a part of the Medieval tradition of *Theogony* (*Vat. Graec.* 915, *Par. Graec.* 2763 and *Laur. Conv. Supp.* 158). See West 1966, 437.

ξυναὶ γὰρ τότε δα⌊ῖτες ἔσαν, ξυνοὶ δὲ θόωκοι
ἀθανάτοις τε θε⌊οῖσι καταθνητοῖς τ' ἀνθρώποις.
οὐδ' ἄρα ἰσαίωνες ομ[
ἀνέρες ἠδὲ γυναῖκες ε[
ὀ̣σσόμεν[ο]ι φρ[εσὶ] γῆρ[ας
οἳ μὲν δηρὸν ε.[..]κ.[
ἠΐ̈θ]ε̣οι, τοὺς δ' εἶθ[αρ] ε̣.[
ἀ̣[θ]ά̣νατ̣οι [νε]ότητ̣[
τ̣ά̣ω̣ν ἔσπετε μ[οι γενεήν τε καὶ ἀγλαὰ τέκνα
ὅσσ[αι]ς δὴ παρέλ[εκτο πατὴρ ἀνδρῶν τε θεῶν τε
σ]περμ[αί]νων τὰ ⌊πρῶτα γένος κυδρῶν βασιλήων
.]ς τε̣ Ι̣[ο]σειδάω[ν
..... .]ν τ' Ἄρης [
.....] .ηι.ιντ[
ὅσσαις θ' αὖθ' Ἑ]ρμῆς .[
ἠδ' ὅσσαισι] βίη Ἡ[ρακλῆος

3 Merkelbach 4 West 5 θεοῖ̣σ̣[ιν West 10 Lobel 12–13 Lobel 14 Stiewe 15 Hirschberger 17 Merkelbah 18, 20–22 Stiewe

The opening νῦν inserts this invocation in the proemial model that characterizes the beginning of the *Catalogue of Ships* in a larger narrative context already in progress, in the II book of the *Iliad* (484–493), after the proem on the μῆνις (1, 1–9).[12] In the *propositio thematis* of the *Catalogue of Women* addressed to the Olympic Muses it is now, νῦν, required to sing a new topic: the γυναικῶν φῦλον (1) and, more precisely, the ἄρισται women that once, τότε, after having loosened the virginal girdles mingled with the gods (3).[13] The story, however, does not open immediately with the ἔργα of one of these women. The proem proposes a chronological contextualization as well as the reason why this loving unions between gods and women are made possible: at that time, in fact, both men and gods shared canteens and seats (6) and life for mortals did not have the same duration, οὐδ' ἄρα ἰσαίωνες (8).[14] The δαῖτες and the θόωκοι recall the convivial dimension but they suggest also the idea that in the chronological phase in which the story of the *Catalogue* develops, there is a clear κοινωνία between the

12 A discussion on this point is offered by de Jong 2004, 45–53. The adverb νῦν at the beginning of poem or in invocation, for example, in early Greek poetry is testified by Antimachus of Teos in *Epigonoi*, νῦν αὖθ' ὁπλοτέρων ἀνδρῶν ἀρχώμεθα, Μοῦσαι (fr. 1 Bernabé): Davies 2014, 107–112. See also Timon, fr. 1 Di Marco ἔσπετε νῦν μοι ὅσοι πολυπράγμονές ἐστε σοφισταί; Apoll. 1, 20 νῦν δ' ἄν ἐγὼ γενεήν τε καὶ οὔνομα μυθησαίμην.

13 See De Sanctis 2006, 12–16, and Strauss Clay 2005, 27–30.

14 According to Irwin 2005, 65–83, with τότε from proem emerges a chronological scenario perceived as polar respect to the Athenian socio-political context at the end of the 6th century.

human and the divine element that allows continuous interaction. In this way in the proem the detail of commonality, well-marked also on the phonic and rhythmic level, with the repetition of the adjective ξυνός, becomes a primary factor, on which the attention of the hearer is concentrated.[15] Of course, in the light of Homeric production, the reader of the *Catalogue* is accustomed to knowing that gods and men benefit from reciprocal relationships but the type of interaction to which allusion is made in this *incipit*, appears different from that which Homer recalls or seems to presuppose in the *Iliad* and in the *Odyssey*. In the proem, in fact, as the τότε suggests, it is understood that the time of the story is earlier than that in which Achilles' anger in Troy develops or Odysseus's return to Ithaca occurs. In other words, in the *Catalogue of Women* the proem distances itself, so to speak, from Homer not only or not so much from a narrative point of view, going beyond the μῆνις οὐλομένη and the ἀνὴρ πολύτροπος, but also and above all from a chronological point.[16]

Moreover, both in the *Iliad* and in the *Odyssey* we have references to the same chronological dimension in which Hesiod observes the possibility of the κοινωνία of life between human and divine as in the *Catalogue*, but here we have the impression that this commonality is ending or is now gone because of the Trojan war.[17] In only one case, in Homer, as far as I am aware, instead, with surprising clarity, is the κοινωνία between men and gods themed in relation to a special type of humanity that survives the Trojan war: the Phaeacians. In the VII book of the *Odyssey*, when Alcinous arranges the reception for the newly arrived guest and prepares the escort that can bring him back home, at the end of his speech, he adds an interesting observation (199 – 205):

> εἰ δέ τις ἀθανάτων γε κατ' οὐρανοῦ εἰλήλουθεν,
> ἄλλο τι δὴ τόδ' ἔπειτα θεοὶ περιμηχανόωνται.
> αἰεὶ γὰρ τὸ πάρος γε θεοὶ φαίνονται ἐναργεῖς
> ἡμῖν, εὖθ' ἕρδωμεν ἀγακλειτὰς ἑκατόμβας,
> δαίνυνταί τε παρ' ἄμμι καθήμενοi ἔνθα περ ἡμεῖς.
> εἰ δ' ἄρα τις καὶ μοῦνος ἰὼν ξύμβληται ὁδίτης,

15 Repetition of ξυνός seems to have been programmatic in order to strengthen the idea of close commonality between men and gods. See Clauss 1990, 130: "one can safely assume that they (i.d. Hellenistic scholar-poets) had *Cat*. fr. 1, 6 in mind when they employed the ξυν- γάρ ... ξυν- δέ phrase".

16 See Graziosi/Haubold 2005, 36 – 38.

17 The account about Trojan war emerges from the *Catalogue* at the end of the so-called V book after the description of Helen's wedding (fr. 204, 96 – 104 M.–W. = fr. 110 H. = fr. 155 Most) and it is here attributed to a new Olympic ἔρις and an extraordinary plans of Zeus. See González 2010, 375 – 383. The rich analysis of Cingano 2005 is now essential for the section on Helen's wedding.

οὔ τι κατακρύπτουσιν, ἐπεί σφισιν ἐγγύθεν εἰμέν,
ὥς περ Κύκλωπές τε καὶ ἄγρια φῦλα Γιγάντων. 205

Alcinous assumes that the stranger who has come to his island may be a god. This thought agitates the king because, in this case, Alcinous does not understand the reason why an immortal must take human form and not present himself as usually happens to Scheria in his divine aspect.[18] Alcinous, therefore, suspects that the gods are plotting something nefarious for the Phaeacians, because the gods, as the king remembers, usually appear in their splendor without any problem, when sacrifices are made, as much as they usually sit together and next to the Phaeacians.[19] It is no coincidence that those who walk the island alone, it is not difficult to come across an immortal, given the proximity, or rather a direct συγγένεια, between the Phaeacians and the gods, the same proximity that the θεοί also have in common with the Cyclops and the Giants. The information that Alcinous offers in this speech is decisive for understanding the perspective of the κοινωνία in the *Catalogue*. The Phaeacian ancestry which, as is known, is destined to become extinct and which distinguishes itself as hyper-society compared to the mankind of the *Odyssey*, seems to maintain some characteristics recognizable in the breed that Hesiod refers to in the *Ehoiai* project: the closeness to the gods, also on the genetic level, as well as coexistence with the gods in particular moments of existence.[20] After all, the verse δαίνυνταί τε παρ' ἄμμι καθήμενοι ἔνθα περ ἡμεῖς is very similar to the verse of the *Catalogue* ξυναὶ γὰρ τότε δαῖτες ἔσαν, ξυνοὶ δὲ θόωκοι, so as to evoke both in the *Catalogue* and in the *Odyssey* the resonance of a common and consolidated tradition that goes in this direction.[21] The difference between *Catalogue* and *Odyssey*, on the other hand, lies in the fact that, while the κοινωνία to which Alcinous alludes, is an exceptional privilege of the Phaeacians alone with respect to the rest of the mankind in the *Odyssey*, for the *Catalogue* the κοινωνία referred to

18 See Hainsworth 1982, 245.

19 See de Jong 2001, 181.

20 For the Pheacian-society as a kind of hyper-society with respect to the basic level represented by the Cyclops, see Dougherty 2001, 122–127.

21 On this parallelism between the *Catalogue* and Alcinoos' speech see Hirschberger 2004, 166. The recovery of this image in the Latin production is remarkable. As notes Pontani 2000, at the end of the *carmen* 64 Catullus (384–386), with the divinities that were once *praesentes*, develops this motif of κοινωνία between human and divine from Hesiod.

in the proem is normal and shareable by all men and women who live in the themed τότε.[22]

But not only: about this τότε a very interesting problem arises, in my opinion, within the Hesiodic cycle. If we read these first verses of the *Catalogue*, we can ask ourselves in what terms the motif of the κοινωνία could be reconciled, for example, with the times and with the story of Mecone in the *Theogony* (535–569) as well as with the myth of the five races that, instead, we find in the *Erga* (156–173e), that is to say with other periods of primordial humanity in which a clear relationship between men and gods is made explicit or other primitive phases of humanity are outlined. In other words: is it possible to insert the τότε proposed in the *Catalogue* in Mecone or in the race of the heroes of the *Erga?* And if an affirmative answer is given this question, in which chronological relationships should we understand the story of the *Catalogue?*

About these questions, it is opportune to reconsider the verses that follow the description of the commonality between men and gods in the *Catalogue*'s proem (8–13):

οὐδ' ἄρα ἰσαίωνεϙ ομ[
ἀνέρες ἠδὲ γυναῖκες ε[
ὀϙσόμεν[ο]ι φρ[εσὶ] γῆρ[ας
οἳ μὲν δηρὸν ε.[..]κ.[
ἡΐ[θ]ε̣οι, τοὺς δ' εἶθ̣[αρ] ε̣.[
ἀ̣[θ]ά̣νατ̣ο̣ι [νε]ότητ̣[

Here, in a brief narrative expansion the vital faculties of mankind are recalled as new topic in the poem. The perspicuity of the verses greatly depends on integrations followed for their reconstruction. For example, Hesiod considers men ἰσαίωνες in relation to the gods, compared to women or with respect to contemporary humanity?[23] Beyond this problem, I believe, it is quite certain that in the τότε considered in the proem both men and women were not, through an instructive Hesiod *hapax*, ἰσαίωνες, that is to say they did not have the same course or standard of living, since some of them probably died as old men, others lived long as young people, still others were finally torn away from the sunlight by the will of the gods.[24] What is certain is that, in any way we evaluate all the lifetimes

22 On the transitory nature of Phaeacian world, ready to extinction according to an old prophecy, see de Roguin 2007, 247–253.

23 Hirschberger 2004, 166–167, offers a reach *status quaestions* on this point.

24 There are nomerous translations for this epithet. See e.g. Colonna 1977, 125: "né invero la durata della vita era la stessa [...]"; Pérez Jiménez/Martínez Díez 1978, 223: "Tampoco de aquélla (en la tierra), hombres y mujeres tenían una esperanza de vida (igual ala de los venturosos dio-

listed in the narrative digression of the proem, it is easy to think that the perspective in the light of which humanity is now observed as a whole is not analogous to that which transpires in Mecone or in the myth of the five races, even if there are many underlying analogies.[25] In the *Catalogue*, a broad moment of coexistence is immediately focused in which one can logically account for the unions between γυναῖκες ἄρισται and gods. In Mecone, however, the Hesiodic tradition places in a precise phase of human existence the origin of the separation between men and gods, as the verse καὶ γὰρ ὅτ' ἐκρίνοντο θεοὶ θνητοί τ' ἄνθρωποι (535) seems to reveal.[26] But above all in *Theogony*, the intent to show the impossibility of deceiving the mind of Zeus is connected to the story on Mecone. In the same way the story about the five races in the *Erga* presents clear convergences with the story that emerges from the *Catalogue*, if only because the heroes whose extinction takes place during the war fought in Troy because of Helen and in Thebes for the flocks of Oedipus (164–174).[27] But with the wide λόγος of the five races, in which the heroes are only one of the four pre-existing γένη compared to the time of the poet, the *Erga* want to explain the origin of evil in the world of contemporary men unlike what the *Ehoiai* seem to reveal. In other words, while examining similar moments in which the possibility is given for the human to have a direct relationship or a privileged contact with the divine, the *Theogony*, the *Catalogue* and the *Erga* decline this same motif autonomously and for etiological reasons. In this Hesiodic cycle there are some common and contiguous cards in the story's development, but their composition makes possible a different and ever new presentation of the problem investigated, in this case the humanity of the past, without risking sensational inconsistencies in front of their use.[28] After all, on closer inspection, this way of telling a fact or event does not arouse wonder nor appears isolated in the Hesiodic production but seems to reflect a basic principle that regulates the reflection available to the archaic poet: the possibility of focusing the reality in the light of multiple perspectives and, at the same time, analyzing it through approaches that, although sometimes antithetical, are not contradictory. An emblematic case, as

ses)"; Arrighetti 1998, 101: "ma la durata della vita non era uguale [...]"; Most 2007, 47 "and yet not equally long-lived [...]"; Cassanmagnago 2009, 267: "però non del medesimo tempo di vita alla pari con gli dei immortali [...]".

25 The commonplaces of the primeval age in Greek and Latin literary production are identified by Gatz 1967, 1–7.

26 See Arrighetti 1998, 347–349, and recently Ricciardelli 2018, 153–156.

27 On this point see De Sanctis 2012, 26–29.

28 This possibility, explained by Rowe 1998 as a theory of multiple approaches, in archaic production acts both on the conceptual level and on the properly narrative level.

is known, in this direction is offered by the palynodic section that opens the *Erga* with the two Ἔριδες (11–26) with respect to the only dispute καρτερόθυμος and στυγερή which, instead, is a firm genealogical assumption in *Theogony* (225–226).[29]

2 The Profile of the Heroines and Female Supremacy

Now, however, if for the *Theogony* and for the *Erga* the story about humanity prior to that of the poet responds to precise etiological and protrectic needs, what function is the one described in the *Catalogue* intended from the outset? I would like to approach this not simple question that brings us to the heart of the message that the *Catalogue* intends to convey by observing the characteristics and profiles of some γυναῖκες of which the ἔργα are told starting from the epithet that characterizes them in the proem: the *Ehoiai* celebrate the events of γυναῖκες ἄρισται.[30]

Already in itself the proemial definition of γυναῖκες ἄρισται raises many problems. The women in this poem enjoy a cumbersome epithet in the epic tradition since the beginning of the poem and in this respect they constitute its *propositio thematis*. It would be spontaneous to think that this female supremacy is essentially motivated in the light of the absolute and unparalleled beauty of every single γυνή, a reason that would push the gods to have a strong erotic desire for her and to generate an offspring of κύδιμα τέκνα. It is not a case, for example, that Merkelbach makes up for the incomplete v. 3 with the integration [καὶ κάλλισται κατὰ γαῖαν.[31] Yet the motif of the κάλλος which is central to the *Catalogue* does not seem to satisfy in its entirety the polysemy which assumes the ἄριστος-character of the γυναῖκες. In other words: it is certain that all the γυναῖκες ἄρισται are also γυναῖκες κάλλισται, but their charm does not summarize or exhaust all the qualities that distinguish them individually. It would seem that the charm unites all the women of which the *Catalogue* speaks but, at the same time, this gift is too generic to motivate an absolute supremacy, because in fact the women of the poem are mostly involved in actions and facts of

29 A lucid study is devoted to the problem of palinody in the *Erga* by Arrighetti 1998, XXXIV-XXXVII.

30 See Arrighetti 2008, 20.

31 On the beauty-ideology in Hesiod, see Konstan 2014, 43–44.

wider scope that transcend beauty.[32] Indeed, sometimes the intellectual aspect seems to be considered on the same level as the aesthetic one: for example often many women are experts in beautiful works, ο]ἵαί τε θεαί, περικαλλέα [ἔργ' εἰδυῖα]ι, as goddess (fr. 23a, 4 = 15 H. = 19 Most, for the daughters of Thestios, fr. 26, 6 = fr. 17 H. = fr. 23 Most for the daughters of Porthaon, fr. 129, 23 = fr. 46 H. = fr. 77 Most for the daughters of Proitos); the Deucalionid Mestra is πολυίδρις (43a, 57 = fr. 37 H. = fr. 69 Most); Eurydice daughter of Lacedaemon, is καλλιπάρηος ἐὺ πραπίδεσσ' ἀραρυῖα (fr. 129, 13 M.–W. = fr. 46 H. = fr. 77 Most). An eloquent case is constituted by the story about Alcmene, wich became the *incipit* of the *Shield* (fr. 195 M. – W. = *Asp*. 1–54). Here the daughter of Electryon exceeds the φῦλον of contemporary women for beauty and physical qualities but the most decisive characteristic consists in the fact that none of the women that the mortals generated to the gods can match Alcmene on an intellectual level, νόον γε μὲν οὔ τις ἔριζε / τάων ἅς θνηταὶ θνητοῖς τέκον εὐνηθεῖσαι (4–5).[33] In addition to these elements, another decisive fact should not be forgotten: the *Catalogue* does not always describe the union of a god with one of the γυναῖκες ἄρισται. Indeed, in the genealogical links of the poem there are much more beautiful women who join heroes than equally beautiful women who enjoy the love of a god. The κάλλος, therefore, is not a unique key to solve the profile of these γυναῖκες or, at least, it does not completely satisfy the reasons for their supremacy. The excellence of the protagonists of the *Catalogue*, for all this, I believe, must be identified in another direction and in contact with their procreation function. The women are ἄρισται because they are capable of generating, regardless of a direct union with the gods in that τότε, a race of ἄριστοι not surprisingly in the account of the five races of the *Erga* considered as γένος ἄρειον and θεῖον of ἡμίθεοι (159–160). The supremacy of the poem's γυναῖκες, in this way, can be understood as implicit in the function of giving life to an excellent pedegree, as if the epithet ἄριστος had, so to speak, a proleptic function with respect to the main characteristic of the generation that it comes from women.[34]

32 See, in this regard, Kyriakou 2017, 139–142. The events of Mestra (fr. 43a M.–W. = fr. 37 = fr. 69 Most) and Atalanta (frr. 73–76 M.–W. = frr. *2-*3-*4 H. = frr. 47–50–48 Most), for example, assume considerable importance in this sense. See also Casanova 1977 and Ziogas 2013, 148–164.

33 The praise towards Electryons' daughter seems to be based on the words that Antinoos addresses Telemachus in the book II of *Odyssey* on the heroines of the past, Tyre, Alkmena and Mycene, to whom Penelope is equated for her νοήματα (119–122). For this speech see West 1981, 255–256. Recent analysis of the female epithets in the Hesiodic *Catalogue* proposes Mureddu 2008.

34 On the narrative prolepsis in the Hesiodic *corpus*, see Lauriola 1999.

But this supremacy also seems to ignore respect or adherence to a codified ethical system of values. The women of the *Catalogue* do not always pursue a particular form of κλέος nor are they always interested in this in a main way. To my knowledge, although the term κλέος is used three times in the poem (fr. 37, 1, fr. 70, 5, fr. 199, 9 M.-W.), only in one case is it directly related to a It is not surprising that this woman is Helen: her κλέος is μέγα so much that Protesilaos and Podarces ask her to wife with rich gifts (fr. 199, 5 – 11 M. – W. = fr. 108 H. = fr. 154d Most).[35] On the contrary, it must be said that in the fluid and not yet stabilized world such as that of the *Ehoiai*, there are various types of men and women diversified on the behavior side and often the γυναῖκες ἄρισται with their spouses and individually are stained with faults, intrigues, ethical deviations that lead to serious consequences and punishments by the gods. With this in mind, the *Catalogue* proposes, gradually, a real decline of the heroes.[36] Think, for example, of the illicit behavior of Alcyone with Ceyx, to which I will return shortly to the Aeolian-pedegree that appear as new Zeus and Era (fr. 10a, 83 – 98 M.–W. = fr. 5 H. = fr. 10 Most). The same sacrilegious attitude towards the divine world is also repeated by sacrilegious Salmoneus (fr. 30, 16 M.–W. = fr. 20 H. = fr. 27 Most), punished with segregation in the Tartarus, together with his wife, children and his unfair πόλις, a segregation from which it is spared only the daughter, the pure Tyro εὐπλόκαμος, who opposes herself to the father's ὕβρις (fr. 30, 24 – 35 = fr. 20 H. = fr. 27 Most).[37] After the long *aristia* in which Periclymenus imposes himself as the only defender of Pylos against the sack of Heracles, the wrath of Athena against the son of Neleus is enough, because the fate of this hero ὄλβιος as a valiant soldier, gifted with ability metamorphic, reveal his statute of νήπιος (fr. 33a, 13 – 29 M.–W.= fr. 25 H. = fr. 31 Most).[38] The brazen behavior of deceiving Sisyphus who does not accept the decisions that Zeus has established against his γένος both with Mestra and with Eurynome (fr. 43a M.–W. = fr. *4 H. = fr. 48 Most) can also be assumed in this direction.[39] The madness of Athamas, deprived of his mind by the father of the gods (fr. 69*M.–W. = fr. 29 H. = fr. 39 Most), does not escape this perspective. A case of arrogance and failure to respect divinity characterizes the story about the daughters of Proitos, that from Era were punished with the infamous mark

35 Arrighetti 2008, 23 – 26, at the end of the poem, identifies in Helen an ideological cap with respect to the various ἄρισται women who make up the foils of an extensive *Priamel*.

36 For the "*hybristic* humanity", outlined in the *Catalogue*, see Strauss Clay 2003, 169 – 174.

37 On events connoting the story of Salmoneus θεομάχος and Tyro, see Dräger 1993, 54 – 60.

38 See De Sanctis 2006, 27– 33 and Nobili 2009, 105 – 110.

39 See Brillante 1983, 15 – 30. The story of Mestra according to Rutherford 2005, 114 – 117, testifies that "the *Catalog* sets out a link between Attica and the genealogies of the rest of Greece".

of lust, the ἠλοσύνη, which disfigures their virginal beauty (fr. 133 M.–W. = fr. 49 H. = fr. 82 Most).[40] And a fate similar to that of the daughters of Proitos falls to the daughters of Tyndareus (fr. 176 M.–W. = fr. *8 H. = fr. 247 Most) on which Aphrodite pours a κακὴ φήμη of bigamy.[41] These events to which other examples could be added lead to an inevitable conclusion: the heroic world described in the *Catalogue* is much less tetragon, so to speak, than that of the ἡμίθεοι that we find as strenuous fighters in the fourth races of the *Erga*. It has fragility, shows defects, reveals myopias that still place it in a stage of imperfection and which justify its inexorable extinction.[42] This situation is well exemplified by the eccentric behavior of Alcyone and Ceyx.

In the final part of the proem, through a connection joined to the *propositio thematis*, the relative pivot τάων, the *Catalogue* returns to the topic explained in the invocation to the Muses: of all the excelled women of the past the proem asks to sing with how many joined Zeus, Ares, Poseidon and the other gods. Yet, as I said, the *Catalogue* does not offer its numerous sections or narrative entries – followed by a genealogical return – in a repetitive and standardized way always starting from the union between a woman and a god. This is demonstrated, for example, immediately by the Aeolian stemma which was to unfold in the first book of the poem. In fact, together with Xouthos, Aeolus is the son of Hellen, born of Zeus and Pyrrha (frr. 1–9).[43] Offspring of κύδιμα τέκνα are generated from Aeolus and his wife Aenarete. It is, however, proposed a clear differentiation in the *Catalogue* between the male children of the couple who are listed in a short catalog and here characterized as θεμιστοπόλοι and the female descent of the couple which, in turn, is included in a shorter subsequent catalog (fr. 10a, 25–34 M.–W. = fr. 5 H. = fr. 10 Most):

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40 Costanza 2009, 12–14, distinguishes the version of the story between *Catalogue* (punishment of Era) and that of *Melampodia* with the wrath of Dionysus. The story about the Proitos' daughters in the *Catalogue* is part of a common narrative pattern in which a group of girls – as much as a single heroine – is punished by the divinity for incorrect behavior or vain speech. In this case, the Proitos' daughters are stained with arrogance towards Era, who spoils its beauty through the infamous ἠλοσύνη. The story is offered also, with exemplary function, in the XI *Ode* of Bacchylides (26–36 Irigoin). See Sevieri 2007, 219–220. For the relationship between the narrative of the *Catalogue* and the choral lyric see D'Alessio 2005b, 235–236.

41 See Finglass/Davies 2014, 308–317.

42 See Most 2008, 59–64, for the allusive terms in the light of which the *Catalogue* illustrates the end of the heroic world before the development of a new humanity. On the end of the *Catalogue* with the degeneration of the heroes, see now Scodel 1982, 37–40, De Sanctis 2012, 29–33, and Koning 2017, 101–103.

43 For the reconstruction of this first section of the *Catalogue*, linked to the genealogy of Pyrrha and Pandora, see Casanova 1979, 136–187.

Αἰολί⌞δαι δ’ ἐγ⌞ένοντο θεμιστ⌞οπόλοι βασιλῆες
Κρηθ⌞εύς τ’ ἠδ’ ⌞Ἀθάμας καὶ Σίσυφ⌞ος αἰολομήτης
Σαλμ⌞ωνεύς ⌞τ’ ἄδικος καὶ ὑπ⌞έρθυμος Περιήρης
Δηϊών] τε μέγ[ας.....] τ’ ἀριδείκετος ἀνδρῶν
[ἐν δώμ]ασιν ἠβώοντες
[τ]ἐκοντό τε κῦδιμα τέκνα·
αὖτις δ’ Αἰναρέτη τέκεν Αἰόλῳι] εὐνη[θ]ε῏ῖσ[α
ἠϋκόμους κούρας πολυήρ]ατον εἶδος ἐχούσας,
Πεισιδίκην τε καὶ Ἀλκυόνη]ν Χ[αρ]ί̣τεσσιν ὁμοίας
καὶ Καλύκην Κανάκην τε καὶ ε]ὐειδέ[α] Π̣ερι̣μήδην·

29 ἐν δώμ]ασιν Parsons-Sijpesteijn-Worp, *cetera* Mette 30 – 34 Parsons-Sijpesteijn-Worp.

While the events related to the male offspring of Aeolus and Aenarete, the set of children θεμιστοπόλοι, are entrusted to long sections of the first book, immediately after the list of the female daughters, Peisidike, Alcyone, Calyx, Canaces and Perimedes, in the genealogical return is dedicated to each of these heroines a section starting Perimedes. The poem remembers the union of Perimedes with Acheloos and perhaps her marriage with a mortal. Of course, mention is made of Hyppodamans, son of Perimedes and Acheloos according to the testimony of the *Library* of Pseudo-Apollodorus (1, 52). Hyppodamans marries a girl with an appearance equal to that of the Graces that generates Antimachus and Eurytes. In turn, Eurytes marries Porthaon and Oeneus, Alcathoos, Agrius and Pylos are born from them. They were killed by Tydeus, an illustrious knight, who in this way avenged the death of his father Oeneus. In just a few verses, the *Catalogue* therefore reaches Perimedes’ great-grandchildren. At this point instead of D) Canaces the γένος of C) Calyx is described as married to Aethlius and mother of Endymion, loved by Zeus and recipient of extraordinary gifts, including immortality. Endymion in turn becomes the father of Aethol who generates Calydon and Pleuron. Agenores was born from Pleuron, while Polycaste was born from Calone. If this reconstruction is plausible, in parental and genealogical terms, in this case too we reach the great-grandchildren of the Calyx. After Calyx’s γένος, the section dedicated to B) Alcyone (83 – 98) begins:

[ ]....̣παυσ̣α̣[
[ ].χ̣αλκοῦ ἐ̣ν̣ἐ̣ι̣..[
[ ]ηισ̣ιν ἀγαλλόμενος ..[
[ ] ἀνὰ δώματα ἠχήεντ̣[α
[ ]μεν̣οι καὶ μαψιδίηι φιλ̣ό̣τ̣η̣[τι
[ ].νόου βεβλαμμέ̣ν̣[οι ἐσθλοῦ.
Ζ̣[εὺς δὲ ἰδὼν νεμ]έ̣σ̣η̣σεν ἀπ’ αἰγλήεντος Ὀλύ̣μ̣π̣[ου,
καὶ τὴν μ̣ὲ̣ν̣ποί̣[ησε πατὴρ ἀνδρῶν τε θεῶν τε
ἀλκυό̣ν’, ἥ τ̣[

ἀνθρώπων̣ [
ναίει καί ῥ’ ἀλίοι[
Κήϋξ δ’ οὔτε π̣[
παύεται ἀΐσσω̣[ν
ἴεται Ἀλκυόνη[ς
ἀλλὰ Διὸς κρυπ[τὸς πέλεται νόος, οὐδέ τις ἀνδρῶν
φράζ̣ε̣σθαι δύ[ναται

89 νεμ]έ̣σ̣ησεν Parsons-Sijpesteijn-Worp, *cetera* West.

First of all, it is the only nucleus in the context of the Aeolian story that does not have a genealogical approach. Alcyone, in fact, after her marriage to Ceyx, begins to feed crazy thoughts of arrogance and pride against Zeus together with her husband to whom we can trace the participle ἀγαλλόμενος which underlines for man the sign of excessive pride.[44] The two sovereigns seem to be characterized by a rational clouding, perhaps affected in their noble mind by a sacrilegious pride, as evidenced by the expression νόου βεβλαμμέ̣ν̣[οι ἐσθλοῦ. Above all, their union is useless, vain, a μαψιδίη φιλότης, because it does not give rise to a descent. Also in this case it is possible to better understand the illegitimate actions carried out by the couple in the light of the Pseudo-Apollodorus (I 53) which follows, as has been demonstrated, in the first book sometimes the story of the *Catalogue* very closely: Alcyone claims to be Era, while Ceyx claims to be Zeus. For this reason, the father of the gods transforms the woman into a kingfisher and Ceyx into a sea swallow, as emerges from the remains of the P. Oxy. 2075 which reports the story narrated in the *Ehoiai*, revealing not only the tragic end of the spouses but also their drama that still persists today, νῦν, after the metamorphosis into birds with almost obsessive attitudes, intent on a desperate attempt to reunite.[45] The final comment proposed in the poem seems a significant warning that has universal validity: if it is impossible to know the decisions of Zeus, it is better that man and always stick to a righteous act so as not to incur divine punishment, according to a lapidary morality which the *Catalogue*, however, tends to repeat with frequency.[46] Moreover, the Aeolian section also reveals the benefit that derives from the re-

44 See Sammons 2017, 169–174.

45 On the metamorphosis that distinguishes numerous and salient moments of *Catalogue*, see Hirschberger 2008, 126–127: “così nelle storie di metamorfosi eziologiche, animali e piante, fonti e stelle, diventano reminiscenze degli incontri con il divino nella preistoria mitica”.

46 A similar judgment is also present in Sisyphus’ story (fr. 43a, 76–77 M.–W. = fr. *4 H. = fr. 48 Most). The background of archaic wisdom, through kenning, *gnomai*, portions with particular rhetorical and/or rhythmical elaboration that emerge from the Hesiodic *corpus*, is investigated by Ercolani 2017.

spect and love of the gods through a relative of Alcyone: Endymion, in hindsight his nephew as the son of his sister Calyx and Aethlios, who enjoys the περισσὰ δῶρα arrived from Olympus for being φίλος μακάρεσσι θεοῖσι (60 – 62).[47]

At the end of this analysis on the *Catalogue of Women*, I hope it is evident that the tradition in which this poem is inserted appears to be well considered within the early Greek epic. The *Catalogue* reveals important and heterogeneous aspects of this tradition from the numerous ideological points of view: the *hybristic* and fluid condition of the heroes, together with their ethic decadence, and the female supremacy of women on the genetic and intellectual field. The poem, therefore, serves also as a phase of reconciliation between two reflections into the Hesiod cycle from *Theogony* to *Erga*. Beyond the author or authors of this monumental poem, the *Catalogue of Women* remains a starting point for the subsequent literary reflection of the Greeks.

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47 See Cohen 1986, 135 – 137. D'Alessio 2005a, 180 f., discerns a contradiction between the events that have Endymion as protagonist in the Hesiodic *corpus*.

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 https://doi.org/10.1515/9783110751987-014

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 https://doi.org/10.1515/9783110751987-015